

Co-Morbidity of Post-Traumatic Stress & Related Disorders in Forensic Mental Health

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The University of Adelaide Centre for
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Clinical Practice

Michael Musker September 2013

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& Related Disorders in Forensic Mental Health

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Abstract

This study examines the South Australian Forensic Mental Health population in the context of Post-Traumatic Stress Disorder (PTSD), and other comorbid disorders such as illicit substance use, depression, and childhood trauma. A cohort of 39 forensic patients were interviewed using many internationally recognised tools such as the Clinician Administered PTSD Scale (CAPS), the PTSD Checklist (PCL), the Centre for Epidemiological Studies on Depression (CES-D), and many others. There are 23 research tools in total and each one is described in detail, describing cut-off scores and how they are used in practice. The results showed that patients identified on average 8 major stressful events; 33% (n=13) of patients had PTSD and 21% (n=8) severe PTSD. Most patients had comorbid symptoms with 90% (n=35) having tried drugs, and 72% (n=28) had taken drugs more than 100 times. A high number of patients actively sought help prior to committing their offence 44% (n=17).

The thesis provides the reader with some current and historical information about the concept of PTSD; how it developed in the literature; and its clinical history. Further to this it relates Forensic Mental Health issues such as homicide, acts of harm, and prison health. The author explores the role of crime types and how these relate to trauma, for example killing strangers, or killing a family member, or perhaps one of the most traumatic of events; killing your own child. Statistically the most common method of harming others is using knives, and the act of stabbing someone as part of a traumatising event from the perpetrator's perspective is explored.

The ethical issues; patient participation; interviews and data collection method are described to enable the reader to consider the same process for future studies. Then a descriptive analysis of the data is provided for each tool, listing the data in two formats; as it was collected by the tool; then in a sorted table to highlight the most frequently selected answers by the cohort. Issues of interest and notable data differences are discussed after each tool is presented.

A series of case studies are provided to bring the data to life, providing more detailed information about five selected patients. A brief de-identified description of the offence, the patient's experiences and their answers to the interview questions are woven into a case study format. The author provides some phenomenological viewpoints from issues raised and looks at some individualised risk issues that are indicated by each case. One particular issue that was of note across many cases was how memory of the offence is affected and this is discussed as a specific topic.

Finally, there is a discussion about the author's perspective of the research. Of particular interest is how we can use these research tools for risk assessment, to reduce future risk and prepare the patient for rehabilitation into the community.

Suggestions are made about offence work that should be completed prior to releasing patients into the community, and these recommendations are based on the attitudes, and patient's experiences discussed in over 250 hours of interviews across 350 research sessions. This is rounded off with a conclusion about some of the interesting points raised by this piece of research.

A comprehensive discussion and explanation of Post-Traumatic Stress Disorder (often shortened to PTSD) can be read in the Literature Review (section 2.2 Clinical History and Definition of PTSD).

Declaration

I Michael Musker certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I Michael Musker certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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NB: There is material referenced in this thesis, such as confidential audio recordings, original contemporaneous notes during interviews, and completed research tools that will not be available to the general public. The information was made available to supervisors for academic rigour only. Everything included within this submission may be made public.

Signed:

Michael Musker

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Professor Alexander McFarlane

AO, MB BS (Hons), MD, FRANZCP, Dip Psychother.

Primary Supervisor

Head of the University of Adelaide Centre for Traumatic Stress Studies: School of Population Health

Senior Adviser in Psychiatry to the Australian Defence Force

Past President International Society for Traumatic Stress Studies and the Australasian Society for Traumatic Stress Studies

Dr Kenneth O'Brien

Secondary Supervisor

Medical Director Forensic Mental Health,

Forensic Mental Health Service South Australia

Chief Forensic Psychiatrist

South Australia

John Bell

Provision of Clinical Supervision

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Forensic Mental Health Service South Australia

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Notes:

CHAPTER 1

INTRODUCTION

1. Introduction

1.1 Aims of the Study

This chapter briefly states the aims of the study describing the sample. The author discusses the uniqueness of the research, provides some autobiographical information, and explains the beginnings of the forensic service in South Australia and what is meant by a forensic environment. Some phenomenological aspects of the study are explored and the delicate nature of the research with such a vulnerable and disenfranchised group of people is touched upon.

The aim of this study was to explore the frequency of PTSD in the forensic mental health population within South Australia. In a sample of 48 patients (with 39 patients) how many will have PTSD? This will be assessed using a variety of internationally accepted clinical tools. In addition what is the frequency of other disorders that are comorbid with PTSD? Examples include depression, psychosis, and drug or alcohol disorders. The study will use a set of tools that was first used in the bushfire studies of South Australia (McFarlane, A. & Van Hooff 2009), and these are wide ranging. The expanse of tools examines a patient's view of the world, service utilisation, their childhood experiences, and more recent traumatic or upsetting life experiences. The instruments used are described in detail in the chapter 4 on study design (4.4), and further discussed in the research proposal which is presented in full as part of the appendices (part A). The data for each tool will be revealed in summary format in the section on corroborating tools and Data – [chapter 6](#).

All patients will be asked to participate in a series of interviews (approximately 5-10 interviews over a month) and these will be recorded. The data from the tools will be analysed and presented to the reader. Themes from the interviews will be explored in relation to the types of crimes that occur within the cohort, reviewing the frequency against types of crime, victimology, modes of assault, weapons used, and severity of offence. It is anticipated that those who commit more serious crimes against another person, particularly those who commit homicide, are more likely to experience trauma and ensuing PTSD.

Another aim of the study is for the author to gain a greater insight into the experience of patients within the Forensic Mental Health Service, discussing the actual offence with them and the concomitant effects. To this end a series of de-identified case studies will be completed and shared with the reader. These will be used to bring the data to life and examine the phenomenological aspects of the study. How do such potentially horrifying experiences affect the individual? Patient's comments and personal experiences in relation to their trauma will be explored.

To place this study into context with the data and experiences presented, it will be necessary to explore and review the PTSD literature, providing some background in relation to the public perception; arts and literature; mental health; forensic mental health; and crimes such as homicide.

In conclusion the usefulness of researching PTSD within a forensic environment and a discussion on the direction for future research will be considered.

List of Aims:

- To estimate the lifetime prevalence of PTSD and the types of traumas experienced
- To explore the diagnosis of current PTSD symptoms and its relationship with mental illness
- To examine the prevalence of substance abuse disorders in the research population
- To measure the expression of aggression and correlation to PTSD and mental illness
- To explore causal links between criminal offences against the person, post-traumatic stress and mental illness
- To identify specific cases and frequency of 'Perpetrator Induced Traumatic Stress' (PITS)
- To identify trends in symptomatology such as suicidality, anxiety and depression.

A comprehensive discussion and explanation of Post-Traumatic Stress Disorder (often shortened to PTSD) can be read in the Literature Review (section 2.2 Clinical History and Definition of PTSD), but here is a quick overview of the concept of PTSD and how it might affect the actors involved.

1.2 Overview of PTSD and Perpetrators

Post-Traumatic Stress Disorder is now well recognised as a major mental health disorder. It is essentially a severe reaction to a specific incident, or series of incidents. These events often invoke great fear, horror, and shock to either the perpetrator or a witness to the event. Whilst you might not initially think of a perpetrator when you consider them suffering shock or horror from their own actions, consider the following issues. Soldiers are now returning from war zones suffering from post-traumatic stress disorder because of their involvement in violent events, such as bombing, shooting, and incinerating their enemy. It is not just the fear for their lives that cause this shock, but also the sights they see and the consequences of their actions. A similar issue of stress induced trauma after killing is seen in police, doctors and rescue personnel. These are all unnatural happenings and start to haunt the person who witnessed or who were involved in the actions of the event.

The symptoms cover three key areas including 'Re-experiencing' the event and the most common form of these is flashbacks or nightmares. These can be so severe that the person is taken back to the event, re-living it with vividness that involves all the five senses. The sufferer may not be able to get the thoughts out of their head, making it impossible to concentrate on everyday events like reading, or watching television. Small reminders of the event may be enough to cause them to re-live the event all over again, resulting in the person being incapacitated by their memories of the traumatic event.

The anxiety and stress from these memories can result in the second key symptom area 'Avoidance'. This can include a complete memory loss of the event to the point whereby the person is convinced the incident didn't happen. For some it may just involve partial memory loss whereby they remember snippets of the event. If you imagine a car crash where you might remember crashing, but not much before it, yet you are able to remember little pieces in the days following the event. There are other people who will have full and clear memories of the event, but because of the anxiety or guilt feelings that occur when they remember, they do everything they can to prevent these memories. This can include avoiding places, or refusing to talk about it, to the point that it becomes almost phobic.

The last key symptom is 'Hypervigilance' which is like a physical nervousness, particularly when a noise, smell or sound similar to the traumatic event sets the person on edge or even into a panic. For example a loud bang might make a soldier think a gun has gone off, causing them to dive for cover. Again such reminders can throw the person back into a full re-living experience of the event, or may just cause heart palpitations, sweating and deep breathing – a form of panic attack. These concepts are discussed in detail in Chapter 2.

1.3 Chapter Outlines

Chapter 1: Introduction

Briefly states the aims of the study describing the sample. The author discusses the uniqueness of the research, provides some autobiographical information, and explains the beginnings of the forensic service in South Australia and what is meant by a forensic environment. Some phenomenological aspects of the study are explored and the delicate nature of the research with such a vulnerable and disenfranchised group of people is touched upon.

Chapter 2: Literature Review

The concept of Post-Traumatic Stress Disorder (PTSD) is looked at in more detail, starting with how the literature was reviewed, its historical links within art and literature. The diagnosis of PTSD has many controversies surrounding it, particularly during its humble etymological beginnings, when it was questioned whether it was even a disorder at all. The DSMIV-TR criteria are listed and statistics such as the Australian National Mental Health Survey are cited, along with various studies in mental health and the comorbidity of PTSD. The links of PTSD, mental health and crime are explored. Homicide specifically is discussed as this is a focal point of the research and there are many studies and articles that make reference to trauma in this area. The literature review prepares the reader for the next section on modes of crime and weapon use.

Chapter 3: Homicide and Themes of Hurting Others

The inspiration of this study is partially from a book by Rachel McNair (MacNair 2002) who writes about perpetrator induced trauma. This chapter looks at the types of crime, modes of weapon used, and methods of harm by the patients in this cohort, linking the data from the study to these areas. The reader should be aware that some details are graphic and can be upsetting for some, particularly the section on killing children. Forty percent (40%) of the overall cohort used knives in their offences and this is the most common form of weapon used in homicides in Australia. Stabbing offences therefore are reviewed as a theme that recurred throughout the interviews with patients.

Chapter 4: Study Design and Methods

Ethical approval was a significant aspect of this research due to the status of the patients as both incarcerated and vulnerable mental health patients. The nuances of these circumstances are described and reviewed. The unit has a slow turnover and choosing patients was not straight forward, how patients were selected, the consent process and support mechanisms are described. There were many tools used in this research and each one is described in detail, with a brief description of how they are used, their cut-off scores or scoring methods, and comparative scoring is provided. Each tool is listed in alphabetical order. The demographics of the cohort such as age, gender, level of education, and others are listed here. The interview process was lengthy and complex, and there were many issues along the way. The author shares some insights around the interview process and the difficulties of completing research with forensic patients in a maximum security facility. The method of data collection and data storage is also described.

Chapter 5: Analysis of Data

We start with looking at who participated in the research, but also discuss non-participation and how this occurred. The population within the study and their offence type are stated for all patients asked to participate. The data is then honed to the actual participants and successful interviews which is the sum of 39 patients. The relationships to the victim are explored and these are compared to some of the national crime data. The Clinician Administered PTSD Scale (CAPS) is the focal point for the research, being the gold standard tool in the study of PTSD. Part of this interview process involves asking patients about their trauma history and the multiple types of trauma and the data around this topic are described. Detailed data from the cohort on each DSMIV-TR symptom is provided and these are divided into re-experiencing, avoidance, and arousal symptoms. A data analysis between crime type and various PTSD tools is provided. A categorical analysis of the cohort by crime type and gender is also listed.

Chapter 6: Corroborating Tools and Data

A wide variety of clinical / research tools were used to explore comorbid conditions and experiences in this population. Tools like the PTSD checklist Civilian Version (PCL-C) would be used as a screening tool as this can be administered in a brief period. The questionnaires travel across a broad range of conditions from a biological, psychological and social perspective. Looking at conditions like depression, psychosis and aggression. They also include questions about relationships with families, childhood abuse, financial circumstances, previous health issues, and quality of life matters. Each clinical / research tool is looked at in turn and the data findings provided. In most cases the data is presented in

order of frequency of responses. Then cumulative scores and averages describe the trend for the cohort.

Chapter 7: Comorbidity of PTSD in Forensic Mental Health

Comorbidity can mean different things depending what is being presented, but in mental health it usually refers to alcohol and substance abuse co-existing with another disorder. It can also mean two other types of disorders co-existing such as intellectual disability and schizophrenia for example. Firstly we will look at the comorbidity of alcohol and substance abuse. Secondly smoking was extremely common amongst this population and the extent of it, the age of onset and health interventions are discussed. The data for comorbid conditions is provided in [section 6](#), but further discussion about comorbid mental health issues and PTSD are explored here.

Chapter 8: Case Studies – PTSD Explored

Five case studies from the cohort of 39 have been used to bring the data to life and to provide some context around offences such as homicide, filicide and attempted homicide. The experiences of some of the patients are provided in more detail, and these are described alongside the data of their specific results for most of the tools utilised. It allows the reader to enter into the phenomenological aspects of the research whilst being provided with the empirical data to support these phenomena. Every case in the study was extremely interesting and provided a wealth of information, but only a few were selected across the crime types. A sample of each gender has been selected. A separate case of filicide is detailed, and even though there were 3 cases within the study cohort and included both genders, only 1 case is presented due to the limitation of wordage in this thesis. It was difficult to provide the reader with all the details and some cases have had to be edited in order to protect the identity of the participant. Some of the richness of the information was therefore lost, but the author has also made the decision to spare the reader from some of the more disturbing aspects of the qualitative information obtained.

Chapter 9: Discussion & Future Research and Recommendations

Here the author discusses what research with forensic patients and the area of trauma could be further explored and undertaken. With the experience of completing a series of interviews in a small population, some recommendations of what could be done differently for other studies and what lessons have been learned are considered. Additionally, some tentative comments about the course of treatment of offenders are proposed, discussing the importance of offence work prior to discharge.

1.3 Phenomenological aspects of this study

The author has worked in Forensic Mental Health for 28 years, both in the UK (16yrs) and Australia (12yrs). This study was completed over 6 years whilst working in the Forensic Unit for South Australia, James Nash House. The population studied is small (n=39) and was an in-depth focus on a group of patients who entered the Forensic Unit during the period of study. The Forensic Mental Health service provides mental health care to those who have committed a crime or are on remand and become ill whilst in prison. The main function of the service is to care for those found not guilty by reason of insanity (or locally referred to as mental impairment). The service covers the whole of South Australia and serves a population of around 1.6 million people (ABS 2012), providing mental health care for all prisons (n=8) across the state, the largest being Yatala Labour Prison with a population of approximately 500 prisoners. On 30th June 2010 there were 29700 prisoners in Australian Prisons, 21% of these were on remand (n=6364). Ten percent (10%) (n=males 2112; females 184) of these had committed homicide and seventeen (17%) (n=males 3717; females 253) had committed assault (AIC 2012). Further information about the unit and the local prison / forensic population is provided in appendix D.

James Nash House was named after the Second Colonial Surgeon Dr James Nash who highlighted the plight of the pauper lunatics in prison, specifically the prison on North Terrace known as Adelaide Gaol and he assisted in admitting them into hospital. Dr Nash identified to the Governor as early as 1845 that “eight male and four female lunatics were being segregated in the Gaol” (Goldney 2007). The Lt Governor Robe asked Dr Nash to pick a site for the new hospital in 1849, and 3 years later the 60 bed Adelaide Lunatic Asylum was built in 1852 at a cost of £6000 (Piddock 2004). The South Australian Forensic Mental Health Service (James Nash House) currently has 40 beds, and supervises approximately 250 patients within the community. This was the first independent forensic mental health unit built in Australia and was developed under the governance of Dr Kenneth O’Brien, Chief Forensic Psychiatrist for the State. There are four wards within the unit ranging from Acute (8 beds), Sub-Acute (14 beds), and rehabilitation (10 beds and 8 beds). There is a multidisciplinary team consisting of nurses, occupational therapists, psychologists, social workers, medical staff and a comorbidity worker. The unit is the maximum security mental health unit for the state and does not have guards as some people suspect, as security and restraints are managed by the clinical team. Forensic Mental Health is different from general mental health care, in that nurses for example have to search patients and their rooms, count cutlery in and out, and sign out simple objects like a pen, or nail clippers in order to ensure everyone’s safety (Martin 2001; Mason 2002; Walker 2007). It is necessary to provide a therapeutic environment whilst maintaining a safe level of security. Patients are locked in their rooms at night,

and are not allowed to leave the enclosed unit during the day, except to go into the courtyards within the building.

In order to complete the interviews and questionnaires, it was first necessary to develop a relationship with each of the patients, as the author would be asking extremely personal and confronting questions. The patient had to have committed their offence at least one month prior to the interview, and also had to have been admitted to the service for at least the same period. Many patients would be too psychotic or traumatised to approach prior to this period. A good example was one that involved a patient who had killed her relative. When the author attempted to interview her 4 weeks after admission, she had agreed to talk, but expressed that it was all too soon to talk about her offence in detail and needed a bit more time. The patient was also still suffering from hallucinations and shock. When discussing these aspects of the study, it highlights the importance of ethical approval and the precautions taken to prevent re-traumatisation.

The author has a lengthy experience of working with this client group, and presented the study to two ethical committees, both health and the prison committee. All patients were approved by their Consultant Psychiatrist and clinical care team prior to the authors approach, and the primary nurse on the day would be involved before each interview. The team psychologist was on call to provide any additional support if any of the patients expressed increased trauma or symptoms. The need to build a trusting relationship with the patient in order to ask them difficult questions was crucial to this study, and the position of the author being the senior nurse within the Forensic Mental Health Service for the period of the study makes this thesis unique and difficult to replicate. The study hopes to capture some of the phenomenological experiences expressed by the patients and the author.

When completing research in a custodial environment, particularly those with vulnerable patients, the researcher has to have a heightened awareness of the power dynamics involved. There is support in the literature that even people with a severe mental illness in a custodial environment, participants have the capacity to give consent (Moser et al. 2004). There are increased concerns and debate in the literature about those in forensic environments who are both prisoners and mentally ill, but research around ability to consent in relation to severity of illness have demonstrated that concerns are unwarranted and that patients are quite capable of given consent for participation (McDermott et al. 2005). Other research suggests that patients who suffer from a chronic illness such as Schizophrenia, particularly those in long term care, may have some impairment in their ability to provide consent. This does not mean they should be excluded from participation, but a 'substitute decision maker' may be involved (Kovnick et al. 2003).

The author was fully aware of the relationship dynamics involved and has published an article on 'Applying empowerment in mental health practice' (Musker

& Byrne 1997). To redress the balance 'substitute decision makers' were involved at various stages of the research process. The Multidisciplinary Care Team would be approached in the first instance, and then a separate discussion would occur with the consultant prior to starting the research. Prior to approaching the patient at any stage of the research, the primary nurse would provide a handover and a discussion would occur to see if the patient was well enough to participate. The patient would initially be approached for a discussion and then asked to sign the consent forms, whilst having an opportunity to withdraw at any stage. This happened with some patients who found some of the questions too personal or overwhelming. A debriefing interview occurred one week following the completion of interviews when a feedback questionnaire was used to gauge the patient's perceptions of participation (see section 6.32).

The author met on a regular basis with two academic supervisors to discuss patients who took part in the research, and where there were any concerns about approaching individuals, this would be worked through. This involved questions around burdening the patients with further reminders of their stressful incident, their stage of care such as level of acuteness, and symptoms like suicidal ideation or perseverative thinking.

The insights experienced during the study will be of interest to all forensic mental health practitioners, mental health clinicians and patients. Human beings are complex and each one of us is unique and whilst we attempt to categorise people and disorders using the Diagnostic Statistical Manual, the individual stories don't always fit into these moulds. There are however common themes that occur during and after traumatic experiences and this study will review the commonality of PTSD symptoms following serious offences such as homicide and serious assaults (these crimes often involve the use of weapons such as sharp instruments).

It is hoped that this knowledge can be used to understand what happens to people in the wider world and other arenas, such as police, soldiers, trauma workers (for example paramedics), executioners, where killing and injury is caused as an outcome of their direct action or line of work (MacNair 2002). There is a phenomena where police are forced to become perpetrators, because the person wants to commit "suicide by cop" through cases of justifiable homicide (Mohandie & Meloy 2011). Even more tragically some police even force their colleagues to shoot them in the same "suicide by cop" method, no doubt such an event would be even more traumatic for the officer who has to fire the gun (Arias et al. 2008). There are many circumstances in our society where people are killed by accident, in the workplace, in their homes, or on the streets. An example might be how parents reverse down their driveway and kill their child. All such events are going to have enduring traumatic responses.

1.4 Qualitative vs. Quantitative Methodology

Due to the amount of research tools being used, it resulted in the majority of information collected being directed by the structure of the questionnaires. The only questionnaire that allowed for unstructured dialogue was the Clinician Administered PTSD Scale (CAPS). Even the CAPS however had structured questions within each section (see copy in appendix G), limiting the interviewers ability to explore issues raised by the patient. It was the intention at the outset to compare the data of the different crime types against various comorbid conditions and trauma, but following the initial data analysis, it showed that the group was too small and that statistically the differences were not significant – see section 5.7 '[Comparison of Data across Offense Type](#)'. Hence the move toward a descriptive analysis of the data, reviewing frequency of conditions such as illicit substance use, types of weapons used, and specific symptoms that were highlighted by each tool. Rather than a thematic analysis such as the grounded theory model described by Barney Glaser and Anselm Strauss in the 1960's, the author utilised topics that had been listed in other national studies on homicide and those of the Australian Institute of Criminology such as the National Homicide Monitoring Programme (NHMP) which has identified 77 variables used in Australian national research (AIC 2006, 2008). These are very detailed reports and are freely available on the Australian Institute of Criminology Website, allowing for comparison against a fixed data set that is collected regularly:

http://www.ssaa.org.au/research/2008/2008-12_homicide-Australia-monitoring-program.pdf

Examples of National Data Collected:

- Racial appearance of victims
- Marital status of victims
- Victims employed at the time of the incident
- Victims with a criminal history
- Victims by alcohol and/or illicit/prescription drug use
- Victims killed by a mentally disordered offender
- Victims by cause of death (number)
- Victims by cause of death (percentage)
- Victims by type of weapon (number)
- Victims by type of weapon (percentage)
- Victims killed with a handgun or other firearm
- Licence and registration status of firearms used in homicide
- Victims by alleged motive
- Gender of offenders
- Age of offenders
- Homicide offending, by age and gender

- Racial appearance of offenders
- Offenders by marital status
- Offenders employed at the time of the incident
- Offenders by alcohol and/or illicit/prescription drug use
- Offenders with a criminal history
- Offenders who committed suicide prior to or following arrest
- Domestic violence history
- Relationship between victim and offender
- Relationship between victim and offender, by gender of offender

Adapted from Homicide in Australia: 2004–05 National Homicide Monitoring Program (NHMP) annual report (AIC 2006)

Examples of themes from the ‘forensic health’ literature

- Stranger Killings (Nielssen, O. et al. 2011)
- Family Homicide / Parricide / Siblicide / Intimates (Mousoz & Rushforth 2003)
- Filicide (Laursen et al. 2010; Valença et al. 2011)
- Weapon use (firearms; blunt; knives; other) (Catanesi et al. 2011)
- Gender (Flynn et al. 2011)
- Trauma Symptoms (Zinzow et al. 2011)
- Wounding, Blood and Injury (Pollock 1999; Shalev, Schreiber & Galai 1993)

Where themes were of high frequency in the quantitative data such as the use of knives, stranger homicide, drug use, and specific PTSD symptoms such as memory loss, then these themes were discussed further.

Each tool has presented some interesting results in relation to those suffering from Post-Traumatic Stress Disorder within a forensic environment. An example being the inability to remember in full what has happened during the offence behaviour. This was different for each case, and presented an opportunity for the author to explore these phenomena in more detail, using both the data and the discussion held with patients during the CAPS interviews. Some quotes from the interviews are used to reinforce the individual’s experience. The CAPS however used a systematic approach looking at 17 different types of trauma that were pre-determined by the tool itself, asking the patient if they had experienced any or multiple types of those 17 listed traumas. This categorical approach essentially steered the patient to focus on their most traumatic event.

In order to bring the data together with the qualitative experience of the patients, a mixed method of both qualitative and quantitative approach was used to present some cases studies. Case studies are often used when there are small populations to study and have been used in many seminal works that have

informed the way we practice today, examples include Goffman's early work on "Asylums", or the "Rosenhan Study" (Whitley 2009). Case studies bring to the fore the human encounter between practitioner and patient, allowing researchers to document the unique and complex experiences that occur (Chan 2009). Qualitative Case Study Methodology (QCSM) has varied widely across the last decade, but one of the principles of QCSM is that it allows nurses to study and describe these complex issues in a specific context such as forensic environments in the form of case study (Anthony & Jack 2009). Utilising various forms of information in this way such as literature reviews, case study and empirical data has been described as an 'integrative review method' which adds to knowledge in the form of a better understanding of a phenomena that was not there before (Whitemore & Knafel 2005).

Specific issues that became apparent when reviewing the literature and analysing the demographics was the 'type of homicide' and 'types of weapons' used. The Australian Institute of Criminology already collects data on these elements and allowed the author to draw on this set of criterion to evolve various themes from the interviews. An example is the relationship of the perpetrator and the methodology of hurting others. Three key relationships were formulated; killing family members; killing strangers; and killing children. As mentioned earlier, these 77 variables are all collected as part of the national statistics on homicide which have been gathered since 1989 as part of the National Homicide Monitoring Programme; the data collection is informed by police records from around Australia (Mouzos 1999).

Similar data gathering systems are used across the world and one major report that provides for international comparison is the "SAFETY FIRST: Five-Year Report of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness" (Appleby et al. 2001). Such landmark inquiries assisted in identifying themes that have been used for sorting data for events that involve harming others. Many of the offences discussed in this study were an act of attempted homicide rather than homicide; however the intention of the act was the same. It is only fortune and circumstance that prevented the incidents resulting in death. The method of assault also produced interesting groups, again through statistical significance in the literature and as part of the literature review. Stabbing for example is the most common method of assault in the national statistics and it proved similar in this study, so the data and various types of assault are explored from the perspective of frequency across types.

On hindsight there was so much data collected that it became unwieldy and the mere task of computerising the data from the questionnaires and interviews became a major task in itself. It was collected in an excel spreadsheet, with each data item being collected against the patients number, allowing for descriptive analysis against gender, and for grouping of those with a positive score of PTSD that fell within the clinical range. Additionally, the median, mode and frequency

across genders were analysed. The Composite International Diagnostic Interview (CIDI) tool was used as part of a computerised programme, which provides an output of diagnosis. When criterion for that diagnosis is met fully or partially, a positive diagnosis is reported. This has been used in many international studies (Kessler & Ustun 2004). It is hoped that researchers and people involved with mental health will find this thesis of benefit in preparing for future research in this area and to provide a better understanding of human beings who fall into the pathway of the forensic mental health system. If nothing more, the author has gained a more holistic view of the forensic patients as people with complex stories and life experiences (Musker 2005). This has led to deeper and closer relationships with the patients within the author's care.

CHAPTER 2

LITERATURE REVIEW

2. Literature Review

In this chapter the concept of Post-Traumatic Stress Disorder (PTSD) is looked at in more detail, starting with how the literature was reviewed, its historical links within art and literature. The diagnosis of PTSD has many controversies surrounding it, particularly during its humble etymological beginnings, when it was questioned whether it was even a disorder at all. The DSMIV-TR criteria are listed and statistics such as the Australian National Mental Health Survey are cited, along with various studies in mental health and the comorbidity of PTSD. The links of PTSD, mental health and crime are explored. Homicide specifically is discussed as this is a focal point of the research and there are many studies and articles that make reference to trauma in this area. The literature review prepares the reader for the next section on modes of crime and weapon use.

Literature Search (September 2011)

Using the common academic search databases for the term PTSD comes up with vast numbers of articles and texts, which means that it is necessary to hone the search for the specific area that you are looking at. For example if you want to narrow the search down to 'Forensic and PTSD' then the results are fewer, but the term forensic also has a wide scope. Here are a few examples of search results:

Term PTSD

- **Science Direct**
 - PTSD = Journal (14,529) Book (1,235) Reference Work (324)
 - PTSD & Forensic = Journal (855) Book (130) Reference Work (27)
- **Pub Med**
 - PTSD = 19,081
 - PTSD & Forensic = 259
- **Scopus**
 - PTSD = 12,343
 - PTSD & Forensic = 551
- **Google Scholar**
 - PTSD = 128,000
 - PTSD & Forensic = 9870

Clearly there is no shortage of material and this can be aggregated into various themes such as homicide, killing, criminal, perpetrators, and mental health. Endnote © was used to create 'smart groups' and sort literature into themes from the articles of interest that were found (n=3881). The distribution of these themes that contained the word 'PTSD' and another significant item was: 'mental or psychiatric' = 528; 'Murder or Homicide' = 172; 'forensic' = 131; 'prison' = 59; 'Kill' 29; and those articles that contained a stabbing reference within the text = 87.

There are many comprehensive texts on PTSD such as 'Traumatic Stress: the effects of overwhelming experience on mind, body, and society' (Van der Kolk, McFarlane & Weisaeth 1996), which explore the nature of PTSD and the biopsychosocial effects on health. There are few texts about Perpetrator Induced Traumatic Stress (PITS) and there is only one key text found in this area 'Perpetration-Induced Traumatic Stress: The psychological consequences of killing' (MacNair 2002), which explores the need for research in this area, and reviews killing from the experiences and angle of many different professions health professionals, soldiers, police, and executioners. There are many articles on the treatment of PTSD and a group of prominent writers in the area of PTSD have developed a database called PILOTS (Published International Literature on Traumatic Stress) under the auspices of the National Centre for PTSD led by the Executive Director Matthew Friedman MD, PhD, which allows the researcher to search through the database at no cost (Foa et al. 2000). The PILOTS database provided the following quantity of published works for these topics with PTSD and other subjects in the title (searched on 10th June 2012):

- Homicide or Murder = 130
- Forensic =184
- Mental or psychiatric = 4371
- Prison = 40
- Stabbing = 1

A very similar study to this PhD thesis is 'Post-traumatic stress disorder in forensic inpatients' (Spitzer et al. 2001). This was a study of 53 forensic patients in two maximum security forensic facilities in Pomerania, Germany. Fifty six percent (56%) of the patients in the Spitzer study were found to have lifetime symptoms of PTSD, whilst fifteen percent (15%) had current symptoms. The Spitzer study was only an analysis of PTSD frequency at a quantitative level, whereas this study records the experiences of the perpetrator, and places them into the context of an holistic view of the individual, including their crime, their lifestyle (including illicit substance use), and their physical and psychological health. This study also uses many other tools to corroborate and assess the symptoms being experienced by the patient.

2.1 The concept of PTSD: Historical literature

The concept of Post-Traumatic Stress Disorder (PTSD) was reportedly first documented following the death of the Sumerian King Urnamma following his death in battle and the reaction of the populace (Ben-Ezra 2011). In earlier centuries PTSD has been described in many terms, and the symptoms have been related as far back as 1666 to descriptions of trauma, when the diarist Samuel Pepys' described the emotional effects of the fires of London (Daly 1983). Other authors have suggested that descriptions of PTSD go back as far as ancient Sumerian times 3000 BC, an example being the Epic of Gilgamesh, a story found on clay tablets which describes how he witnesses the death of his close friend and

then fears for his own life. It further describes multiple symptoms similar to those described in the DSMIV-TR for PTSD such as being terrified, fearful, reliving the event, and sleeplessness (Ben-Ezra 2011; Ford 2009). Moving onto Greek historians such as Herodotus who described the symptom of dissociation during the battle of Marathon 490 BC or even the Roman historian Pliny the Younger tells of the reactions to a natural disaster like the volcanic eruption of Mount Vesuvius in AD 79 (ibid).

There are numerous historical references in popular literature such as the Shakespearian play Macbeth written in 1604, where Lady Macbeth is observed by her doctor to be having a kind of night terror or waking nightmare **'yet all this while in a most fast sleep'** whereby she appears to be dissociating and seeing the blood of her victim on her hands crying out the famous line **'Out, damned spot! Out I say'**, then goes on to reflect on aspects of the King's murder;

- 'Yet who would have thought the old man to have had so much blood in him'
- 'What, will these hands ne'er be clean?'
- 'Here's the smell of the blood still: all the perfumes of Arabia will not sweeten this little hand' (Macbeth Act V Scene I).

The theme of the victim's blood and the effect it has on the perpetrator is significant in that a typical nightmare or flashback will have an aspect of the victim's blood signifying the taking of life, and that almost on an instinctive level it identifies the wrongdoing or unnatural act of murder. In one interview from this research project the patient states that he awoke from his dream:

"I felt like I had blood all over me, after I woke up I couldn't get back to sleep.... because when I woke up, I was either stabbing him at the end or stabbing myself I can't remember exactly, but I woke up thinking I had blood all over me and I had to get out of bed and go and have a drink of waterI touched myself to see if I had blood all over me"

(Audio interview DW A0021 28:00)

Macbeth the perpetrator who murders the king in the play fares no better than his partner stating that he hears a voice saying 'sleep no more', he describes how noises appal him, and again expresses his horror at the sight of the blood of his victim;

- 'How is't with me, when every noise appals me? What hands are here? ha! They pluck out mine eyes. Will all great Neptune's ocean wash this blood Clean from my hand?' (Macbeth Act II Scene II). (Shakespeare 2008)

Both protagonists in the play make reference to blood and their sleep disturbance and interference with sleep was another common feature of patient's reaction to their offence, and when one patient was asked if they could describe a typical dream stated:

"Well I think that's reliving it, not dreaming about it; reliving it"

(Audio interview DW A00353 7:00)

Both of the above patients said that they dreamt about a different outcome in their dreams in that the victim was still alive, the first patient referring to stabbing himself in the dream to prevent himself from killing the victim:

“I had a dream when I woke up screaming I’m back in the street with the knife in my hand and I’m walking down the street and I feel right, I’m going to have to kill him or I’m going to die or something like that and I’m trying to stab myself. I’m trying to kill myself but it won’t go in ... I have to kill him before he gets me – that’s not what actually transpired, that’s what I’m dreaming.” (Audio interview DW A0021 27:00)

When asked why he was stabbing himself in the dream he stated: ***“because I wanted to die instead of killing him.”***

Another patient stated:

“Well in my dream sometimes I take a different sort of measure, I don’t do what I did to her She’s still alive ... like in the dreams I make it go different” (Audio interview DW A00353 7:00)

It appears that both witnesses and perpetrators attempt to use their dreams to try and manipulate the course of events, taking the opportunity to talk to their victims, attempting to redress some balance in their mind, only to wake up to find that they cannot change the past.

It is clear from these patients’ recollections of dreams that the mind is in crisis and is attempting to sort out or manage the trauma through such dreams. In fact one treatment uses this flashback or reliving phenomena in an attempt to work through traumatic events, using the body’s natural processes and ability to replay or re-visualise the event. This is known as EMDR or ‘Eye Movement Desensitization and Reprocessing’. Pollock (2000) cites the case of treating a gangster who is also a hit-man who is suffering from severe PTSD symptoms, by using EMDR on a perpetrator who had shot his victim. He cites an interview held with the perpetrator;

“he was crying, begging, talking about his children ... I told him to shut up, he knew what was going to happen ... he asked for a cigarette, I gave him one, he was buying time, I was becoming more agitated listening to him, then I looked straight into his face and shot him in the head ... blood spurted on my suit, he fell I had to step over him and slipped in the blood and fell on top of him, I panicked and ran.”

EMDR is a therapy that asks the patient to re-visualise an important aspect of their trauma whilst making saccade-like eye movements. This successive repetitive action is thought to support cognitive reprocessing around the memory or intrusive thought (Ohtani et al. 2009). The hit-man being treated was asked to focus on a detailed image of the scene to which he chose and reported the victim’s pleading face, the sound of the shot being fired and the warm blood on his right hand. He stated that the most significant negative thoughts about the event that expressed

his horror was the fact that 'he has touched me' that is he felt 'infected' by the blood (Pollock 2000). The perpetrator was so traumatised by the actual event to the point that he wanted to kill himself to prevent the nightmares. Even though it was suggested that he may have killed many others, this one event had the victim and images fixed in his mind. Following the EMDR treatment however, the vividness of the images waned as if dissolving the detail of the murder. Changing the quality of the memories and the patient was able to sleep without nightmares. Whilst such treatment worked out to be effective, it raises questions about the role of practitioners in treating perpetrators. For example is such suffering part of the remorse process or is the practitioner's role to ease suffering?

The concept of PTSD has never been without controversy and became more prominent following the industrial revolution. With the introduction of technological advancements like railways, there came industrial accidents and injuries which led to terms like 'Railway Spine', or 'Compensation Neurosis', the current British Law term being 'nervous shock' (Hall & Hall 2006). The great wars and their obvious traumas introduced a set of symptoms that were commonly known as 'Shell Shock' and this was related to the reference of the great explosive sounds made by the shells as they were discharged "sudden or prolonged exposure to forces generated by high explosives" (Mott 1917). However a War Office report wanted the term excluded from the official nomenclature and this is just one example of how PTSD went on to become a controversial diagnosis, particularly in relation to the courts and compensation law (Mendelson 1987).

PTSD is now regularly being used in the courts as part of a defence strategy for many forms of legal relief, such as claims against employers for compensation and are now responsible for around 14% of all occupational disease claims (Appelbaum et al. 1993). PTSD has been used as a criminal defense in the form of insanity, unconsciousness, self defense, diminished capacity and sentencing mitigation, but has had inconsistent responses from the court (Berger, McNeil & Binder 2012). Malingering cases and embellished presentations have diminished the validity of this type of defense and this had led to calls to the psychiatric profession to tighten up on diagnostic criterion (Hall & Hall 2006).

It has been stated that Trauma Related disorders and mental disorders are considered amongst the five most costly disorders in America and that the costs increased by two thirds in the period 1999 – 2006 to \$58 Billion, according to the Agency for Healthcare Research and quality www.ahrq.gov .

“Heart disease, cancer, trauma-related disorders, and asthma joined mental disorders to comprise the five most costly conditions in both 1996 and 2006”

(AHRQ 2009)

Many PTSD synonyms are descriptive in their origin and relate to specific contexts like concentration camps, which is simply named 'Concentration Camp Syndrome' (Van der Kolk, McFarlane & Weisaeth 1996). 'Shell Shock' and 'Combat fatigue' were used in World War II when soldiers were considered extremely fatigued and

stressed, whereas in the 1970's the concepts became even more specific referring to types of assaults, such as 'Rape Trauma and Battered Wife Syndrome' (Rosen & Frueh 2010). As you can see from the table below the amount of terms has become unwieldy and they are often pejorative in nature, particularly around references of compensation and malingering, where no clear physical ailment or aetiology is apparent.

Figure 1 Some pejorative and common terms associated with PTSD

- Accident aboulia
- Mediterranean (back) disease
- Accident neurosis Neurotic neurosis
- Accident victim syndrome / Post-accident anxiety syndrome
- Aftermath neurosis
- American disease
- Attitudinal pathosis
- Battered Women's Syndrome
- Combat Fatigue
- Compensation hysteria / Compensationitis
- Compensation neurosis / Entitlement neurosis
- Concentration camp syndrome
- Da Costa's Syndrome
- Erichsen's disease
- Functional overlay
- Fright neurosis
- Greek disease
- Greenback neurosis / Gross Stress Reactions
- Justice neurosis / Litigation neurosis
- Post-traumatic syndrome
- Profit neurosis
- Railway brain / Railway spine
- Rape Trauma Syndrome
- Secondary gain neurosis
- Shell Shock
- Syndrome of disproportionate disability
- Traumatic hysteria / Traumatic neurasthenia
- Traumatic neurosis
- Triggered neurosis
- Unconscious malingering
- Vertebral neurosis
- War Neurosis
- Wharfie's back
- Whiplash neurosis

Adapted from (Mendelson 1987) page 46; (Van der Kolk, McFarlane & Weisaeth 1996) page 129 ; (Rosen & Frueh 2010) page 6.

2.2 Clinical History and Definition of PTSD

Early psychiatry has described symptoms of PTSD using a variety of names and it wasn't until the 1980's that it was formally accepted into the DSMIII and now more clearly defined in the DSMIV-TR (APA 2000). The aetiology of PTSD is based on 3 key symptom areas including re-experiencing (1 of these 5 symptoms is required); avoidance, numbing and emotional responses (3 of these 7 symptoms are required); and increased arousal (2 of these 5 symptoms are required) (Breslau 2009). There has been lots of controversy of whether PTSD should be considered a separate disorder, but as more soldiers return from war zones like Afghanistan, and Iraq, the heavy toll of PTSD is becoming apparent. Affecting both individuals and families with a newly named phenomenon referred to as 'Trauma Centrality' whereby the traumatic events become the main focus of the person's life (Brown et al. 2010). The current DSMIV-TR (APA 2000) draws all these conditions together and identifies 17 symptoms under 309.81 (page 463) as listed in its entirety below:

Figure 2 Diagnostic Criteria: DSMIV-TR

309.81 Posttraumatic Stress Disorder – copied directly from DSMIV-TR

Criterion A. The person has been exposed to a traumatic event in which of the following were present:

- (1) The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
- (2) The person's response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganized or agitated behaviour

Criterion B: The traumatic event is persistently re-experienced in one (or more) of the following ways:

- (1) Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
- (2) Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.
- (3) Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific re-enactment may occur.

(4) Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

(5) Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

Criterion C: Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma

(2) Efforts to avoid activities, places, or people that arouse recollections of the trauma

(3) Inability to recall an important aspect of the trauma

(4) Markedly diminished interest or participation in significant activities

(5) Feeling of detachment or estrangement from others

(6) Restricted range of affect (e.g., unable to have loving feelings)

(7) Sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

Criterion D: Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) Difficulty falling or staying asleep

(2) Irritability or outbursts of anger

(3) Difficulty concentrating

(4) Hypervigilance

(5) Exaggerated startle response

Criterion E: Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

Criterion F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if: Acute: if duration of symptoms is less than 3 months / Chronic: if duration of symptoms is 3 months or more

Specify if: With Delayed Onset: if onset of symptoms is at least 6 months after the stressor

Copied from page 467-8 DSMIV–TR (APA 2000)

To summarise the above, the person will have experienced an event as described in 'criterion A'. They will also have symptoms for a duration greater than 1 month for the condition to be considered as PTSD as opposed to an acute stress reaction, and these symptoms will include a selection from all three areas of criterion B, C, and D as mentioned earlier.

Whilst diagnosis of PTSD can be complex, there are even more difficulties with the PTSD diagnosis when it comes to serious crime and anxiety type disorders; inter-rater reliability of practitioners is thought to be poor. One review, for example, involving forensic cases found the Kappa values to be between 0.12 and 0.38, when comparing agreements on these diagnosis (Nielsen, Olav, Elliott & Large 2010).¹

There is variation in the tools used to assess PTSD and this study has centred on the Clinician Administered PTSD Scale as its focal point for the narrative interviews as used in similar studies, such as the one by Spitzer who reviewed 53 forensic inpatients (Spitzer et al. 2001). The tool has been used in over 200 studies incorporating a scoring method which provides some comparison between patients, but also provides opportunity for judgement and clinical interpretation and has become one of the most commonly used tools for diagnosing and measuring the severity of PTSD (Weathers, Frank, Keane, Terence & Davidson, Jonathan 2001). However this extensive review of a unique South Australian forensic population goes further and attempts to corroborate this evidence with more detailed tools, such as the Composite International Diagnostic Interview, the PTSD Checklist, and the Impact of Event Scale. All used worldwide in PTSD research. This thesis also draws upon other major studies in areas such as violence, prison health, and mental health. It considers dynamic aspects of a person's life such as their demographics, their lifestyle and their childhood experiences. A list of tools can be found in section 4.4.

2.3 PTSD Prevalence and Types of Traumatic Events

All patients in the study were asked to review a list of traumas and indicate whether they had experienced or witnessed any of them. Then to prioritise which trauma was the most significant for them, followed by their secondary and third worst trauma. The kind of responses found in the general population can be seen by using a regularly cited American study which had around 8000 initial participants, where there was found to be an estimated lifetime prevalence of PTSD in the general population of around 7.8 % (Kessler et al. 1995). This was much higher in females than males 11.3% and 6% respectively. The main type of

¹ The Kappa score is a measure of inter-observer ratings, using a calculation of actual and probable ratings to provide a balanced measure of inter-observer ratings (Viera & Garrett 2005).

trauma cited in the Kessler study was witnessing someone being badly injured or killed (35.6% men and 14.5% women). Whilst both genders in the American study had expressed to have experienced physical attacks, combat experience, and threats with a weapon, held captive or kidnapped, women reported higher rates for rape, sexual molestation, and abuse or neglect items and were twice as likely to have the outcome of lifetime PTSD from exposure to such trauma (ibid).

European and Australian research has reported a lower lifetime and 12 month incidence of PTSD with rates as low as 1.2 males – 2.7% women (Stein et al. 1997); more clearly delineated in relation to a diagnosis in the last 12 months the American Vs. Australian population survey is significantly different at a ratio of 3.9 vs. 1.3 (Creamer, Burgess & McFarlane 2001). People who have a history of trauma, particularly multiple traumas in childhood are likely to have symptoms of depression and poor life outcomes (Tanskanen et al. 2004). Furthermore, people with PTSD and who have a mental illness may be more likely to be involved in or be victims of violence and to suffer increased likelihood of subsequent PTSD from future exposures to stressors (Breslau et al. 1999; Breslau & Peterson 2010; McFarlane, A et al. 2006).

Most patients in the Forensic population at James Nash House reported at least two traumatic events, and this ranged from 2 to 16 events. The sample mean of reported events was 8 across the sample: the average of reported events for males in this sample being 8 events and for females 6 events. Thirty three percent (33%) (n=13) of patients reported that they had suffered from an event of a sexual assault and twenty six percent (26%) (n=10) reported being exposed to some form of unwanted sexual experience. Some patients reported how they were beaten as children and one patient claimed he had been treated like an animal, giving the example of being made to sleep in a dog kennel and made to eat dog food. The same patient would report after each aggressive incident or self-harm event that he would go into a rage and all he could think about was how he was abused by his uncle and could not help but act out (usually punching a wall and breaking the bones in his hand). This behaviour was common in at least 3 patients who had expressed that they had been abused by a relative; that is they would lose control and punch a wall in order to alleviate their aggression, injuring themselves and frequently ending up with a hospital admission.

Such challenging behaviour may be used to ward off memories of previous traumas, using physical pain and cutting to avoid thinking, remembering, or feelings of shame. Self-harm of this nature forces practitioners into immediate intervention regardless of the institutions approach about psychological intervention (N.I.C.E 2004). Acts of self-harm are thought to be a way of dealing with past traumas, and sexual abuse, but unfortunately they sometimes lead to what is referred to as self-inflicted deaths (SIDs), and such deaths have an even higher likelihood when there is a history of mental illness and incarceration (Borrill et al. 2005).

2.4 Mental Health and PTSD

Patients with mental health issues often experience aggression from others, or are involved in aggressive events. In a survey of 130 patients 87.7% had suffered victimisation of aggression or violence and 32% had current PTSD (McFarlane, A et al. 2006). In prison this is even worse where male prisoners with a mental illness are 1.6 times more likely to be assaulted and it is 1.7 times more likely for female prisoners (Blitz, Wolff & Shi 2008). One patient of this study had his jaw broken by a fellow inmate whilst on remand; another had been sexually assaulted whilst in prison. Although one expects it might be violent in prison settings, it is also likely that many patients will be involved in violent events within an inpatient setting. In a comparative study of veterans in a psychiatric inpatient setting and patients of other diagnosis, it was noted that those with a diagnosis of PTSD were more violent than those without PTSD and that the violence correlated to the severity of PTSD (McFall et al. 1999).

Whether a patient is a witness or participant of aggression, the likelihood is that they are going to be traumatised by the event (Benson et al. 2003). These assaults and symptoms can often be associated with attributes of being mad or bad, or personality disordered. Such stigmatising views result in the patient's suffering not being fully considered, particularly those who are the perpetrators of violence (Rosengren 2004). In some cases those with a severe psychosis who are violent are cleverly excluded out of the system by issuing a diagnosis of personality disorder in order to get rid of them (Travin & Protter 1982). In some states and countries, a sole diagnosis of personality disorder would place patients outside the realm of treatability, both in law and clinically. There are many unfortunate opportunities of experiencing 'Criterion A' traumas in the mental health system and some consumer / 'support groups' even refer to themselves as 'survivors of mental health', more so since the development of the consumer / survivor movement following de-institutionalisation (Tomes 2006).

Many advocates express that they have been admitted into the mental health system and have experienced traumas within it; examples include interventions such as seclusion, restraint, electroconvulsive therapy, being injected against their will, severe side effects to medication, and being treated in a disempowering way. One of the most famous research projects that explored the treatment of mental health patients is the 'Rosenhan Experiment' which involved 8 patients who were university students. It resulted in healthy psychology students being admitted to 12 different hospitals expressing very few symptoms (hearing voices saying empty, hollow or thud) and the article cites many areas of disempowerment, suggesting that staff who work in such environments grow insensitive to the impact of the experience (Rosenhan 1973).

2.5 PTSD and Forensic Mental Health

Worldwide there has been a progression toward moving patients from institutional style care to community care resulting in many patients living with poor social networks and support (Forrester-Jones et al. 2012). Most large psychiatric hospitals have been downsized or even closed and this has led to limited access to mental health beds for some who require acute care. Unfortunately this leads to patients falling through the cracks in the mental health system, and when it does go wrong, it can go catastrophically wrong. Forty four percent (44%) (n=17) of cases actually stated during this research that they actively sought help prior to their offence. Seventy four percent (74%) (n=29) of the patients in this study reported that they had prior contact with a GP, and sixty four percent (64%) (n=25) with mental health services, but did not get the help they needed and ended up in prison or committed such a serious crime that they were admitted to the forensic unit due to reasons of insanity (mental impairment) or being unfit to plead. Fifty six percent (56%) (n=22) had been involved with a mental health team in the 12 months leading up to their offence. There are many reasons, however, why patients may fall through the gap, regardless of the best efforts of treating teams. Patients go missing, miss appointments, or refuse to answer the door when teams arrive. Sometimes relatives neglect to report their symptoms or don't ask for help, attempting to cope within their family unit.

Figure 3 Contact with Services 12 months prior to admission

Previous Contact with Services	N=	%
General Practitioner	29	74%
Psychiatrist	25	64%
Psychologist	10	26%
Social Worker or welfare worker	18	46%
Drug and alcohol counsellor	8	21%
Other counsellor	1	3%
Nurse	20	51%
Mental Health Team	22	56%

A lack of provision of inpatient mental health services leads to an increase in, those who cannot cope in a community care setting, ending up in correctional custody (Salize, Schanda & Dressing 2008). Additionally a lack of supervision places people in the community at risk. Forensic mental health services also provide treatment for currently incarcerated prisoners, whereby they are admitted to the forensic unit for a period of acute treatment, then are discharged back to the prison setting. Some of the patients in this study were from a prison setting, the majority being on remand, whilst others were in the process of being assessed for a mental impairment defence. It has been reported that there are higher rates of PTSD in prisoners than in the general population, and they are more likely to have had an 'antecedent event' such as a physical attack or childhood abuse (Gibson et

al. 1999). Rates between 41% and 68% have been reported by male inmates and may be a factor in both criminal behaviour and the ongoing cycle of violence (ibid).

2.6 PTSD and Prison Health

PTSD is sometimes used as an insanity defence, but this only comprises around 0.3% of cases and is rarely used as the sole defense (Appelbaum et al. 1993). It is estimated that 1 in 7 prisoners have a serious psychotic illness and that PTSD rates range between 4% and 22% of the prison population (Goff et al. 2007). There are around 9 million people imprisoned around the world and in a systematic review of 62 surveys involving 23000 prisoners across 12 countries the following information was drawn (Fazel & Danesh 2002):

- Mean age 29 years
- 81% (n=18500) male
- 26% (n=9776) violent offenders
- 3.7% males with psychotic illness (females 4%)
- 10% major depression (females 12%)
- 65% personality disorder (females 42%)
- 47% antisocial personality disorder (females 21%)

The major implication of the review is that there are several million people throughout the world with a serious mental illness in prison. In an analysis on reception of Australian Prisoners (n=916) the 12 month prevalence of any psychiatric disorder was as high as 80% in comparison to a community sample (n=8168) which only had a comparative prevalence of 31% (Butler et al. 2006).

2.7 Homicide

The rate of murder in Australia is slightly above that of the UK and is around double that of Japan (Kraya & Pillai 2001). There were 260 homicides in Australia in 2010, which has gradually reduced over the years from a high of 385 in 1999 (AIC 2012). It is suggested that when patients with a mental illness kill, it is more likely to be a member of their own family or close acquaintance (Kraya & Pillai 2001). The Australian Institute of Criminology provides statistics on homicides each year with reports generated from the National Homicide Monitoring Programme, which was established in 1989 to track homicide trends in Australia and includes data about victims, the perpetrator, and the context of the murder (Carcach & Grabosky 1998).

The statistics on Homicide for South Australia were recently published by South Australian Police for the first time. There were 26 crimes that were specifically charged with Murder, whilst 37 of these homicides were 'Murder Related Offences'. This means that 37 people were killed but the reasons for those murders could be through road traffic accidents or other incidents causing death. In the Criminal Law Consolidation Act (1935) of South Australia Homicide can include; murder; conspiring or soliciting to commit murder; causing death by an intentional act of violence, manslaughter, and criminal liability in relation to suicide. Fourteen (14) of these cases of the 63 offences were 'driving causing death', and 28 cases were 'attempted murder', so the 63 deaths listed as homicide below is broken down further in the annual police reports for each state. The following data is provided by the South Australian Police Website, which provides annual reports and interstate links to crime statistics – SAPOL:

http://www.police.sa.gov.au/sapol/about_us/statistics.jsp

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Figure 4 Crime Statistics South Australian Police (SAPOL)

In Australia over a seven year period there were a total of 2226 homicide incidents were recorded (1 July 1989 until 30 June 1996), involving 2415 victims and 2652 perpetrators or suspects (Carcach & Grabosky 1998). It is posited that the likelihood of PTSD occurring in someone who commits homicide is linked to personality type and the type of violence committed. An inhibited type of personality who commits a reactive, rather than an instrumental type of offence, is more likely to suffer symptoms of PTSD (Pollock 1999). Instrumental type behaviour is when it relates to a specific motive, such as for money, or to achieve a planned objective. Then there is affective (emotional or reactive) type behaviour which is linked to rage, anger, jealousy, or even fear. A mental health defence would indicate that the patient has some emotional disturbance at the time of the offence, or their behaviour was automatic, or beyond their level of control.

Where a patient kills a relative, there is often the act of 'overkill', this is where the perpetrator causes multiple injuries and may also use excessive unnecessary force (Dutton & Kerry 1999). In this PhD study a group of 39 patients, 13 (33%) had committed homicide and 13 attempted homicide, whilst the remaining 13 were

considered dangerous types of behaviour. It is merely a quirk of the sample that they evenly divided into 13, and it was not by design. In all cases, as part of the Clinician Administered PTSD Scale (CAPS), they were asked to describe what happened, and then to discuss their experience in relation to the 17 PTSD symptoms described in the DSMIV-TR, against the questions listed in the CAPS. All interviews were audio recorded to assist the interviewer in reflecting on each case and to support the written notes recorded as part of the CAPS tool.

It is difficult to discuss the cases in detail as the confidentiality aspects of each individual must be maintained. The author will attempt to provide enough detail to provide the reader with an understanding of the cohort, types of crime and the relationship with their mental illness. In the cases of homicide the group can be divided into three key themes of killing children, killing strangers, and killing family members or friends. Although the cases of killing children were also family members, they have been separated as a group as they pose unique phenomena and motives.

The CAPS allows the patient to reflect on their experience in a narrative form and Meichenbaum (1994) has distinguished three typical aspects of the way patients tell their stories and the way they describe or remember the event they have experienced and how this may affect the course of PTSD:

- **Unforeseeable** – they did not know that this would happen (as opposed to planned) – posing the doubt of whether it could have been prevented or foreseen.
 - Frequently patients stated in this study that they had no idea such an event would occur and it was a matter of circumstances and chance that came together. This reflects how such violent events are so unpredictable and that risk assessment is unlikely to prevent them.

- **Uncontrollable** – the actions were beyond their control – posing the doubt of ‘could something differently have been done?’ In these interviews patients referred to delusions, and hallucinations that interfered with their perception and self-control. Here are some comments from patient’s interviewed:
 - “I was asking someone what to do and they told me what to do (voices) Then it was like somebody else had taken over from me” (audio recording DW-A0352 3:00)
 - “I was like a robot ... I didn’t realise what I was doing at the time: afterwards whilst I was in the remand centre I realised what I had done” (audio recording DW-A21 6:00)

- **Culpability** – whether the person is to blame for the event – posing the doubt of responsibility for the event. A number of patients could only remember partial aspects of their offence. They also stated that they only know what they have

done because they have read the police reports or that they have been charged with murder. However, they still view their offence with disbelief that they have committed the act. One patient stated the following (audio recording DW-A0353 3:00 & DW-A0354 11:00)

- “It’s like I did it, but I didn’t do it – it’s hard to explain”
- “I am numb about it because I don’t have much recall of the whole event. I know that I did it, but in a way my body is in denial, my mind is in denial that it sort of didn’t happen – its only when I have those flashbacks I just think if only it didn’t happen”
- Interviewer: How do you know it did happen? ‘Because I’ve been charged with murder and I remember being in the police station when they said that she’d died’.

Categories adapted from (Meichenbaum 1994)

Most patients had been found not guilty by reasons of insanity. Insanity being a legal term, and is based on the 19th century M’Naghten Rule sometimes called the ‘right or wrong’ test (often spelt differently e.g. M’Naughton). In 1843 Daniel M’Naghten killed Edward Drummond believing him to be the Prime Minister Robert Peel and was found ‘not guilty’ as he was ‘not sensible’. This was reviewed in the House of Lords by 15 English judges who stated he was not guilty if he was;

“labouring under such a defect of reason from disease of the mind, as not to know the nature and quality of the act that he was doing; or if he did know it, that he did not know he was doing what was wrong” (Coleman & Davidson 1978).

In the early days the court outcome had fatal consequences, the difference in opinion could have meant the person being hanged or not (Goldstein & Rotter 1988). Today, it decides whether a person may be held in a prison, cared for in a hospital, or is closely monitored in the community. There have been some cases of homicide in South Australia where the perpetrator has killed someone, yet was not incarcerated due to being found ‘not guilty’ through a mental impairment defense. As part of the Criminal Law Consolidation Act South Australia, a Supreme Court judge then decides on how to dispose the sentence from the provision of a life sentence, through to ongoing supervision in the community (D.O.J 1935).

In a case of murder the crown has the onus to prove ‘actus rea’ (the physical act of murder and whether this was performed voluntary or involuntary) and ‘mens rea’ (the fault element, whether the person had intent to murder). There are many complications in cases around the world, each with their own nuances such as automatism or ‘manslaughter with diminished responsibility’ (Samuels, O’Driscoll & Allnutt 2007). There are basically 2 legal outcomes which lead to an insanity defence:

Not guilty by reason of insanity (or diminished responsibility): The defendant was unable to appreciate the nature or quality or the wrongfulness of his acts (suffering an abnormality of mind as substantially impairing his responsibility).

Unfit to Plead: The accused is unable to understand the charge or possible penalties, or unable to understand court proceedings, or unable to give instructions to a lawyer.

(Large et al. 2008)

Homicide has been linked to many phenomena, but some are clearer than others such as poor socio-economic factors and being male. One author reports that an increase in inpatient psychiatric beds, and better mental health service provision may result in a reduction in the rates of homicide (Segal 2011).

2.8 Memory, Murder and PTSD

One aspect of homicide and other violent crimes that appear to affect the individual the most are the memories of the event. The perpetrator inevitably becomes a witness to the act and records this via all five senses, but they will also be cognitively processing the information at the time of the act, and after the event. Memories are thought to be processed by two specific cellular pathways in the lateral amygdala. One pathway is through the reception of stimuli via various receptors such as those through the nociceptive (noxious stimuli receptors such as pain) based in the spino-thalamic tract (Johnson, L et al. 2012). The first process is to ensure an autonomic pathway and quick response to danger using our instincts, and the second a more considered response to the stimuli that allows context to be added to the memory such as whether the danger is easily avoided, or can be managed safely. The lateral nuclei of the amygdala are thought to be the gateway for the stimuli for all the five senses (Shiromani, Keane & LeDoux 2009). An example stimulus might be putting your hand on a hot iron, the instinctive response preventing damage through an almost instantaneous involuntary response. You then have time to think about your actions and consequences and this may affect how the memory is encoded, stored and reinforced.

The evolutionary function of survival in the first type of memory has another link. The more emotive the memory, the more powerful it is i.e. the greater the fear and pain induced during the traumatic event, the more important that we remember the stimuli for future avoidance (Rubin DC, Berntsen D & MK. 2008; Schweizer & Dalgleish 2011). However, it is suggested that during a traumatic event where the emotions are too powerful the memory may be unsystematically encoded, resulting in fear responses to information different from the original fear inducing stimuli, such as loud noises (Hayes et al. 2011) Neural circuitries supported by neural chemicals ignite the Pavlovian fear response, which follow a pathway of acquisition, consolidation, and extinction (Johnson, L et al. 2012). If the memory is too powerful, it may never be extinguished. Treatment of such strong memories is dependent on the plasticity of the brain circuitry that record it, and this plasticity is altered through known chemical pathways between the pre- and post-synaptic neurochemicals. It is known that by re-visiting these memories and the stimuli then the memory can be relearned in a new adaptive pattern known as the reconsolidation process (Shiromani, Keane & LeDoux 2009).

The second type of memory is the cognitive processing of experience and the involvement of the higher brain centres such as the medial cortices, the prefrontal cortex and other brain structures such as the hippocampus (Hayes et al. 2011). Their involvement in trauma memory is debated by many parts of the mental health industry and a variety of treatment modalities have been developed. Psychotherapeutic methods of re-visiting memories have been used such as Eye Movement Desensitization and Reprocessing (EMDR), and Mindfulness Based

Cognitive Therapy to revisit painful or shocking stimuli. The eye movement is used to reduce the focus and the subjective impact of the actual memory by taxing the limited resources of working memory, thus reducing the vividness of the mental images (van den Hout et al. 2011). EMDR has been successfully used in treating patients who have committed homicide, by allowing the perpetrator to revisit the event and review the stimuli; helping them to deal with the anxiety that ensues (Pollock 2000).

Cognitive theories discuss the idea of how memories are stored and processed. Indicating that people will have altered beliefs about the world, and information processing methods that cause the fear will be perpetuated. Treatments are focused on revisiting such memories altering those beliefs (Rosen & Frueh 2010). One questionnaire that was used in this study was to see how a patient's view of the world is affected by their trauma. It has been posited that the experience of trauma may shatter our views of the world, and result in a negative outlook toward others and the world around us (Janoff-Bulman, Ronnie 1992). Other views and treatments consider emotional processing, learning theory, psychological development, social factors and biological responses.

In many cases studied here patients had varying degrees of responses to the traumatic event they were involved in. Whilst they remembered some snapshots of the event with vivid detail, many parts of the event were lost partially, and for some the majority of the event could not be remembered at all. Not unlike in the movie 'Gothika' (Kassovitz 2003) where the protagonist, a forensic clinical psychologist, has only brief images and memories of the homicide she is accused of perpetrating. The only reason some patients in this study knew they had perpetrated the act of homicide or attempted homicide was because they had read the reports from the police, the courts or the coroner. As discussed above, the heightened emotional experience during the encoding of the memory during an event such as murder are sometimes called 'red outs' and have been reported in many forensic cases (Woodworth et al. 2009). Whilst this is a form of dissociation from the event, in some forensic cases the amnesia is found to be malingering and symptom embellishment in order to prevent incrimination (Hall & Hall 2006). One of the original 48 patients approached about the research had their interviews discontinued, as not only did he have no memory of the event, he didn't believe anything had happened at all, even though his offence was attempted murder involving a number of victims and weapons. It was thought by the author that the patient did not want to admit anything as he may incriminate himself and had not yet had his day in court. It was difficult to proceed with the patient as a participant as he reported no traumas, plus he would laugh mockingly stating that he had not done any crime.

A female patient had no memory of stabbing her partner multiple times, so would imagine herself doing it to try and recover her memory. For many patients, the memory appeared lost and they were simply horrified at the idea that they had

perpetrated the act of harming someone. Other patients reported only fleeting memories, and with a bit of effort they could remember more, but they stated that they would rather not. A number of patients had bad dreams about the event, whilst some had no dreams about it at all. On occasions the perpetrators would use their dreams to try and change what happened in the event, or talk to their victims. Two patients reported that they gained comfort from seeing the victim in their dream as they were still alive and they could talk to them; in each case both victims were immediate relatives to the perpetrator. The partial loss or even total loss of memory for the event has implications for treatment. The patient may not be able to resolve issues around their offence behaviour if they cannot remember, or disbelieve what they have done. As has been reported in many PTSD cases, unresolved memories and conflicts may re-emerge at any time resulting in possible risk issues and heightened anxiety. Therefore efforts should be made to provide treatment before release or before a reduction in supervision.

Notes:

CHAPTER 3

HOMICIDE AND THEMES OF HURTING OTHERS

3. Homicide and Themes of Hurting Others

The inspiration of this study is partially from a book by Rachel McNair (MacNair 2002) who writes about perpetrator induced trauma. This chapter looks at the types of crime, modes of weapon used, and methods of harm by the patients in this cohort, linking the data from the study to these areas. The reader should be aware that some details are graphic and can be upsetting for some, particularly the section on killing children. Forty percent (40%) of the overall cohort used knives in their offences and this is the most common form of weapon used in homicides in Australia. Stabbing offences therefore are reviewed as a theme that recurred throughout the interviews with patients.

We know that witnesses and family members are frequently traumatised by violent events or witnessing homicide, but should the perpetrator's perspective even be considered? As Rachel McNair stated in her book 'Perpetration-Induced Traumatic Stress: The psychological consequences of killing', many perpetrators of killing are often not on the wrong side of the law (MacNair 2002). Soldiers, doctors, police, and executioners are often involved in killing as part of their societally approved roles. Examples are a soldier killing within war; a doctor killing a patient during surgery or treatment; a policeman using a taser (an electroshock weapon) causing inadvertent death, or shooting someone directly as a response to lethal force. Most police join the force because they want to help people and when they are suspended from duty for killing someone in the line of duty, their morality and practice are questioned. As a consequence some require long term psychiatric treatment or even commit suicide due to the stress experienced (Danto 1984). Exploring the act of attempted and actual homicide will assist with all those who need treatment. It may also help with profiling future risk issues, playing a part in prevention, and possibly capture of future perpetrators.

As part of the development of this research, the question of whether a perpetrator of homicide should be considered to have experienced a traumatic event was postulated. Pollock (1999) considers the argument of whether homicide should be classed as a 'Type A criterion' when diagnosing PTSD and states:

"The essential question when considering the possible reasons for a homicide perpetrator experiencing PTSD is how may killing another person be considered a traumatizing event? With reference to criterion A, the offender does experience, witness and confront an event which involves actual death of another by fact. The offender's response to this event may represent a more critical point. He or she may experience horror in response to his or her own behaviour, particularly if the violence displayed constitutes a rare, sudden, surprising, single episode attack of limited duration"

adapted from (Pollock 1999) page 188

The author has frequently been quizzed on the benefits of knowing if a perpetrator suffers from PTSD symptoms. In the main it increases our knowledge about the human experience, but more importantly it allows us to provide rehabilitation as part of our treatment for offenders with the aim of improving the management of risk and crime.

Releasing offenders untreated into the community may result in further offending (Talevska & Stefanovski 2011). It became evident during this research that many individuals are suffering as a consequence of their crime; at least 33% were rated to have current PTSD symptoms with a further 10% with sub-syndromal symptoms. Most of the patients in the research have been found 'Not Guilty' by reason of insanity, which is society's judgement that they are not culpable and therefore should be treated with compassion and help, with the aim of ameliorating their condition and improving their chances of reintegration. Around 25% of patients in a general mental health population are likely to have been involved in violence within 20 weeks of discharge, so community preparation for forensic patients is even more important. Pre-discharge treatment around their offence issues is crucial because although the frequency of violence may be more rare the consequences can be catastrophic (Doyle et al. 2011).

3.1 Filicide – Killing Children

In the group of 39 patients, 3 (8%) had killed their own children, 2 women and 1 male. Infanticide refers to murder of a child under 12 months old, and filicide is the murder of a child by a parent. These are very tragic cases indeed and in some cases they lead to the death of multiple children at once, and often include the death of the perpetrator. In the UK report 'Five-Year Report of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (n= 1579) there were 59 cases in which the victim was under the age of one years old and 25 (42%) of the perpetrators were females. Where women did commit homicide, in many cases it was more likely to be their own child (Appleby et al. 2001).

The killing of children can be divided into two areas, killing out of neglect, and killing through a predetermined plan which can often be with just the use of hands, that is without the use of a weapon (Rouge´-Maillart et al. 2005). At least two of the perpetrators in this study had such strong delusions that they believed their children were possessed and had to be killed. Such beliefs are sometimes called the 'antichrist' delusion, believing that the victim or themselves are Satan and violent behaviour is often associated with this particular form of delusion, resulting in suicide or the death of others (Reeves & Liberto 2006). This has been portrayed in many movies such as the Omen movie series, whereby the parent has strong and elaborate beliefs that the child is somehow the devil and that they must be killed. Another term that has been used is 'Catathymic Infanticide' which refers to symptoms where the person has fixed ideation about killing, which

becomes stronger and almost obsessional and can only be alleviated by the act (Meloy 2010).

In one of the cases studied, the parent believed that her baby was making demonic statements to her and laughing at her. She believed that by killing her baby, Jesus would save the baby and bring it back to life. The mother described in detail how she killed her baby. The mother was shocked when her child did not spring back to life. The mother was having a psychotic episode at the time of the event, hallucinating by hearing voices, and seeing images. Soon after the homicide, she was admitted to hospital. Mental health professionals find it difficult to talk about filicide with patients, as they may find it difficult to empathise with the patient or they are too horrified at the idea that someone can carry out such specific acts, especially when they know some of the detail such as described above (Stanton & Simpson 2006). In most cases, the people who have a mental illness will have to go through a traumatic process of interviews, being locked in cells, and long periods of isolation. This individual had a second child and partner, and would also be separated from all avenues of support; a terrifying process in itself. Stigma or uncaring attitudes from carers or family is the last thing they need.

Historically in Roman law the father had absolute authority over the lives of his children, and where the child was thought deformed or weak, they would be killed. This was outlawed by Emperor Constantine in 374 AD (West, Friedman & Resnick 2009). Even the bible makes reference to killing children (Genesis 22:21-24), where Abraham was ready to cut the throat of his only son Isaac. A Danish retrospective study 1973-2007 identified that children who have a parent with mental illness are at greater risk of filicide: The absolute risk being 0.003% as opposed to 0.051% if one of the parents had a history of admission for mental illness. In the Danish study 88% of child homicides were filicide (Laursen et al. 2010).

With another participant of this cohort, the patient was male and had been treated for mild psychotic symptoms, but believed that he no longer required medication; a lack of compliance with medication is often the case in episodes of schizophrenia, which is considered a lifelong illness. The male patient had such a strong belief that his son was possessed by the devil that he believed he had to end his son's life. He had an elaborate plan and took him away from the family in order to act out this plan. This patient was reluctant to talk about his offence but the case and evidence were published in detail in the media, allowing the interviewer to match the symptoms against the reported evidence in the case. The patient was willing to talk about his story to the author in the hope that it may help someone else in similar circumstances, but he found it too difficult to discuss the details. One of the cases involved a parent who wanted to kill herself and her baby, by using the exhaust fumes of their car. As with many cases, the perpetrator and victim were discovered by her partner. The baby unfortunately did not survive the event, and

only by chance the mother was rescued. The mother then had to live with the tragedy of being a survivor of such an event. Most acts of homicide-suicides happen in the family environment. The act of homicide and suicide of the parent is referred to as a 'dyadic death' whereby the perpetrator kills themselves within one week of the homicide (D'Argenio, Catania & Marchetti 2013).

3.2 Killing Strangers

In the group of 39 patients, 7 (18%) had killed strangers. This is uncommon in homicide as most victims are usually known to the perpetrator, and there is often a financial or emotional incentive to kill, such as revenge. Most homicides involve a family member or partner. It has been suggested that 'Criminal Homicide is probably the most personalised crime in our society the relationship the victim bears to the offender plays a role in explaining the reasons for such flagrant violation' (Mousoz & Rushforth 2003). Other common aspects of homicide are proximity, as in living close to the perpetrator, being male, and being between 18 and 35 (Appleby et al. 2001). The profile of this part of the cohort being studied involves the killing of a stranger, that is, the meeting of perpetrator and victim is down to chance and randomness. These types of cases are often more frightening to the public as there is no logic or rationale and leaves a sense that it could happen to anyone. Such is the case of Christopher Clunis who killed Jonathan Zito in a random killing in the streets of London in the UK, the public uproar of this case changing government policy about monitoring people who have a mental illness in the community (Musker 1998).

In this study, five of the patients had an incidental meeting with their homicide victim, for example they were staying in the same residence as them, or came across them in the street by chance. An example is a 50 year old male patient who was extremely paranoid. He had previously lived on the streets and had learnt to protect himself and property with a knife on the hostile nights that he stayed outdoors in his life as a vagrant. At the hostel where he moved to and lived with 30 other people, it was noisy and he became even more paranoid. A neighbour came in to see him on a regular basis, but he believed at the time that this person had come to harm him. Being readily armed with his knife he stabbed his visitor, who died from the wound. This patient continues to have strong paranoid delusions, which are controlled using antipsychotic medication.

A similar example is where a patient was staying in an average hotel when the owner asked him not to smoke, the patient turned on him stabbing him to death, inflicting the victim with over 40 wounds. Patients report that they feel detached from the whole event as if they are watching themselves do it, and afterward feel in a daze, or are in shock about what has happened. In many of the cases interviewed, the circumstances and symptoms of illness come together resulting in a horrific event. One philosophical perspective of whether someone is mad or bad argues the point of intuitionism, which espouses that regardless of the

circumstance we should know the difference between good or bad. It is also argued however, that in cases like the ones described here, it could be considered just a case of rotten luck, being in the wrong place at the wrong time for the perpetrator as well as the victim (Noguera 2000).

We often see media articles highlighting 'mad axe murderers' or other references to the people who have a mental illness, and when a significant murder occurs like that of Jonathon Zito mentioned earlier by a patient suffering from long term Schizophrenia, the political and media arena become very reactive (Parish 2008). Christopher Clunis, a newly released psychiatric patient in the UK killed a young married man by stabbing him through the eye with a large kitchen knife whilst the victim was on his way to work: A completely random act (Anderson 2003). This promotes further stigmatising media suggesting that the people who have a mental illness should not be allowed in the community and a belief is inculcated in the public that suggests every person with a mental illness is at risk of killing strangers at random. In a 12 month study on how the media reports homicide there were 557 perpetrators during that period and 40% of these were reported in the press (Kalucy et al. 2011).

A retrospective analysis suggests that someone with a mental illness is no more likely to kill than a sane person and that in 32 years only 3% of homicides related to someone with a mental illness (Taylor & Gunn 1999). The debate goes on however, whether there is a greater risk of homicide by someone with a mental illness and many risk tools such as the HCR-20 have symptoms of psychosis as a significant clinical risk factor (Nanayakkara, O'Driscoll & Allnutt 2012). Violence is more likely when the psychosis is comorbid with substance abuse (ibid). The Five-Year Report of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness was organised following a series of homicides by people with a mental illness in the UK. It found that in 1579 homicides over the 5 year period of which 535 cases had a life time contact with mental health services, one third of the total sample, but only 164 (15%) had symptoms at the time of the offence (Appleby et al. 2001).

In a more unusual case the patient came across his victim in a purchasing transaction, but it was no ordinary transaction in that the patient was so paranoid that he wanted to purchase a gun in order to protect himself, believing a motorcycle gang or 'bikies' were out to get him. When he was testing the gun, the victim said that he would get another gun to demonstrate the accuracy of the firearm. However this caused the patient's paranoia to turn toward the victim believing that he was going to get the second gun to come and kill him and that the whole thing was indeed a setup. The patient who was already an expert shot, having spent time in the military, quickly disposed of the vendor by shooting him in the head as he returned with the second rifle.

Another case involved a completely random stranger going about his business. The patient believed this man had been following him for many days and the patient thought he recognised him, thinking that he had seen his face many times around the city. The victim was unwittingly tending his garden at the time. The patient was extremely paranoid and had been unwell for days. He went up to his victim and struck him a number of times on the head with the hammer, killing him. The perpetrator reports that he has strong visual images of the event, seeing the victims head split open, and recalling the smell and sounds of the event. In two cases, the perpetrators were not people who have a mental illness at the time of the offence, but were so unwell by the time it came to their trial, that they were found unfit to plead. That means that they would be unfit to understand the proceedings of the court and would be unlikely to have enough understanding to enter a plea of either guilty or not guilty.

The first case the patient allegedly involved in the killing of two people with a shotgun, but has no memory of the event and he believes he has been framed. Although the police had indelible and irrefutable evidence in the case, he irrationally continues to claim his innocence. The second case the patient drove through a red light at such speed that he not only killed an innocent victim, but also had severe injuries to his own body to the point where he had significant brain damage. Again he has very little memory of the event. Patients have expressed varying degrees of remorse or guilt, but most are able to rationalise that they were ill at the time of the offence. For some, however, this has not assuaged their feelings of guilt.

3.3 Killing a family member or friend

In the group of 39 patients, 3 (8%) had killed a close relative or friend. Killing a family member is known as 'familicide' and there are cases whereby multiple members of the family are killed and these are sometimes referred to as 'family annihilators' as they attempt to kill the whole family and often themselves (Liem & Koenraadt 2008). One patient in this cohort killed her mother.

The patient had a history of schizophrenia and had talked about her thoughts of killing just prior to the homicide. The patient had heard voices telling her that her mother was going to steal her organs and those of her children, and wanted to take them to hell or give them to evil spirits. These are sometimes referred to as bizarre and encapsulated delusions. The patient had a very good relationship with her mother and on the day of the homicide, the mother had come around to provide some assistance to the family, without warning the patient turned on her assaulting her with a weapon multiple times until she was dead. The patient explained how she cared for her mother very much and had a good relationship with her; however the voices she heard were so disturbing and horrifying that she took action to protect herself and her children.

Two of the patients had been spending time with friends when they had a psychotic experience. The first was a young man in his early twenties and had been taking drugs with his friend. However the patient was also experiencing a first episode psychosis at the time and states that his friend was asking him to kill him. He states that his friend was kneeling down and praying for him to kill him. The two of them had a strong friendship, and under the influence of drugs and psychosis, he stabbed his friend to death. At the time of the homicide the patient's mother returned home to discover what had happened, when he also attempted to kill her, stabbing her but she survived.

The second patient was a young female but had been in hospital for a psychotic episode and was in hospital alongside her newly found friend. They had both been released together and were staying in a hostel. They went into the park one day and were lying in the grass, when the patient was hallucinating and saw an evil face superimposed on her friends. In order to save her friend from the devil, she strangled her to death. The patient reported only scant memories of the event. Many patients during their initial phase of admission would appear actively psychotic, expressing incongruous laughter and be clearly hallucinating. Some patients would drift off into a world of their own, or appeared to be reliving the events, as in the re-experiencing aspect of PTSD.

3.4 Attempted Homicide

In the group of 39 patients, 13 (33%) had committed attempted homicide, that is they intended to kill their victims at the time of the offence. Two female patients (aged in their 50's) for example, stabbed their partners in the neck using a knife with the intention of killing them. They had expressed that they perceived that they were being abused and felt they were in danger.

One of these patients had a history of falsely accusing her neighbours of sexually abusing her children, and had very vivid delusions and images in her mind of how her children were being physically and sexually abused. Although as a reader you may think that this may well have been true, in this case the patient's psychosis was clearly playing a major role in her thinking. Even after moving house, other people would then be incorporated into these delusions, such as neighbours who had little to do with the patient. Nonetheless the patient's experience of this trauma was real and she acted out in order to protect her child based upon her psychotic beliefs.

Another patient was in an agitated depression, to the point where she became so fearful and angry toward her partner that she attempted to kill him. Both patients had a previous history of mental illness, and this appeared to be just another episode they were going through. Many of the following cases were also caused by delusional thinking and led to the victims being stabbed, often with multiple stab wounds. 9 of the 13 attempted homicide cases involved stabbing, and in one case

the patient was in prison and stabbed the victim, a fellow prisoner, in the neck with a pen in order to kill him, believing his victim to be a paedophile.

More specific delusions about a family member or neighbour can lead to homicide or attempted homicide. One patient believed his mother and partner (stepfather) were trying to turn him gay. Even many years after attempting to kill his mother by stabbing her multiple times, he still has homicidal thoughts toward her. The patient continues to express that he believes his mother was trying to turn him into a homosexual, and in order to manage these feelings prior to offence he explained that he used to go to the pub just to cause fights. He enjoyed the excitement of the violence, and this would be a regular activity of his, to walk up to a stranger and start a fight. Delusions of a persecutory nature are considered to be a high risk factor in relation to dangerousness and with paranoid cases the violence can be well planned in keeping with such delusions (Scott & Resnick 2006).

In a similar type of delusion a patient was at a party and he believed a person attending the party was in some way acting strangely toward him. He followed this person outside of the party and killed him. The patient had odd delusions around people being raped and kidnapped, and expressed these during one of the interviews. For example, that he had witnessed a woman being kidnapped by a group of strangers, and talked about a complex conspiracy of which his victim had some involvement. Another patient believed that his neighbours were clones or doppelgangers, and he believed that it was his mission to kill them. He went up to their front door with a large knife and when the victims answered the door, he attacked them. The victims survived and had mainly defensive wounds, requiring major surgery.

There were four cases that did not involve stabbing. The first of these patients tried to kill someone with his car, running over his victim, and then reversing back over him. Another patient shot his intellectually disabled son in the head believing he could look after him no longer due to his age. In his depression his belief was that his actions could be described as a mercy killing. The son survived. One male patient attacked a complete stranger, almost killing her, beating her to the point whereby she was unrecognisable when found. He admits he was attempting to kill her. He believed the world was being run by magical people and that this person was one of the head magicians, and that he had to strip her naked and kill her. He now recognises that he was ill when he committed the offence and following treatment, appreciates how bizarre his thinking was.

In many cases it is only fortune that spared the victim, as in most of these 13 cases, the perpetrators were trying to kill their victim. Any use of a weapon has the potential of causing death. The last of the 13 patients was suffering from a paranoid psychosis when his mental health workers called at his home to give him his regular injection. The patient was homicidal and paranoid about his mental health workers; he opened the door of his home and set upon them. The incident

involved knocking the first victim unconscious with an iron bar, and striking the second, who managed to run off. The first worker was nearly killed but survived the event, but this left the whole team in trauma. They are reluctant to care for this patient who has now returned to the community.

3.5 Stabbing

As stabbing has occurred in 14 of the cases, and is the most common form of homicide or attempted homicide, we will look at some of the cases in more detail. Using a knife to stab someone would indicate the intent to seriously harm or kill them. Forty percent (40%) of the cases in the cohort involved the use of knives or other type of weapon to stab their victim such as a screwdriver or pen. In two of these cases knives were only used to threaten the victims. In most of the examples there is a clear situation of charged emotion, especially when a partner or family member is involved. Stabbing or use of a weapon to injure someone would be an intense experience. Intense enough to register in the emotional memory, and it could be presumed that it would be similar to the intensity experienced in a disaster.

Heightened emotion is known to affect memory, resulting in a more permanent and detailed recording in the brain. The memory is charged so to speak. It is hypothesised in this thesis that such events, whether you are the perpetrator or the victim, the unusualness of the event is outside that of our normal schema of experience. The horror, terror and heightened emotions experienced or witnessed during such stabbing events are likely to affect the memory of the event. As described earlier in the case of Macbeth and his wife, the visual aspects of homicide, particularly when the perpetrator witnesses massive losses of blood from their victim, and sometimes incurring multiple stab wounds, must leave an emotional stain on the mind.

3.6 Grievance, Disputes, & Robbery

In 3 of the cases where stabbing was involved the person had a grievance with their victim or was trying to rob them. Another 2 cases, the patients used knives to threaten or rob, but did not use them. One patient whose whole family has a history of psychosis was in an argument with his friend's dad. When the friend's dad punched his brother, he pulled out a screwdriver and stabbed the father in the back several times. Although he was not charged with attempted murder, it is only by luck that the victim did not die.

Another patient had a delusion about the owner of a large business and believed that this business owner owed him lots of money. He confronted the business owner who had no idea why he was being approached or why he would owe this person money. The patient then became so angry with the business owners response that he assaulted him with a knife. Most of these cases are examples of

a lethal weapon being used to harm others that could have easily resulted in death.

3.7 Other Offences

There were 13 cases that were neither homicide nor attempted homicide but many of them involved the assault or threat toward others resulting in some aspect of dangerousness; the more unusual of these offences involved stalking, hostage taking, armed robbery and arson. Not all patients were found to have a mental illness, as some patients were from the prison or from the remand centre for assessment.

One such patient had committed computer fraud and attempted to rob a bank. This patient was found not to have a mental illness and was returned to the prison, but spent enough time in the custody of our service to participate in the study. Many of the patients in this group had many types of trauma that were not necessarily related to their crime or arrest. All patients in the study were asked to identify difficult or uncomfortable experiences from the past, and many in the study had multiple traumatic experiences. Some examples will be discussed from this group.

One patient had witnessed his girlfriend being hit by a car and the body was then dragged some way down the road, killing her. According to him, he had spent many days trying to prevent her from committing suicide by pulling her away from the traffic, until he was overwhelmed by her attempts and could not prevent her any further. He was present when she was finally successful in committing the act. The patient explained that he felt responsible, and his clan had also said that he was responsible for not taking care of her. The patient had a number of admissions during the period of study and on his most recent said that he was beaten with bats from his people because he had not taken care of his partner. He had lost teeth and had scars on his face from this event.

Some patients still had unresolved traumas from their childhood, from personal physical, psychological, or sexual abuse. One such patient had a severe facial disfigurement from birth, and he was terrorised at school and beaten regularly by his class mates. He was terrified to go to school because of the chiding he would receive and when he told his mother she had also beaten him and he was still suffering great anxiety from these events today. In a similar case, a young patient of 25 said that his uncle had regularly sexually abused him and kept him chained in a kennel, would make him eat dog food, and hit him regularly with a bat. As an adult in our care, he would regularly fly into a rage in situations, punching the wall breaking the bones in his hands. This was his way of coping with the rage he experienced and related it back to the extreme physical and sexual abuse traumas he experienced as a child.

One patient said that she had never experienced any kind of trauma and had no bad experiences that she could think of. In other words she'd had a life without any major stress. Her offence was stalking of a person who she initially knew as an acquaintance. The victim had another partner, but this patient could not let the imagined relationship go, believing that the victim was in love with her. She would hang around the victim's house, peering through windows and generally disturb them on a regular basis in their family home. The patient was very gentle and meek, but caused distress to her victims who were extremely understanding about the case. No matter what they tried they could not get her to change her behaviour no matter how many times she was told that the victim did not want a relationship with her. This type of stalking is known as Erotomania, which is a rare disorder whereby the person is deluded that someone is in love with them – usually the victim is famous like the singer Madonna who was stalked by a man who wanted to kill her because she did not want to be with him. One of the unusual aspects about this patient was that she was able to hold down a normal job prior to her offence.

CHAPTER 4

STUDY DESIGN AND METHODS

4. Study Design and Methods

Ethical approval was a significant aspect of this research due to the status of the patients being incarcerated and vulnerable mental health patients. The nuances of these circumstances are described and reviewed. The unit has a slow turnover and choosing patients was not straight forward, how patients were selected, the consent process and support mechanisms are described. There were many tools used in this research and each one is described in detail, with a brief description of how they are used, their cut-off scores or scoring methods, and comparative scoring is provided. Each tool is listed in alphabetical order. The demographics of the cohort such as age, gender, level of education, and others are listed here. The interview process was lengthy and complex, and there were many issues along the way. The author shares some insights around the interview process and the difficulties of completing research with forensic patients in a maximum security facility. The method of data collection and data storage is also described.

4.1 Ethics Approval

A copy of the research proposal is included in appendix A, and a copy of the ethics approvals in Appendix F.

The author provided a detailed research proposal to the ethics committee at the Royal Adelaide Hospital, which was the appointed ethics committee for health and mental health services for metro based hospitals. As part of the ethics approval, a consent form was submitted – see appendix C. The ethics committee expressed some concerns about the fact that the patients were not only incarcerated against their will, but would also in many cases have difficulty understanding the consent process and the contents of the research due to their psychosis. Through negotiation with the committee and additional reassurances provided, consent was given. This included an additional update to the original proposal.

One of those reassurances was that a forensic psychologist was available to support any problems perceived following the research. The forensic psychologist was part of the multidisciplinary team, and was present at the weekly review meetings and would be involved in discussion of whether the patient was suitable and ready to be involved in the research. The forensic psychologist agreed to provide supervision and support for any patients who might deteriorate during or after the research period. The author had a close working relationship with all of the multidisciplinary team and would meet the team to discuss each patient's weekly progress. There were occasions when patients were determined to be too unwell to participate, particularly in the early stages of their care.

A feedback questionnaire was incorporated into the follow up, which asked the patients whether they found the research helpful or anxiety provoking. Here are some of the additional questions asked by the ethics committee following the initial submission:

- *It should be assured that all participants have an adequate reading age.*
- *The Information Sheet should have a separate RISKS section, which lists the risks. These should include possible deteriorations in mental state, etc.*
- *There are many questionnaires / tests. The information sheet should state how long participation in this study will require.*
- *Given this large number of questionnaires / tests, please provide comment on whether all are needed and whether each has adequate validity and reliability.*
- *Will there be a debriefing interview at the conclusion of someone's participation? Please comment on this.*

The consent process was not straight forward as not only did we have patients, but we also had prisoners who were under the governance of the Department for Correctional Services (DCS) South Australia. The author therefore required approval from the DCS ethics committee. The frequency of this committee sitting was limited, and took approximately 12 months from application through to approval. An interview with this ethics committee was also required, with around 12 panellists. Permission was granted to proceed from this committee.

Acknowledgement that this was a vulnerable group can be seen in the way the consent form is designed. The patient's consultant psychiatrist and primary nurse were approached prior to asking the patient if they wanted to be involved. Three signatures were therefore sought prior to any involvement including the primary nurse, the consultant psychiatrist and the patient themselves.

4.2 Participant Selection

Patients were selected from a group admitted over a 3.5 year period (42 months) between the period 1st January 2007 to 5th August 2010. A number of criteria had to be satisfied as described in the research proposal:

- The patient had to be able to read and write (reading level age 12)
- The patient's care team had to be consulted
- The Consultant Psychiatrist had to provide individual permission
- The patients' primary nurse had to agree that they could be interviewed
- The patient had to have been admitted for 1 month
- A rapport established with the patient
- The patient would remain within the facility for at least 2 months

- The patient was already an inpatient prior to these dates
- The patient would have a 2 week period of further inpatient support
- Be either a Prisoner, Remandee, or Forensic patient.

The pragmatics of selection added additional complications because of the doubt around length of stay. It was difficult to assess whether a patient would remain in the hospital for a number of months as this was determined by the courts, or by bed pressures within the service. Additionally, patients were often not well enough for the first few months of their admission and their offence was too raw to be discussed in any detail (this decision was made by the care team). As you can imagine having committed a serious homicide or attempted homicide with weapons resulted in painful trauma. A number of patients did not want to discuss their offences at all, and some stated it was too soon for them. Some were merely paranoid about the research, which was the nature of their illness.

4.3 Recruitment and Consent

The author would attend ward meetings, care team meetings, and have discussions with the patient's consultant as to whether they would be suitable for participating in the research project. The author also visited the wards on a daily basis, meeting with patients on an ad hoc or conversational basis, developing a relationship with them and making a generalised assessment of their wellness. When the patient was thought to be of a level of wellness, and would be remaining within the service for a number of months, then the care team, consultant and primary nurse were approached for consent. The patient was then approached in a preliminary interview to ask them if they would participate. A verbal explanation and a written information sheet were given to the patient, and they were asked to provide written consent to participate. The nurse and consultant were also asked for written consent on a prepared consent form. The interview process would then occur.

4.4 Instruments Used and Discussion

The instruments selected were based on those tools used in a large study involving the victims of a major bushfire in South Australia, and hence was a comparative local population (Galletly, Van Hooff & McFarlane 2011). Some additional tools were used from another local mental health study that looked at victimisation of people who have a mental illness and PTSD within a local mental health unit (McFarlane, A et al. 2006). Authors from these papers provided advice and access to the tools. The results of the tools are discussed in relation to the study data under in the next chapter entitled '[Analysis of offence and PTSD Data](#)' and '[Corroborating Tools and Data Analysis](#)' chapter 5 and 6 respectively. This section will provide an overview of each research tool in alphabetical order and describe how it is utilised, with cut-off scores and other useful information. See the list of 23 tools on the next page. To find out more about a specific tool, you will

find it in alphabetical order, starting with the 1- Aggression Questionnaire and ending with 23 - The World Assumptive Scale. Go to the next section on demographics 4.5 if you are familiar with the tools listed.

Here is a list of the 23 tools, followed by an explanation of how each of the tools are used in research:

1. Aggression Questionnaire (Buss & Perry 1992)
2. AUDIT: Alcohol Use Disorders Identification Test (World Health Organisation)
3. Biographical Data
4. Brief Psychiatric Rating Scale BPRS - 18 (Overall & Gorham 1962)
5. Centre for Epidemiological Studies Depression Scale (CES-D) (Radloff 1977)
6. Childhood Trauma and Household Experience Questionnaire
7. Composite International Diagnostic Interview – CIDI
8. Clinician Administered PTSD Scale CAPS
9. Dynamic Appraisal of Situational Aggression (DASA) (Ogloff & Daffern 2006)
10. Family beliefs – Measure of Parenting Style (MOPS)
11. Feedback Questionnaire (patient’s experience of the research)
12. Global Assessment of Functioning (GAF)
13. Impact of Events Scale – Revised IES-R (Weiss & Marmar 1997)
14. The Impact of Event Scale - Revised
15. MINI (suicidality) (Sheehan et al. 1998)
16. Past Feelings of Aggression - Acts of Violence (Plutchik & van Praag 1990)
17. PTSD Checklist (Civilian Version) PCL-C (Weathers et al. 1993)
18. Recent Life Events – adapted 21 item version (Brugha et al. 1985)
19. Risk Assessment – Adelaide Metro Mental Health Version – paper based.
20. SF-12 Health Survey (Ware, Kosinski & Keller 1996)
21. Somatic and Psychological Health Report SPHERE-34 (Hickie et al. 2001)
22. TDQ- Traumatic Dissociation Questionnaire (Murray, Ehlers & Mayou 2002)
23. The World Assumptive Scale (WAS) (Janoff-Bulman, Ronnie 1989)

Aggression Questionnaire (Buss & Perry 1992)

This questionnaire is made up of a four factor analysis of aggression, and consists of 29 questions using a 5 point Likert scale from ‘extremely uncharacteristic of me’ to ‘extremely characteristic of me’. The four areas considered are: Physical Aggression (9 items), Verbal Aggression (5 items), Anger (7 items) and Hostility (8 items). Anger is thought to be the bridge which links the other 3 elements, and whilst men score higher for verbal aggression, hostility and physical aggression than women, there was no sex difference for anger (Buss & Perry 1992). This questionnaire has been used in numerous research studies, and one study on the general population found an average total score of 57.19 (SD 14.89) with a response range of 47.00-66.00. (Gerevich, Bacskai & Czobor 2007).

This is a revised version of the earlier Buss-Durkee Hostility Inventory (BDHI) (Buss & Durkee 1957), which originally used seven factors and included assault indirect aggression verbal aggression, irritability, negativism, resentment, and suspicion and had 52 items. The Buss - Durkee questionnaire although widely

used in research was found to have redundant factors, and used a categorical format of true or false which supposedly sacrificed data (Bernstein, IH & Gesn 1997). Buss and Perry saw the need to combine some of the elements as these were developed a priori and without factor analysis. For example resentment and suspicion combine to form the one factor of hostility. Other items were dropped as they were considered ambiguous or troublesome (Buss & Perry 1992). Aggression is reported to be a stable personality trait and early detection can predict future antisocial behaviours. The factors in the Buss and Perry's Aggression Questionnaire have been further analysed and found to be consistent (Harris 1995). The remaining factors Physical and Verbal aggression are considered as the instrumental aspects of aggression reflecting harming or hurting someone; anger is the body preparing for the act of aggression; and hostility is the expression of ill will and feelings of injustice (Felsten & Hill 1999).

The questionnaire is divided into four factors, but these are mixed when used, and 2 of the scores have to be reversed as these are positive statements, for example 'I can think of no good reason for ever hitting a person' and 'I am an even tempered person'. The mean scores and standard deviations for each item as cited by Buss and Perry's study of 18 to 20 year old college students (n=1253) and these normative scores are as follows:

Scale	Physical	Verbal	Anger	Hostility	Total score
Men (n=612)	24.3	15.2	17	21.3	77.8
SD	7.7	3.9	5.6	5.5	16.5
Women (n=641)	17.9	13.5	16.7	20.2	68.2
SD	6.6	3.9	5.8	6.3	17

Figure 5 Buss Perry Aggression Questionnaire – comparison scores

The anger and hostility scales and have been shown to predict anger in response to perceived mistreatment (Felsten & Hill 1999). The male mean score was 77.8 for the total score, and 68.2 for women.

AUDIT: Alcohol Use Disorders Identification Test (World Health Organisation)

A World Health Organisation transcultural screening tool to assess excessive alcohol intake / abuse / dependence as indicated by the DSMIV-TR. It was developed from a 150 item assessment, across six countries in a collaborative project involving a sample of 1888 people attending primary care centres. Whilst other tools have been used to identify alcoholism, Audit was developed to identify problem drinking, allowing time for intervention and prevention (Saunders et al. 1993).

The definition of excess alcohol is described as alcohol intake > thirty (30) grams pure ethanol per day for men and > twenty (20) grams of pure ethanol per day for

women. When tested on 1207 patients it fared better than other similar questionnaires (for example the Michigan Alcohol Screening Test or MAST and CAGE – named after the acronym of the four questions) and at a score of \geq thirteen (13) had a sensitivity 70.1%, specificity 95.2% for men and sensitivity 94.7%, specificity 98.2% for women. A score of \geq seven (7) is considered to be hazardous drinking (Gache et al. 2005). The cut off score is considered to be different for men and women. This is a 10 item questionnaire, and each item can score from 0 to 4, allowing for a maximum score of 40.

In an analytic review of **cut off scores**, a **score of 8** was found to be sensitive to those with hazardous drinking habits and a **cut off score of 12** to identify alcohol social related disorders and physical disorders. The higher the score used reduces sensitivity but increases specificity in diagnosis of positive alcohol related problems (Conigrave, Hall & Saunders 1995). This questionnaire only takes a few minutes to administer and has been reported to have specificity as high as 94% for detecting those with hazardous alcohol problems, and can also be used as a predictive risk tool in relation to alcohol disorders and related problems (Conigrave, Saunders & Reznik 1995).

Biographical Data

The biographical component of the Composite International Diagnostic Interview (CIDI) was utilised and the 'Impact of Childhood Stress on Adult Health' questionnaire developed by McFarlane et al in the study on families following a natural disaster was also used to consolidate this biographical data (McFarlane, A. 1987).

Brief Psychiatric Rating Scale BPRS - 18 (Overall & Gorham 1962)

The Brief Psychiatric Rating Scale (BPRS) was developed over 50 years ago to create a rapid assessment of mental health symptoms. There are 18 questions (as opposed to the original 16 and there is also a 24 item expanded version available) that focus on independent symptom areas with a seven point response scale from 'not present' to 'extremely severe' and are based on observation of the patient's physical, intellectual, social behaviour, but can be used a self-report measure. The scores can be weighted for various disorders (Overall & Gorham 1962). The two additional items of excitement and disorientation were added in 1966 (Crippa et al. 2002). The inter-rater reliability of this tool was difficult to test as it requires 2 interviewers on the same day and across time, but is more accurate with psychiatric patients in acute distress (Hafkenscheid 1993). The BPRS is based on the following five factors; Thinking Disorder, Withdrawal, Anxiety–Depression, Hostility–Suspicion, and Activity, and these factors are reported as being clear and robust. Prototypical profiles studies of clustered groups have allowed for the provision of score tendencies and patterns of such groups, for example homeless

people with severe mental illness were examined for the 3 profile areas of agitated, depressed and psychotic (Burger et al. 2000; Burger et al. 2005).

The cut off scores for the BPRS is not always clear in the academic literature despite its widespread use. Leucht et al. (2005) did some work on comparing these scores to the Clinical Global Impression rating and came up with the following results:

- BPRS total score of 31 equates to 'mildly ill'
- **BPRS total score of 41 equates to 'moderately ill'**
- BPRS total score of 51 equates to 'markedly ill'

Adapted from (Leucht et al. 2005).

The tool is most useful when looking for health improvement and the initial score is used as a baseline, and compared to future scores with percentage improvements and this is referred to as the Reliable Change method in research (Hafkenscheid 2000). The traditional method of using the Brief Psychiatric Rating Scale (BPRS) is to have a 20-30 minute non structured interview and some versions provide a list of anchor points to aid interpretation of scores and have some guidelines for questions (such as Bech's version) (Crippa et al. 2001). The primary nurse was asked to complete the BPRS as they were best placed to observe patients and utilisation of this tool by nurses has been reported as having a high validity and it is not uncommon in the United States for nurses to be involved in rating psychopathology of this nature (McGorry, Goodwin & Stuart 1988).

Centre for Epidemiological Studies Depression Scale (CES-D) (Radloff 1977)

This is a short self-report scale designed to measure depression in a population sample. The items in the scale have been drawn from other research studies on depression. Its content validity is taken from the correlation of other similar research studies (such as the Beck's Depression Inventory), and it has been found to have a high internal consistency and adequate inter rater reliability. The CES-D has strong psychometric properties is accurate in detecting depression in acute depressives with a 99% sensitivity (Wood, Taylor & Joseph 2010).

It is a 20 item questionnaire with a four point response from 0-3. The scoring is in the format rarely or none of the time (less than 1 day), Some or a little of the time (1-2 days), occasionally or a moderate amount of time (3-4 days), and Most or all of the time (5-7 days). The patient is asked to state 'how often have you felt this way during the past week'? The 20 items give a possible range of 0-60 and four of the questions have the scores reversed such as 'I was happy', which is clearly the opposite of depression. From a sample of a number of major surveys the CES-D was found to have good internal consistency with a coefficient alpha of .90, and the same population was retested some months later and the test retest correlation was between .50 and .70 depending on the intervals of the test and

averaged at around $r=.54$. **There is an arbitrary cut off score of 16 to indicate an issue with depression** (Radloff 1977). As this research tool measures the two factors of happiness and depression on a continuum, it is suggested that it may be used as a measure of happiness as well as depression i.e. A low score on this tool would indicate a positive well-being (Wood, Taylor & Joseph 2010).

The tool has been found to be useful in predicting depression in various multicultural settings (Stahl et al. 2008). In a meta-analysis of the CES-D ($n=22,340$) showed that the factors within the tool were robust and well established similar to that of four other major research tools like the Becks Depression Inventory (BDI), Zung Self Rating Depression Scale (SDS), and the Hamilton Rating Scale for Depression (HRSD) (Shafer 2006).

Childhood Trauma and Household Experience Questionnaire

(53 item version), as adapted by (Felitti et al. 1998) in the ACE in San Diego California – a Health Appraisal Clinic examining adverse childhood experiences, child abuse against household dysfunction and later utilised in the bushfire studies by (Galletly, Van Hooff & McFarlane 2011) “Psychotic symptoms in young adults exposed to childhood trauma—A 20 year follow-up study” and (McFarlane, A. & Van Hooff 2009) “Impact of childhood exposure to a natural disaster on adult mental health: 20-year longitudinal follow-up study”. A series of questionnaires was used called the “The Impact of Childhood Stress on Adult Health” Questionnaire Booklet and the format redesigned for a forensic population.

This was originally developed as a 70 item questionnaire, but later 53 item version was also created. There is also a 28 item short form version. The questionnaire is divided into a 6 areas of childhood maltreatment, i.e. separation and losses, physical neglect, emotional abuse or assault, physical abuse or assault, witnessing violence and sexual abuse or assault. The questionnaire focuses on behavioural events and considers any type of perpetrator such as relatives or friends (Fink et al. 1995). Whilst the incidence of childhood physical and sexual abuse is high in the general population, it has been reported as even higher in forensic populations, and it also suggested that the violence perpetrated by people who end up in prisons could be related to their earlier abuse. An even more extreme example is that in one state in America (Los Angeles) 95% of inmates on death row had suffered some form of abuse as children (Adams 2002). Adults who have suffered from protracted childhood abuse, may have experienced biological changes in response to such abuse such as deficits in the prefrontal cortex (as discovered using Positron Emission Tomography of those that have committed murder), leading to violence in adulthood, or even homicide (Heide & Solomon 2006). We are also cautioned on the motives of the recollection of childhood memories, in the persons current mental state and their ability to recall events accurately, the fact that they are one sided, to consider events that have occurred since the injury, rewards that are obtained because of such recall, and

the reasons for entering such discussions from the therapists perspective (Briere 1995).

Analysis of the CTQ showed four factors physical and emotional abuse, emotional neglect, sexual abuse and physical neglect (some authors have divided the factors into 5, dividing physical and emotional abuse into 2 factors) (Bernstein, DP et al. 2003). The responses are on a 5 point Likert scale from 'never true = 0, sometimes true, often true and very often true =4'. Positive items are reverse coded. Cut off scores can be used to determine levels of abuse. The questionnaire has good inter-rater reliability with interclass correlation of 0.88, and Cronbach's alpha for the four factors ranged from 0.79 to 0.94 (Bernstein, DP et al. 1994).

The ACE version includes questions on illicit drug use and alcohol within the family, and issues around suicide (Felitti et al. 1998). The first 20 questions are dichotomous and require a response yes or no. The more adverse experiences that occur, the more traumatic the childhood is likely to have been. There are 4 questions about spousal abuse (in relation to the female parent), 3 direct questions on physical abuse, 15 questions on emotional abuse, 7 of these requiring the score to be reversed as they make positive statements about the childhood experience such as 'you felt loved'. 5 further questions on physical and emotional abuse and 6 questions on sexual abuse. The questionnaire provides a wide review of the traumatic experiences of childhood. **The adjusted cumulative score (following the reversed scores) provides a reflection of the childhood positive and negative experiences.**

Composite International Diagnostic Interview – CIDI

The Composite International Diagnostic Interview (CIDI) was developed by the World Health Organisation. It is The WMH-CIDI includes a screening module and 40 sections that focus on diagnoses (22 sections), functioning (four sections), and treatment (two sections), risk factors (four sections), socio-demographic correlates (seven sections), and methodological factors (two sections) (Kessler & Ustun 2004). The author was trained to use this tool, both paper version and computerised version, at the Clinical Research Unit for Anxiety and Depression (CRUfAD), Level 4, The O'Brien Centre, St Vincent's Hospital, 394-404 Victoria Street, Darlinghurst NSW 2010, Sydney Australia. See website: <http://www.crufad.org/index.php/treatment-support/treatment-manuals>

The output data then provides a provisional diagnosis on mental health and related disorders in the format of DSM and ICD10 codes, stating whether the criterion was met, partially met, or not met for specific disorders such as post-traumatic stress disorder and panic disorder, but it reviews 40 diagnosis across the DSM and ICD, providing an output measure for both classification manuals.

Key to data analysis of CIDI output reports

Column 1 = diagnosis DSMIV-TR codes

Column 2 – criterion – met or not met **C**; symptoms length at onset **O**; age of onset **AO**; recent experience of symptoms **R** (see timeframes below); and age of remission of symptoms **AR**.

C column Key: 5 = Criterion met fully; 1= not met; 3 = Criterion met partially

TIMEFRAMES (Onset & Recency) – CIDI Manual (WHO 1997)

The time frames of these codes are as follow: **1** = within last two weeks; **2** = two weeks to < one month ago; **3** = one month to < one month ago; **4** = six months to less than one year ago; **5** = in the last 12 months, DK when; **6** = More than one year ago.

Example Schizophrenia, the symptom is present when (criterion) **C=5**, and the age of onset is more than a year ago when (onset) **O=6**, at the age of? (Age of) **AO=?** and symptoms occurred in the last 2 weeks when (recency) **R=1**; at the age of? (Age recency) **AR**.

Clinician Administered PTSD Scale CAPS

The Clinician Administered PTSD Scale (abbreviated to CAPS) was developed to measure core and associated symptoms of PTSD. It is a series of 17 symptom areas with prompted questions that closely match the symptom criterion described in the DSMIV-TR. The CAPS is considered the 'gold standard' for research in PTSD and has been tested against many other tools for validity and inter-rater

reliability. It takes between 30 minutes to an hour to complete (Foa & Tolin 2000). The CAPS was originally produced in 2 formats, one as a diagnostic tool and the other for symptom status. This has since been revised and has been updated since the DSMIV was published in 1994 (Weathers, F., Keane, T. & Davidson, J. 2001). It is scored on frequency (0; 1, once or twice; 2, once or twice per week; 3, several times per week; 4, daily or almost daily), or the percentage of time the symptom is present. The intensity or severity (0-4) of these symptoms to provide a total accumulated score. The CAPS score for each symptom is calculated by adding the Intensity and Severity score – ITSEV for short, which is a maximum of 4+4 for each symptom (Blake et al. 1995). You can calculate an overall score by adding the totals for all 17 symptoms. An accumulated score (of intensity and severity or ITSEV score) of 65 was found to have good sensitivity (.84) and excellent specificity (.95) (ibid.). It measures symptoms over the last month across the three symptom clusters (criterion A to F) described in the DSMIV-TR. It can be used for symptoms over the last week, and for ‘lifetime ptsd’ over the worst month since the trauma (Weathers, F., Keane, T. & Davidson, J. 2001). The tool is only initiated if the person has identified an ‘A’ type criterion for PTSD diagnosis. For a diagnosis of PTSD to be met then each of the 3 cluster symptom areas have to have at least 1 or more symptoms, re-experiencing (intrusive recollections) 1 symptom, avoidance and numbing (avoidance) 3 symptoms, and arousal (hyper-arousal) 2 symptoms. Although some authors make reference to ‘partial PTSD’ or ‘sub-syndromal PTSD’ when all symptom clusters criterion are not met (Blanchard et al. 1995). A rule of 3 was set by the original authors to identify whether a symptom is present or not, that is the ITSEV score must be at least 3. Some researchers will use a higher score of 4 to increase specificity. The CAPS has been widely used in research and has been cited in over 200 studies. When compared to the Structured Clinical Interview DSMIV-TR (SCID) and using a cut-off point (c.o.p) score of 45, it was found to have the following validity coefficients: Validity sensitivity 90%, specificity 95%, and mis-classification rate=7.1% and the CAPS items showed almost perfect internal consistency (Pupo et al. 2011). It is necessary to consider what scoring rule to use either the ‘ITSEV 3’ or ‘ITSEV 4’ rule, additionally which cut-off score e.g. 45 and 65 can be used to identify more specific groups. **A CAPS score of 45 however has been shown to discriminate those suffering with PTSD** from control samples across all symptoms (ibid.). The following cap scores recommended by a review of the CAPS after its first 10 years of use are as follows:

- 0–19=asymptomatic/few symptoms,
- 20–39=mild PTSD/sub threshold,
- **40–59=moderate PTSD/threshold,**
- 60–79=severe PTSD symptomatology,
- >80= extreme PTSD symptomatology.

Adapted from (Weathers, F., Keane, T. & Davidson, J. 2001)

The author was provided with audio and audio-visual sample interviews from other researchers, with guidance and case study examples to work through prior to interviewing patients. There was also supervision provided from 2 psychiatrists who are also the PhD supervisors.

Dynamic Appraisal of Situational Aggression (DASA) (Ogloff & Daffern 2006)

The risk assessment tool known as the Dynamic Appraisal of Situational Aggression is an assessment based on the patient's previous 24 hours of behaviour and notifies the presence or absence of 7 aggressive themes sourced from other tools (such as the HCR-20 and BVC Broset Violence Checklist) and research within forensic units. A trained nurse would make the assessment and provide a score each 24 hours which then provides predictive data for the following 24 hours (Barry-Walsh et al. 2009). The items that are scored using a dichotomous scale as present or not present across the following areas; Irritability, Impulsivity, Unwillingness to follow directions, Sensitivity to perceived provocation, Easily angered when requests denied, Negative attitudes, Verbal threats. Each area provides a score of 1 if present and **a person who has scored 7 compared to someone who has scored 0 is 29 times more likely to be physically aggressive than the person who scored 0** (Ogloff & Daffern 2006). Specific odds for lesser scores are as follows: a score of 6 = 15.7 chance of more likely being aggressive, 5 = 3.17, 4 = 4.48, 3 = 2.79, 2 = 2.69, and 1 = 1.31 (ibid). The predictive validity of this tool is measured against any actual aggression that is displayed and this is recorded on the tool as an ongoing daily measure. The tool has been tested across various forensic settings in the UK, New Zealand, and Australia, and is useful in predicting both physical aggression toward others, and acts of self-harm (Daffern & Howells 2007). Most patients in this cohort of 39 scored very low scores as they had moved out of the acute phase of care; in fact most patients scored 0. Only 12 patients had a score of 1 or higher (11 of these being male). 4 patients had scores of 3 or higher (all male). The purpose of this tool was not to identify whether a person is 'dangerous' or not and the authors steer readers away from this concept preferring instead of higher scores indicating higher probabilities of aggression (Barry-Walsh & Daffern 2010). The author attended a training session by Michael Daffern and Trish Martin at a conference workshop prior to utilising the tool and was given permission to use the tool within the Forensic Service South Australia.

Family beliefs – Measure of Parenting Style (MOPS)

Based on Parental Bonding Instrument PBI (Parker et al. 1997)

The Parental Bonding Instrument PBI was developed to measure the two factors of perceived level of care and protection during childhood as it is thought that these perceptions are likely to influence development. This simple tool has been used to review how patients with various illnesses view their parents. It has been

found to have good re-test reliability with consistency over periods as long as 10 years, however this has been known to be affected by mood disorders and inpatients with Schizophrenia (Parker 1990). There have been references in the literature that suggest parents who are over critical or over controlling can have an effect on psychopathology when the child reaches adulthood. Parents with a profile of high care – high overprotection may encourage a pattern of dependency for example. The Measure of Parenting Style (MOPS) is a refined version of the PBI and is considered as a shortened version of this tool and focuses on three factors ‘Indifference’, ‘Over control’ and ‘Abuse’ items. **A total score of 17 or more on this scale has been related to anxiety disorders, such as obsessional compulsive disorders, social phobias, and panic disorder (Parker et al. 1997).** In this study we use 15 items that are asked about the mother and then the same 15 questions are asked about their father. The differences in the father / mother scores demonstrate differences in the relationships with the mother and father and whether they were indifferent, over-controlling or abusive. One patient in the study for example attempted to murder his mother, and still had strong feelings of doing so. He scored 31 out of a total of a possible 45 toward his mother and only 7 against his father. The scores can be broken down into the following factors.

Indifferent Items (6 items):

Ignored me; Uncaring of me; Rejecting of me; Left me on my own a lot; Would forget about me; Was uninterested in me.

Over Control Items (4 items):

Overprotective of me; Over-controlling of me; Sought to make me feel guilty; Critical of me;

Abusive items (5 items):

Verbally abusive of me; Unpredictable towards me; Physically violent or abusive of me; Made me feel in danger; and Made me feel unsafe.

Each item is given a response of ‘not true = 0’, ‘slightly true = 1’, ‘moderately true =2’ and ‘Extremely true’=3, providing a total possible score for each parent of 45, with a joint score of a possible 90. The factors can also be grouped into the items described above to provide feedback on parenting style.

Feedback Questionnaire (patient’s experience of the research)

This questionnaire was developed with the author’s supervisor Alexander McFarlane to provide feedback on how patients experienced participation in this research. It had 5 positively posed items e.g. “I found the process helpful” and 5 negatively posed items e.g. “I found the process distressing”. The negative score was taken from the positive score to provide a measure of the patient’s experience

of participating in the research process. The literature identifies that this is a vulnerable group, but there is no measure of how participation is experienced and it was thought useful to report back on this for future researches and for other applications to ethics committees who may express concerns about the vulnerabilities of this group. Whilst the majority of patients reported a positive experience, the highest possible score being 50 and the lowest possible score being -50. The range of responses was -15 to 40; with the average mean score being 16 and median score 20. As the questionnaire was voluntary 6 patients of 39 did not complete it, 5 reported minus scores and 21 scored a mean score of 16 or above. The remaining seven patients scored between 1 and 16, indicating a mildly positive experience. To summarise, the majority of patients found it a positive experience, whereas 5 patients felt stressed by the process.

Global Assessment of Functioning (GAF)

A prototype of the Global Assessment of Functioning (GAF) was developed in 1962 known as the Health Sickness Rating Scale, and this led to work developing on the GAF in 1970's, with its production in 1987. This was then further split in 1992 and is now used in a single scale or split scale format (Aas 2010). The Global Assessment of Functioning is thought to be one of the most widely used clinical assessment tools to rate psychological, social and occupational functioning (Sernyak, Leslie & Rosenheck 2003). It is one of 3 forms of the tool that make up Axis V in the DSMIV-TR. The tool starts with a score of 1 for the most severe difficulty in functioning, to 100 which translates as superior functioning in every domain. The scale has 10 point increments to represent levels of functioning and each increment has anchored statements such as 'Some danger of hurting self or others or occasionally fails to maintain minimal hygiene or gross impairment in communication'. The assessor would then apply an arbitrary score between 11 and 20 dependent on severity, i.e. the more severe the symptoms, the lower the score. The use of this continuous score from 1 to 100 has been questioned and some believe a categorical score with more detailed anchor points might improve the current scales validity and reliability (Aas 2010). The Global Assessment of Function Scale (DSMIV-TR Axis V) is reported to provide good reliability and was assessed in a highly controlled study, which showed reliability ICCs (intra class correlation coefficient using a one way effects model) with a range 0.86, or Spearman Brown corrections showed 0.92. The convergent and discriminant validity between the assessor and external rater were shown to be good. When factor scores (obtained using an analysis with orthogonal / varimax rotation; factors 1 and 2 were compared for the clinician ratings (scores 0.58 and 0.60 respectively) and the external rater (scores 0.64 and 0.64 respectively). When the three Axis V tools were compared, it was the Global Assessment of Functioning that showed the closest relationship to a patients' report of psychiatric symptoms (Hilsenroth et al. 2000). Other studies however have reported poor inter-rater reliability and poor discriminant validity in relation to disease severity (Grootenboer

et al. 2012). Nevertheless it is one of the most widely used tools across the world and in some countries it is mandated as part of their minimum data set. In this study the primary nurse who knew the patient well was asked to provide a rating of the patient's current mental health using the GAF. When nurses and other professionals have used this rating scale, it was been found to be useful in determining the level of psychological functioning in a population of long term patients with a mental illness (Jones et al. 1995). Many of the patients in this forensic facility would be considered well enough to be discharged back to prison when they reach a score of around 60 or above, and a score below 30 is usually within the acute phase of psychosis or depression. The tool is most useful to measure a change in psychological functioning over time, preferably by the same rater.

Impact of Events Scale – Revised IES-R (Weiss & Marmar 1997)

The original impact of event scale was minimised to a 15 item questionnaire. It was developed to identify the amount of intrusive thoughts and avoidance behaviour for any type of stressful life event. Following a study of a group of 66 people to an outpatient clinic of people who had experienced a serious life event, similar themes appeared across the group, resulting in the development of the scale (Horowitz, Wilner & Alvarez 1979). The tool was created prior to the entrance of the PTSD in the DSMIII and does not measure the hyper-arousal aspect of PTSD. A study that reviewed 20 years use of the tool and analysed 66 papers discussing reliability and convergent validity found that the Impact of Events Scale is stable across the two factor structure described and has convergent validity with observer diagnosed PTSD. The revised tool focuses on Avoidance, Intrusion, and Hyper-arousal symptoms over the last 7 days and in this study the patient is asked to focus solely on their offence or arrest, identifying if they are still having current symptoms in relation to their offence. The arrest process is also included because this can be a highly stressful experience, as many patients will have come into contact with the 'Star Force', the armed response unit in South Australia, or just facing the courts and prison system is reported to be a terrifying experience. Estimates of the internal consistency of the factor of intrusion was $\alpha = 0.86$ (range 0.72-0.92) and the factor of avoidance 0.82 (range 0.65-0.90) suggesting both subscales are consistent (Sundin & Horowitz 2002). The revision of the tool by Weiss and Marmar was made to align it to the DSMIV-TR and capture the third factor of hyper-arousal (Weiss & Marmar 1997). It has 22 items that are rated on a Likert scale of 0 (not at all) to 4 (extremely). Scale scores across the 3 subscales which include intrusion (8 items), avoidance (8 items) and hyper-arousal (6 items) as follows:

The Impact of Event Scale - Revised

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been

for you DURING THE PAST SEVEN DAYS with respect to your **offence or arrest**, how much were you distressed or bothered by these difficulties?

	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Any reminder brought back feelings about it	0	1	2	3	4
2. I had trouble staying asleep	0	1	2	3	4
3. Other things kept making me think about it	0	1	2	3	4
4. I felt irritable and angry	0	1	2	3	4
5. I avoided letting myself get upset when I thought about it or was reminded of it	0	1	2	3	4
6. I thought about it when I didn't mean to	0	1	2	3	4
7. I felt as if it hadn't happened or wasn't real	0	1	2	3	4
8. I stayed away from reminders about it	0	1	2	3	4
9. Pictures about it popped into my mind	0	1	2	3	4
10. I was jumpy and easily startled	0	1	2	3	4
11. I tried not to think about it	0	1	2	3	4
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them	0	1	2	3	4
13. My feelings about it were kind of numb	0	1	2	3	4
14. I found myself acting or feeling as though I was back at that time	0	1	2	3	4
15. I had trouble falling asleep	0	1	2	3	4
16. I had waves of strong feelings about it	0	1	2	3	4
17. I tried to remove it from my memory	0	1	2	3	4
18. I had trouble concentrating	0	1	2	3	4
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart	0	1	2	3	4
20. I had dreams about it	0	1	2	3	4
21. I felt watchful or on-guard	0	1	2	3	4
22. I tried not to talk about it	0	1	2	3	4

Scoring for the impact of even scale:

Avoidance Subscale = mean of items 5, 7, 8, 11, 12, 13, 17, 22
 Intrusion Subscale = mean of items 1, 2, 3, 6, 9, 14, 16, 20
 Hyper-arousal Subscale = mean of items 4, 10, 15, 18, 19, 21
 Adapted from (Weiss & Marmar 1997)

The tool shows a high degree of inter-correlation (r 's = .52-.87) and high levels of internal consistency with Cronbach's alpha (intrusion =.87-.94; avoidance .84-.87; and hyper-arousal .79-.91). Test Retest reliability across 6 month intervals ranged from .89 to .94 (Beck et al. 2008). **A total cut-off score of 33 has been shown to have good diagnostic sensitivity .91 and specificity .82 for a diagnosis of PTSD (Creamer, Bell & Failla 2003).**

MINI (suicidality) (Sheehan et al. 1998)

The M.I.N.I (Mini International Neuropsychiatric Interview) was developed as a screening tool to identify mental disorders in a population and to report on 17 axis 1 diagnosis. It has been found to be a useful screening tool in prisons where up to 20% of the population are said to have a major mental disorder (Black et al. 2004). This research has only used the 6 questions on suicidality from the MINI to capture any feelings of suicidality and whether suicide attempts have occurred across the lifespan. The MINI is a similar tool to the Composite International Diagnostic Interview (CIDI) described above, but is meant to provide a brief assessment method in a period of around 15 to 30 minutes for trained professionals. The reported average times are 21 minutes for the MINI as opposed to 92 minutes for similar parts of the CIDI (Lecrubier et al. 1997). An example question is 'In the past month did you think that you would be better off dead or wish you were dead'. The answer is dichotomous yes or no. Each answer is allocated a score which defines the relative risk, for example if a patient has made a plan to commit suicide or has attempted suicide then a positive answer for these questions would score a 10, the scores for each question are as follows:

In the past month did you:

1. That that you were better off dead or wish you were dead (yes = 1)
2. Want to harm yourself (yes = 2)
3. Think about suicide (yes = 6)
4. Have a suicide plan (yes = 10)
5. Attempt suicide (yes = 10)

In your lifetime:

6. Did you ever make a suicide attempt (yes = 4)

This provides for a possible total of 33, the greater the score the higher the suicide risk. The authors of the tool provided a key to scoring to give a low, moderate or high risk as follows:

- 1 or 2 or 6 = low risk
- or (2+6) = moderate risk
- or 5 (3+6) = high risk

Adapted from (Sheehan et al. 1998)

The specificity of the MINI was good across is reported as good across all diagnosis (range 0.72 – 0.97). Sensitivity however varied dependent on diagnosis from 0.46 for simple phobias, up to 0.94 for depression (Lecrubier et al. 1997). In this current study only 2 patients had scores above 12 (out of 33), the mean

average score was 4, and 1 patient had the highest score of 23. A large number of patients had scores of zero and 28 patients had scores less than or equal to 4.

Past Feelings of Aggression and Acts of Violence - PFAV (Plutchik & van Praag 1990)

This questionnaire provides a profile of characteristics that are associated with violent behaviour. If the patient answers yes to specific questions they are considered to be defined as violent. For example if the patient answers yes, (i.e. sometimes, often or very often) to both question 6 'Have you ever hit or attacked a member of your family' and 7 'Have you ever hit or attacked someone who is not a member of your family', then they are classified as violent. Similarly if the patient's answers positively to either question 8 'Have you ever used a weapon to try to harm someone' or question 11 'Have you ever been arrested for a violent crime such as armed robbery or assault', then they are considered violent. In a comparison of patients and college students, it was found that a score of 4 or more predicted individuals who are violent with an approximate sensitivity of 75%. **With a cut-off score of 5 seven out of ten patients who were violent were correctly identified, and seven of ten non-violent patients can be correctly identified** (with a sensitivity and specificity of approximately 71%) (Plutchik & van Praag 1990). The questions are scored in different ways, the first 9 questions have a four point Likert response 0 = never, up to 3 = very often, then there are 2 questions with the same scoring but with different responses from 0 = never, to 3 = more than twice. Then the final question is about keeping weapons at home with 0 = no and 1 = yes, allowing a total possible score of 34. **Reviewing the cut-off score of 5 would indicate that 5 positive answers would provide the cut-off for violence**, whereas the total score would indicate a relative history and feelings of violence. In this study the scores ranged from 1 to 31 with a sample mean score of 9. As a risk of violence scale the internal validity is 0.77 showing high correlation of the items in the tool and it has been used to distinguish between violent forensic patients and non-violent mental health patients (Apter et al. 1991). The sensitivity and specificity of the PFAV are high and it has been used in many studies on violence and suicide in both forensic and mental health populations (Grosz et al. 1994).

PTSD Checklist (Civilian Version) PCL-C (Weathers et al. 1993)

The PTSD Checklist is one of the most frequently used tools in the assessment and field of PTSD (with around 265 studies). There are 3 versions The PCL – C, where the stands for Civilian and this assesses stressful life events, PCL – M which assesses military stress, and PCL – S which assesses a specific stressful life event (Wilkins, Lang & Norman 2011). They differ in their wording to relate to the type of event. The PCL – C used in this study is a 17 item checklist which closely aligns to the items described in the DSMIV-TR and asks the patient to assign a response about how much they were bothered by each item over the last

month. The response range from 1 = not at all to 5 = extremely allowing for a response range of 17 – 85. The cut-off scores of 50 were assigned by the original authors as a positive diagnosis for PTSD (Weathers et al. 1993), however this has been tested for sensitivity and specificity by others and has raised some issues about the scoring. **Cut-off scores of around 45 with individual item scores of 3 and 4 (specific to the item)** have been found to provide a more valid, specific and sensitive response. The responses of 392 students gave the following mean scores PCL total = 29.4 (SD 12.9); Re-experiencing 9.2 (SD 4.2); Avoidance 12 (SD 5.7); Hyperarousal 8.2 (4.3) (Ruggiero et al. 2003). The PCL was measured against the Clinician Administered PTSD Scale and correlation was reported as 0.92, and a diagnostic efficiency of 0.90, but individual items showed lower correlations ranging between 0.38 to 0.78 (Blanchard et al. 1996). The PCL is a useful tool for researchers as it is commonly used in this field enabling comparison of data with other studies, and it only takes around 5 to 7 minutes to administer (Wilkins, Lang & Norman 2011).

Recent Life Events – adapted and modified 21 item version (Brugha et al. 1985)

It was noted how the onset of illness closely related to major life events and the social adjustment to these events. This led to the development of the social readjustment rating scale which had 43 events such as marriage or troubles with the boss as items empirically derived from clinical experience (Holmes & Rahe 1967). There was some further work which reviewed the way this questionnaire was completed (by interview or by self-report) and it's relation to the level of distress reported. It was thought that quality information around such events can only be obtained by interview, which anchors the incident in time and allows for further probing (Paykel 1983, 1997). Further development of the questionnaire resulted in a 67 'Life Events Inventory' (Tennant & Andrews 1976). There has been much discussion whether traumatic life events are additive or if the most significant or recent event should be used when researching the stress related to illness (McFarlane, AC 1985; Paykel 1997). A brief version of this questionnaire was used in the bushfire studies in South Australia, which used the work by Brugha et al. (1985) listing 12 items that pose a long term contextual threat and an additional 9 items that related to the contextual experience of the population being studied (Brugha et al. 1985; McFarlane, A. & Van Hooff 2009). The derivation of the initial 12 items was through distinguishing which incidents were highly reported as having derogative effects and which incidents reported only mild effects, in essence highlighting items of higher risk of threat such as the death of a first degree relative or child, as opposed to a less threatening life event from the recent life events list such as marriage (Brugha et al. 1985). The questionnaire used in this study has 21 items, a positive response = 1 and if the event is still affecting the patient then the score = 2, providing a possible total of 42. The patient is asked if they have been bothered by any of the 21 items over the

preceding 12 months, therefore identifying recent or current stressors. The tool can be used to simply indicate the amount of events experienced and the amount of events still affecting the individual. A cumulative score can be used to indicate possible additive stressors.

Risk Assessment – Adelaide Metro Mental Health Version – paper based.

This is a local hospital based risk assessment that looked at only the most obvious elements of risk which included risk to self (as in self-harm or suicidality), risk to others (as in aggression verbal and physical threat), and risk of absconding (risk of running away or to take leave without permission). There were two parts to the tool, the second part related to level of functioning and cooperation with treatment using the following items: Problems with functioning, level of support, response to treatment and attitude to engagement. You can add additional items for specific risks such as vulnerability; this was applied to most female clients within a male dominated predatory environment. The ratio of males to females was around 8-2 across the unit. The scoring method was no risk = 0, low risk =1, moderate risk =2, high risk = 3 and extreme risk = 4. These scores were charted on a daily basis by nursing staff, and the primary nurse of the patient on the day of the assessment was asked to provide scores on the 7 risk items stated earlier. The score for each item provides a risk for that behaviour, and a cumulative score gives an overall view of risk. This is not a validated tool, but was the main tool for measuring risk for the Adelaide Metro Mental Health Service and all mental health services around the State of South Australia. Most patients scored (n=29) scored less than or equal to a score of 7. The mean score for all patients was 6, and 9 patients of the total 39 patients had a score greater than 10, indicating that these were of higher risk of both aggression and harm to self.

SF-12 Health Survey (Ware, Kosinski & Keller 1996)

The SF-12 is a short form of the Medical Outcomes Study – Short Form 36 which is often used to assess psychosocial functioning of trauma survivors and is also used in outcome studies for PTSD (Shiner et al. 2011). The questionnaire has 12 questions across 8 factors (subdomains) as follows:

- General Health (GH1)
- Physical Functioning (PF1 & PF2)
- Role Limitation Physical (RP1 & RP2)
- Bodily Pain (BP1)
- Role Limitation Emotional (RE1 & RE2)
- Vitality (VT1)
- Mental Health (MH1 & MH2)
- Social Functioning (SF1)

(Montazeri et al. 2009)

There are 12 questions, and there are different scoring methods across the questionnaire and each question is preceded by 'over the last four weeks':

1. **General Health Subdomain (GH):** In general would you say your health is: This is 5 point Likert scale marked from 'excellent' = 1 to 'poor' = 5.
(High Score = poor health) (Total possible=5)
2. **Physical Functioning Subdomain (RF):** two questions:
 - a. How does your health now limit you in moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf? Would you say you are limited a lot, a little or not at all?
 - b. How about climbing several flights of stairs? Would you say your health limits you a lot, a little, or not at all?
These use a 3 point Likert scale from 'Limited a lot' = 1; 'Yes limited a little'; and 'not limited at all' = 3.
(High Score = good health) + **Reverse both above scores**
(Total possible=6)
3. **Role Physical Functioning (RP):** two negatively posed questions such as have you accomplished less than you would like with your work: These have a Yes = 5 and No = 1 response.
 - a. **Role functioning:** have you accomplished less than you would like as a result of your physical health?
 - b. **Role functioning:** Were you limited in the kind of work or other activities you could do as a result of your physical health?
(High Score = poor health i.e. yes = accomplished less)
(Total possible=10)

4. **Bodily Pain Subdomain (BP):** Question 8 stands alone and asks about how much did pain interfere with your normal work including both work outside the home and housework? This is a 5 point Likert scale from 'not at all' = 1 to extremely = 5.
(High Score = poor health i.e. extreme pain) - (Total possible=5)

5. **Vitality subdomain (VT):** How much of the time during the past four weeks did you have a lot of energy? This question stands alone and has a 6 point Likert scale from 1 = All of the time to 6 = none of the time.
(High Score = poor health i.e. 6 = none of the time)
(Total possible=6)

6. **Role Emotional Subdomain (RE):** Then there are two questions on emotional problems and activity: These use another simple 'yes' = 5 or 'no' = 1 answer.
 - a. Did you accomplish less than you would like as a result of an emotional problem, such as feeling depressed or anxious?
 - b. Did you have trouble doing work or other activities as carefully as usual as a result of an emotional problem, such as feeling depressed or anxious? (High Score = poor health i.e. accomplished less yes = 5) (Total possible=10)

7. **Mental Health Subdomain (MH):** Then there are two questions on mood and energy levels: These use another 6 point Likert scale from 'All or most of the time' = 1 to 'None of the time' = 6 for the first question and reversed for the second question.
 - c. How much of the time during the past four weeks have you felt calm and peaceful?
(High Score = poor health i.e. 6 = none of the time) -
 - d. How much of the time during the past four weeks have you felt downhearted and blue? (High Score = good health i.e. 6 = none of the time) + Reverse (Total possible=12)

8. **Social Functioning Subdomain (SF):** Then there are two questions on mood and activity levels: These use the same 6 point Likert scale from 'All or most of the time' = 1 to 'None of the time' = 6.
 - e. During the last four weeks, how much of the time has your physical health or emotional problems interfered with your social activities, like visiting with friends, relatives etc.? (High Score = good health i.e. 6 = none of the time) + Reverse (Total possible=6)

Tool adapted from a paper by (Utah-Health-Department 2001)

The scores are computed to provide either a physical and mental composite score (or component summary) PCS and MCS respectively; the score range from 0 to 100 and a low score indicates poor health. For a simple summary score, the total is out of 60, which is produced by adding the scores to each question. It is then necessary to compare mean specific scores to age bands within the general population and variations from these scores allow for comparisons of health.

The SF-12 is able to provide a comparative response to the SF-36 and has shown good correlation in reproduction of physical and mental health component outcome scores of the SF-36 results (0.95 and 0.96 respectively) (Ware, Kosinski & Keller 1996). As the scores are mixed it requires that they are computerised for interpretation using 'Quality Metric Health Outcomes Scoring Software', which applies a norm based scoring algorithm (Montazeri et al. 2009). For this study individual items and domains provide for analysis of each domain and for simple analysis 'good health' scores items will be reversed to provide a cumulative score, which is a poor health score **i.e. the higher the score the poorer the subject's health is**. Responses change across the lifespan, so comparison is made across populations to estimate general health for that age group (Resnick & Parker 2001).

Somatic and Psychological Health Report SPHERE-34 (Hickie et al. 2001)

The Sphere is a 34 item questionnaire that looks at both somatic and psychological symptoms and is derived from the 30 item general health questionnaire (McFarlane, AC et al. 2008). This is a 34 item questionnaire that reports against somatic and negative health symptoms of anxiety, depression and somatic distress using as score of 0 = 'never', 1 = 'some of the time' and 2 = 'Most of the time'. A total score provides a level of wellness. The lower the score the more "well" a person is considered to be. It is a self-report questionnaire and has two subscales mental health (Psych-6) which measures aspects of depression and anxiety and somatic (Psoma-6) which measures fatigue. The internal consistency of the tool is reported as good with a Cronbach's alpha (.89) for the 34 items (Hansell et al. 2012). The SPHERE-34 has been used to as part of a suite of tools to review and predict the utilisation mental health services in an Australian population, and it was noted that items on the psychological symptoms scale of the SPHERE-34 correlated to the use of mental health services in the studied population, psychological distress being the biggest predictor (Mills, V et al. 2012). However the positive results are not supported by some authors as in one study the SPHERE-34 reported 80% of the sample as having the disorder when only 30% of the sample actually had the disorder (David & Dean 2003).

TDQ- TRAUMATIC DISSOCIATION QUESTIONNAIRE (Murray, Ehlers & Mayou 2002)

The Traumatic Dissociation Questionnaire (TDQ) is a 38-item self-report questionnaire devised from a number of other widely used dissociation questionnaires such as the Dissociative Experiences Scale (DES) a 28 item questionnaire which is based on the hypothesis that dissociation will occur on a continuum of few symptoms and at short frequency for normal experiences, but at the other end of the continuum there would be a higher number of experiences and clinical cases are likely to suffer these experiences more frequently (Bernstein, EM & Putnam 1986). The other questionnaires include: Peritraumatic Experiences Scale (Marmar et al. 1994); the Stanford Acute Stress Reaction Questionnaire (Koopman, Classen & Spiegel 1994); and the Perceptual Alteration Scale (Sanders 1986). This was adapted to the 38 item questionnaire that is comprised of seven subscales and a total score: Detachment from others and the world, sense of split self, lability of mood and impulsivity, inattention and memory lapses, emotional numbing, confusion and altered time-sense, amnesia for important life events and total trait dissociation (Murray, Ehlers & Mayou 2002). Internal consistency is high (.93 students n=211, .92 MVA victims, and .94-.96 for assault survivors) and has a test-retest reliability over a 2 month period (.86-students, .82 MVA survivors) (Halligan et al. 2003; Murray 1997; Murray, Ehlers & Mayou 2002). It has been stated that persistent symptoms of dissociation at 4 weeks is a good predictor of PTSD at 6 months. The questionnaire is a 6 point Likert Scale ranging from 0 = never to 5 = always, with a maximum possible of 190. All of the patients interviewed were at least 4 weeks post trauma and some many years post trauma. **The total score will be used to identify the level of dissociation**, and can be compared to the mean score of the group. The total score range in the sample was 2-128 (out of 190), and the amount of symptoms ranged from 2-38 (out of 38).

The World Assumptive Scale (WAS) (Janoff-Bulman, Ronnie 1989)

The WAS suggests that we have developed schemas in the way we think about the world such as the three primary factors self-worth, self-controllability and luck, and these can be divided into 8 sub scales that are reasonably stable, reliability ranging from .48 to .82 (Elklit et al. 2007). These factors include:

- Self-Worth question 8, 18, 28, 31 e.g. 'I often think I am no good at all'
- Luck question 10, 16, 21, 32 e.g. 'I am basically a lucky person'
- Justice question 1, 7, 14, 19 'Misfortune is least likely to strike worthy decent people.'
- Benevolence of People question 2, 4, 12, 26 e.g. 'People are naturally unfriendly and unkind'
- Benevolence of World question 5, 9, 25, 30 e.g. 'The good things that happen in this world far outnumber the bad'

- Self-Control question 13, 17, 23, 27 e.g. 'I usually behave in ways that maximise good results for me'
- Control question 11, 20, 22, 29 e.g. 'People's misfortunes results from mistakes they have made'
- Random question 3, 6, 15, 24 e.g. 'Bad events are distributed to people at random'

It is intuitively thought that following a serious traumatic event our view of the world is permanently changed or even shattered, leading to thoughts of mistrust, doubt, lack of self-worth and a loss of control. It has been suggested that our consciousness may be in such shock that it holds the pre traumatic view of the world and post-traumatic view of the world as two separate consciousness, suppressing the new view or 'active view' of the world, hence the rise of symptoms such as numbing, amnesia and other symptoms which assist in such suppression and assist us to maintain our pre-traumatic view of the world (Ford 2009) page 70-71.

The WAS has 32 items that can be divided into 8 views of the world as described above and uses a 6 point Liker scale from 1 = Strongly Agree to 6 = Strongly Disagree. It has been used in PTSD research to demonstrate that traumatic events change our views of the world and self. The factors were tested in a student population whereby they were tested using various tools and the WAS, and after a period of time the students were questioned using the life events list and anyone of the large group who had experienced a traumatic event as classified in the DSMIV-TR were retested using the same initial tools. It was reported that the WAS did not have good predictive values in that the scores for both the control group and those who had experienced trauma did not vary much. Those scores that did vary swung both positively and negatively against the same items (Kaler et al. 2008). Demonstrating poor specificity and validity, and suggesting that further development of this tool is required and may lead to false assumptions. The tool is useful however from a case study perspective to indicate the views of the world of the patients and if there are common themes within a forensic population following traumatic events.

4.5 Demographics

Aged and Gender

There were 82% (n=32) males and 18% (n=7) females who participated in the study (n=39 completed interviews), and the sex difference reflects the population of the Forensic Mental Health Unit South Australia, which has a population of 40 beds. The average gender mix in the unit is around 15% females to 85% males, and this is reasonably steady throughout the year. The Forensic Mental Health population also mirrors the population of the prisons. There are around 2000 male prisoners in the state of South Australia across 8 prisons, and there are around 100 female prisoners at an approximate difference of 5% females to 95% males. The population of prisons has increased approximately 5% each year over the last 5 years and is heading upwards, with an expectation that we will have at least 2500 prisoners in the state by 2020.

The age range was 19 years to 75 years, with average mean age of 35. Females had a higher median age than males, with a median age for males of 35 and females 41. Although not part of the study, unusually we had two men in the unit of Italian origin who had killed their wives in a similar way and both were aged around 75 years old. Their crimes completely unrelated. They were not eligible for the study due to their inability to speak fluent English and this was one of the exclusion criterion.

Education

Seventy seven percent (77%) (n=30) had left school by the time they were aged 16 years old, and forty one percent (41%) (n=16) of patients left school before the age of 16, with eight percent (8%) (n=3) leaving school under the age of 14 years old. Seventy four percent (74%) of the patients left school without completing year 12, which explains why fifty nine percent (59%) of them had no qualifications, whereas ten percent (10%) (n=4) of patients had obtained a university degree or higher. Thirty one percent (31%) (n=12) patients had difficulties in learning to read and thirty three percent (33%) (n=13) had difficulties in learning to spell.

Income and Employment

Sixty four percent (64%) (n=25) of patients were not employed, forty one percent (41%) (n=16) of the 39 patients had been on a disability pension, indicating that they had probably gained this through prior contact with mental health services. Thirty six percent (36%) (n=14) had full time or part time employment prior to their offence or arrest. Up to seventy four percent (74%) (n=29) had been on an income of less than \$30000 a year household income, although twenty six percent (26%) (10) of these did not know their annual household income. Ten percent (10%) (n=4) reported an income of over \$60000 household income per annum. Seventy seven percent (77%) of the patients had been on some form or

government pension or allowance with only twenty one (21%) reported earning a wage. One patient owned his own company (a successful antique shop) before becoming someone with a severe mental illness and ended up living on the streets for an extensive time, disappearing from his family for over a year. Unfortunately he committed homicide before coming to the attention of mental health services. A staggering high number of homeless people have suffered some form of life altering traumatic event. In one study 100% homeless women, and 69% of men reported trauma histories (Christensen et al. 2005). The people who have a mental illness and with chronic and forensic issues have major difficulties in reconnecting with services and remain an underserved section of the community (Shiple & Tempelmeyer 2012).

Australian Indigenous Peoples

Eighty seven percent (87%) (n=34) patients considered themselves not to be from Aboriginal or Torres Strait Islander communities, and thirteen percent (13%) (n=5) agreed that they were from Aboriginal and Torres Strait Islander Community.

Moving Home & Marriage Status

Eighty two percent (82%) (n=32) had stated that they had moved house at least 5 times in their lifetime, and fifty one percent (51%) (n=20) had moved at least 10 times. Sixty two percent (62%) (n=24) of the patients had never been married and thirteen percent (13%) (n=5) had been married, the remaining twenty six percent (26%) (n=10) were separated, widowed, or divorced.

4.6 Interview Process

Interviews took place on the ward where the patient was based. Each interview was audio recorded and documented using the data collection tools (a laptop was used for the Composite International Diagnostic Interview (CIDI) which provides an output report). There were surprisingly few opportunities throughout the day / week to interview patients, and some prearranged interviews were often changed or cancelled. Examples of this are when the patient would agree to an interview but could not participate for one of the following reasons:

- Not feeling well enough
- Didn't feel like it
- Had a visit from a family or friend
- Being interviewed by another professional
- Participating in Occupational Activities or groups
- Participating in a game, or sports
- Mealtimes such as a barbecue
- Sleeping

The author had to fit around the patient's day, other professional appointments that the patient had (psychologist, social workers, consultant psychiatrists, registrars, occupational therapists, lawyers, and other experts) and also had to work around the normal duties as the Senior Nurse of the Forensic Facility (appointed position Advanced Clinical Services Coordinator).

The data on the length and frequency of interviews was collected and analysed from the audio recordings. All interviews were audio recorded. Each patient was interviewed for an average 4 hours and 37 minutes. A total of 347 interviews taking a total 283 hours (equates to 35 working days) of interviews were recorded over a period of 3 and a half years. Each patient was interviewed an average of 9 times over a period of 28 days (median 26 days), but this had a wide range between 6 days and 75 days. The average interview took 48 minutes (some were less than 10 minutes and the maximum was one and half hours) and this would depend on the patient's mental state and willingness to continue with the interview. Some patients found it difficult to concentrate or just could not cope with the questions, and the interview would have to be terminated and rearranged.

The interview process could be divided up into 3 key areas (questionnaire types):

- Clinician Administered PTSD Scale took on average 1 hour and 25 minutes
- Impact of Childhood Stress on Adult Health booklet took on average 1 hour and 11 minutes (this is a booklet of brief but many questionnaires)
- Composite International Diagnostic Interview (CIDI); Aggression Questionnaire and Past Feelings and Acts of Violence (PFAV) scale took on average 2 hours and 1 minute.
- Total Average Interview Time took 4 hours and 37 minutes

Some patients were considered high risk, unwell and had a history of using weapons. For example, one patient claimed he had stabbed a fellow inmate through the neck with a weapon. He was psychotic at the time of the interviews with strong delusions of paranoia, and the interviewer had provided a pen and pencil to the interviewee as part of the interview process. Careful assessment of risk had to be taken prior to each interview, and patients were assessed using the local risk tool, completed by the primary nurse. All interviews were done in an interview room and the interviewer was alone with each patient.

Another key feature of risk was suicidal ideation, or acts of self-harm, and a careful judgement had to be made of whether the interview would increase this risk. For example one of the female patients had thoughts of killing herself because she had killed her child. Asking her to discuss the act of killing her child and the thoughts and feelings around this would obviously affect these suicidal thoughts, and this would result in interviews being cancelled until the patient was ready. This was usually achieved by some tentative discussion and negotiation with the individual patient, her primary nurse and her psychologist about readiness to be

interviewed. It is thought that people with a diagnosis of PTSD are 6 times more likely to attempt suicide (Harned et al. 2010).

4.7 Data Collection Method

There were two key methods of recording data. The first method was using prepared questionnaire booklets and the data would be entered by the interviewer. The patient was supplied with a copy of the questionnaire so that they could follow the questions as they were being asked. The second method of recording data was through audio recording all interviews. These were stored as electronic files. The written records, contemporaneous notes, and audio recordings are all stored securely. All interviews are confidential and therefore the above will not be available for publication. The data and notes can be verified through the academic and professional supervisors. Training and supervision were provided by the same supervisors and other academic staff within Adelaide University. Specialised training and certification was attended to use the CIDI.

4.8 Data Storage

All information will be held in the forensic mental health service in a secure area. No information or recordings will be held outside of the forensic mental service. All information will be treated as confidential unless de-identified by the author for publication purposes.

CHAPTER 5

ANALYSIS OF OFFENCE AND PTSD DATA (PCLS & CAPS)

5. Analysis of Offence and PTSD Data (PCL & CAPS)

We start this chapter by looking at who participated in the research, but also discuss non-participation and how this occurred. The population within the study and their offence type are stated for all patients asked to participate. The data is then honed to the actual patients that participated and successful interviews which is the sum of 39 patients. The relationships to the victim are explored and these results are compared to some of the national crime data. The Clinician Administered PTSD Scale (CAPS) is the focal point for the research, being the gold standard tool in the study of PTSD. Part of this interview process involves asking patients about their trauma history and the multiple types of trauma and the data around this topic are described. Detailed data from the cohort on each DSMIV-TR symptom is provided and these are divided into re-experiencing, avoidance, and arousal symptoms. A data analysis between crime type and various PTSD tools is provided. A categorical analysis of the cohort by crime type and gender is also listed.

5.1 Participants

Forty eight (n=48) (100 %) people were approached to participate in this study. Nineteen percent (19%) (n=9) of which refused to participate or started the interviews and dropped out; eight percent (8%) (n=4) after the first interview. The drop out after the first interview was particularly noted for Aboriginal and Torres Strait Islander Community patients; six percent (6%) of the total sample (n=3) stopped after their first interview and one person refused to participate and had a general anger toward the system and authority. Seventeen percent (17%) (n=8) of the total sample were from the Aboriginal and Torres Strait Islander Community but only sixty two percent (62%) (n=5) of this small group completed all interviews. Those patients who were Aboriginal and Torres Strait Islander Community patients (were less likely to participate or would drop out; as opposed to those who identified themselves as Aboriginal and Torres Strait Islander Community patients that lived in the city area were more likely to participate and complete the interviews. It was unclear, but there is a tendency for Aboriginal and Torres Strait Islander Community patients to be private and not want to discuss anything about themselves. They are particularly shy in talking about their culture.

One patient from the full sample (48 patients) wouldn't give information as he said he could not remember anything, although it seemed that this was because his case was due in court and he was reluctant to discuss it, but there is the possibility that he could not remember the event. An inability to remember has been a common theme with interviewees who have stated they can only remember partial if any aspects of their offence. This is referred to as 'dissociative amnesia', that is forgetting memories following a traumatic experience, as opposed to a

'dissociative state' which refers to an altered state of consciousness during the trauma (Porter et al. 2001).

Six percent (6%) (n=3) patients from the total sample of 48 patients refused to be involved outright. Four percent (4%) (n=2 of 48) of these were extremely paranoid about authority, and one patient said it would be too traumatic for him to discuss anything about his offence (homicide) as it gave him anxiety attacks, but this could have been an avoidant type of behaviour although in many cases from the sample anxiety was expressed when recalling their offence.

Avoidance behaviour may have many motives, for example not wanting to discuss symptoms for discomfort reasons or just avoidance in talking to staff about their offence as it may affect release. Discussing offence behaviour with patients is not usual practice in forensic units, unless it is a specifically identified intervention. In practice, staff tend to avoid the topic unless the patient raises the issue. There are limited examples of group therapy that are offence focused. It could be argued that in order to ensure offenders are safe to return to the community, their offences should be fully explored with them. This of course has the risk of re-traumatising the individual every time they discuss it, leaving the practitioner in a dilemma around whether it is safe to broach the topic with the patient. There is on the other hand a duty to rehabilitate the forensic patient in order to protect the public. Should the patient be able to refuse to discuss their offence and still be released?

Unfortunately, 4% (n=2) of patients who said they would participate were discharged at short notice by the courts, and were unable to proceed to the interview stage. Of the total sample 48 patients, 89% (n=39) were successfully interviewed, participating in all questionnaires and data collection.

5.2 Non participants

There were a number of patients that expressed paranoia as their main symptom during their stay, and for 3 patients that refused, they tended to be non-trusting of all staff and were generally not communicative when it came to discussing their illness or symptoms. All three of these patients have been released since the study was completed. Their paranoid type symptoms remained with them even at the time of release.

Refusals or dropout	Total 9
4 dropped out after first interview	4 (all men – 3 Aboriginal or Torres Straits)
3 refused	3 (1 woman and 2 men) paranoia?
2 discharged prior to interviews	2 (2 men)

Figure 6 Non participants: Refusals and dropout

Ensuring patients would be around for full participation was no easy task. As participation required many interviews over a number of weeks or even months, this affected selection. Those patients who were entering the facility for a short

term, or were likely to be released within weeks, or there was doubt about their impending discharge, then they were not approached to be in the study. This led to some errors in choice, and indeed 2 patients were released following their consent to participate in the study but were classed as ‘drop out’ and are not part of the final 39.

The sample size however is a reasonable sample when compared with other studies of a similar style. For example the study by Spitzer et al (Spitzer et al. 2001) had 53 participants (51 men and 2 women) with a dropout rate of 7% (n=4).

5.3 Offence Type of Sample (n=48):

Homicide was the most serious offence, and each patient had only one homicide victim, but one patient had also attempted to kill a second victim. In most cases the attempted homicide cases also had only one victim, but again one patient had attempted to kill two people using a large kitchen knife. The majority of crimes in this area are a frequent headliner of the major news programmes, and often make the front page of the main Adelaide newspaper “The Advertiser”. Similarly when there is any attempt at releasing patients through the court process; the same newspaper will often have a one or two-page spread reviewing the event and regularly invokes issues that reflect the safety of the community. For one particular patient, anytime there was an issue around mental health, they would portray his image during his arrest on the television news as an example of how the mental health system can go radically awry. This was not helpful for the patient who did not want to be reminded that he had killed someone; the reminder being almost weekly at times on the main television news. Such pervasive coverage did not help his standing with his peers either.

Offence Type	Amount of cases
Homicide	15
Attempted Homicide	14
Serious Assault (GBH)	8
Armed Robbery	3
Stalking	2
Arson	1
Other	5

Definition GBH = Grievous Bodily Harm – resulting in serious injury to another

Figure 7 Full Sample Offence Type

5.4 Offence Mode of Sample (n=48):

The data below identifies the mode of attack, or assault on the victim. For example 15 patients used a sharp weapon in order to injure their victim and this ranges from using a pair of scissors, a kitchen knife, a broken piece of crockery, and for one patient, a pen: In four of these cases the victim was killed, one being a child who was killed with a knife. Stabbing or beating can often lead to an action called 'overkill' and one of the patients stabbed their victim in excess of 40 times. This would take great energy and emotion and as you can imagine would cause great blood loss. Here is an excerpt from a coronial inquiry:

The examiner observed a total of 42 individual stab wounds to the victim, mainly to the chest and abdominal region. The examiner summarised his opinion concerning the cause of death as follows:

'Death was due to multiple stab wounds. Many penetrated the chest cavity and/or upper abdomen with additional stab wounds to the left and right upper arms (injuries 5 and 27 respectively) and to the neck (injury 2). Three injuries to the hands consistent with defence injuries were noted (injuries 29, 30 and 31). One stab wound entered the spinal canal but did not injure the spinal cord (injury 37).

Internally, the wounds to the chest resulted in seven full thickness punctures of heart chambers (6 to left ventricle, one to right atrium), any of which in isolation could have proved rapidly fatal. In addition, there were multiple punctures of the lungs (13 in total), two stab wounds to the liver and one to the spleen.

Death resulted from rapid loss of blood from the circulation largely due to the cardiac stab wounds. There was no reasonable prospect that medical intervention, even if it was immediate, could have prevented the death due to the large number of rapidly lethal injuries.'

Coronial Report (intentionally not referenced)

It is these sorts of chaotic and violent events that are likely to lead to 'reliving' such actions in dreams or in flashbacks. The action of overkill is reported in the literature, and such enmity or anger toward the victim has been seen where the person is closely related to the victim such as the mother (matricide) or other close relative. In one reported case in South Australia the perpetrator stabbed the victim 177 times, and in another case used a rock to smash the person's head until it had been virtually destroyed (Wick et al. 2008). One of the patients in this study had

killed a close relative and had caused multiple injuries through multiple stabbings and cutting motions.

Method / Mode of Assault	Amount of cases
Stabbing or using knife	15 (4 homicides)
Beating	7
Strangulation / suffocation	6 (all homicides – 2 being children)
Shooting	4 (2 homicides)
Other weapon (e.g. hammer)	3 (2 homicides)
Motor vehicles	3 (1 homicides)
Stalking or sexual	3
Arson	1
Other	7

Figure 8 Mode of Assault or Act of Harm

Using these offence modes it becomes clear that stabbing or using a knife stands out as being the main method of injuring or killing others. The second most lethal mode of attack was strangulation or suffocation, such an act is considered the most difficult in hand to hand combat and would be considered the most intimate form of killing, this mode of killing was referred to by one special forces soldier 'that by its very nature is an intensely vivid and personal matter' causing revulsion and vomiting in some (Grossman 1995) page 115. The mode of assault, particularly in women is considered to have an effect on whether the individual has an outcome of PTSD (Bownes, O'Gorman & Sayers 1991). In a 20 year retrospective review of matricides in South Australia covering 11 cases the following methods were used blunt instruments (N = 5), knives (N = 5), fire arms (N = 3), or ligatures (N = 1). 8 of the 11 cases had a mental illness, one of them suicided following the homicide, suggesting that not only the method but disposition may have a bearing on the person's outcome (Wick et al. 2008).

In a 7 year study of 3930 homicides over a third used a sharp instrument, and it was found that methods varied significantly between diagnostic groups such as schizophrenia and affective disorder. People with Schizophrenia for example are more likely to kill by the method of stabbing and more likely to kill a family member, whereas someone with an affective disorder is more likely to use strangulation or suffocation (Rodway et al. 2009).

Whilst it is not possible to relay the cases of the patients of this study in detail, if we consider a case from the press (Adelaide Advertiser) in 2012, the Kapunda triple murder case in South Australia, it provides some graphic idea of how brutal such cases can be. A 20 year old man stabbed his girlfriend, and her parents to death, stabbing each victim at least 20 times, and the mother up to 50 times, breaking the knife in one of his victims skulls, and then raping the daughter before killing her (Fewster 2012). Such brutal murders must take great effort and an emotional outburst of energy, that the images and experience must be a permanent reminder in the mind of the perpetrator. It is examples like this however that can lead the reader and the average person in the street to think such heinous crimes do not deserve any sympathy or care (in the case cited above the person pleaded guilty and was not considered to have a mental illness).

Society however deems that we provide a safe secure environment to those that are considered to be suffering from a mental illness after committing such offences and part of that process requires a model of care and rehabilitation. Through researching how such tragedies occur through the eyes of the perpetrator, not only can we assist them in their rehabilitation but we can prevent future tragedies by learning from some of the systemic mistakes. Through rehabilitation processes, we can make patients safer to release into the community.

The proximity to victims has also been described as a factor in the response to killing. The only comparative declarative experience we can tap into is that of war veterans. For example, soldiers have described shooting someone from a distance, as opposed to stabbing the victim, or being involved in hand to hand combat. The closer the victim means the perpetrator witnessing the visual and immediate result of their actions. Grossman (1995) reflects on the act of killing with a knife;

“Many knife kills appear to be of the commando nature, in which someone slips up on a victim and kills him from behind. These kills, like all kills from behind are less traumatic than a kill from the front since the face and all its messages and contortions are not seen. But what is felt are the bucking and shuddering of the victim’s body and the warm sticky blood gushing out, and what is heard is the final breath hissing out”.

These are the experiences of soldiers killing at close range and as described above, soldiers tend not to want to see the faces, eyes, or human behavioural characteristics of their victims (Grossman 1995). Many soldiers report physical revulsion at their actions, vomiting and tremendous guilt immediately after the act. Killing is seen as something primal and against human instinct, and great efforts are made by the army to ensure soldiers are able to kill, overcome their instinct not to kill, and use their weapons in war. There are many examples and stories of how large numbers of soldiers would fire above the enemy, or not fire their weapons at all (Bourke 1999). Most cases of homicide described in this study, were at close range with a knife, or through physical hand to hand violence. Many soldiers have described lifelong trauma and guilt from such actions (Grossman 1995).

5.5 Participants: 39 Total Participants Age & Gender

Males	32 82% (average age 35)	3 Aboriginal and Torres Strait
Females	7 18% (average age 40)	1 Aboriginal and Torres Strait

Figure 9 Participants by Gender

Offence type of total 39:

Homicide	13 (33%)	(4 females 10%)
Attempted Homicide	13 (33%)	(2 females 7%)
Serious Assault (GBH)	5 (13%)	(0 females 0%)
Armed Robbery	2 (5%)	(0 females 0%)
Stalking	2 (5%)	(1 females 3%)
Arson	1 (3%)	(0 females 0%)
Other	3 (8%)	(0 females 0%)

Figure 10 Offence Frequency and Gender

5.6 Victim Type

The majority of offences were violent acts against people: 63% (n=30) of these were against strangers; (6% n=3 of the 30 being against the police i.e. 27+3) and 27% (n=13) offences were against people close to their victim such as immediate family or friends. This is significantly different to the national statistics on homicide where most victims are known to the perpetrator or are indeed a close family member such as parent, partner or child (Dearden & Jones 2008) . In a 10 year analysis of homicides by those diagnosed with a mental illness 49% were a family member, as opposed to 10 % being strangers. Whereas those without a mental illness who committed homicide were more likely to kill a friend or acquaintance at 25% (Mouzos 1999).

Victim Relationship from Studied Cohort N=48					
stranger	family	friend	police	other	Total
27	9	4	3	5	48
56%	19%	8%	6%	10%	100%

NOTE:
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Figure 11 Victim Relationship from Studied Cohort Whole Sample

Almost 2 in 5 homicides in Australia are family homicides and there are on average 129 family homicides each year, around 25 of these being children and those under the age 1 are most at risk (Mousoz & Rushforth 2003) Proximity

such as being a neighbour, family member, or friend was a high risk factor. If we consider some of the national statistics in Australia:

- Homicide in Australia Over a 15 year period:
 - 4696 homicide incidents
 - 5050 victims
 - 5124 offenders
 - More likely to be killed on a Friday / Saturday night between 6pm and 6am.
- Main motives for murder are domestic arguments, revenge, money and drugs

Adapted from (Mousoz & Rushforth 2003)

Figure 12 Homicide Data in Australia

Types of Family Homicide

Definitions:

- Filicide killing a child
- Parricide killing a parent
- Siblicide killing a sibling
- Intimates killing partner or de facto
- Other family killing a cousin or in-law

NOTE:

This figure/table/image has been removed to comply with copyright regulations. It is included in the print copy of the thesis held by the University of Adelaide Library.

Adapted from: (Mousoz & Rushforth 2003)

Figure 13 Types of Family Homicide

Homicide and Attempted Homicide (n=29 of total 48)

Twenty four (n=24) of the twenty nine (n=29) victims were male. When we review the data on only homicide and attempted homicide then the relationship of the perpetrator to the victim is more evenly balanced at around 48% (n=14) likely to be a stranger, and 52% (n=15) other (that is family and friends).

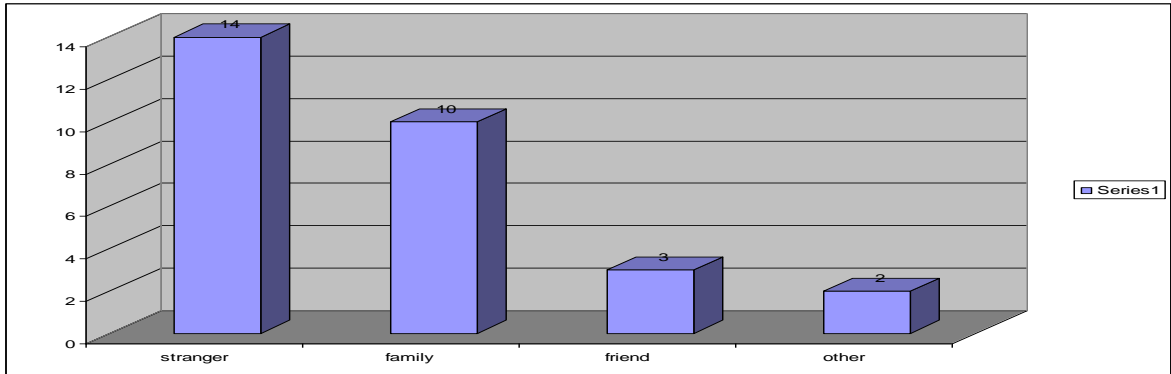


Figure 14 Victim Relationship Homicide / Attempted (sample 24)

Homicide only

When looking at homicide group alone (n=13), it is a similar picture to above with a high number 46% (n=7) likely to be a stranger, but more are likely to be family or friends or other 54% (n=8). This is a small sample and the national statistics provide an analysis of data on mass (Dearden & Jones 2008). When multiple family members are killed, this is known as familicide (Liem & Koenraadt 2008).

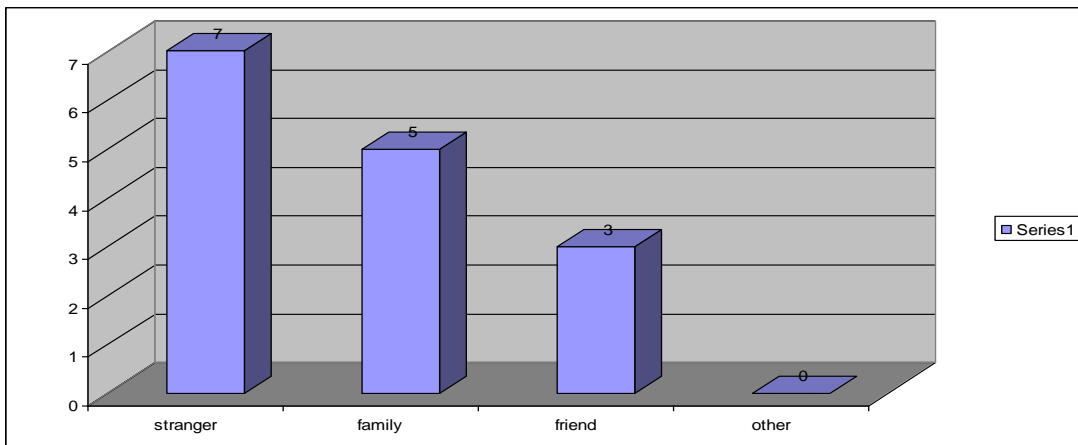


Figure 15 Victim Relationship Homicide only (sample 15)

5.7 Comparison of Data across Offence Type

Statistical analyses were performed using SAS Version 9.2 (SAS Institute Inc., Cary, NC, USA).

Continuous outcomes

Continuous outcomes were compared between the three offence groups using one way ANOVA models. Results are shown in the table below.

Variable	Offence type 1 Homicide (n=13)		Offence type 2 Attempted Homicide (n=13)		Offence type 3 Other Offences (n=13)		N	De n DF	F valu e	P value
	Mean	SD	Mean	SD	Mean	SD				
PCL-C	35.85	13.37	43.38	17.90	35.62	13.19	2	36	1.13	0.3336
CAPS	34.15	22.97	47.85	30.96	39.70	26.34	2	33	0.84	0.4393
Past Feelings	7.54	2.73	10.92	7.65	9.54	7.81	2	36	0.89	0.4197
Aggression	66.46	17.58	81.00	22.19	76.77	17.09	2	36	1.99	0.1508
BPRS	33.15	7.84	37.00	12.93	33.23	9.19	2	36	0.60	0.5531
Impact of Events	28.46	19.97	30.54	25.55	22.46	16.89	2	36	0.51	0.6028

Figure 16 Comparison of Data across Offence Types

SD = standard deviation

(PCL-C = PTSD Checklist – Civilian Version)

(CAPS = Clinician Administered PTSD Scale – measures PTSD)

(BPRS = Brief Psychiatric Rating Scale – measures psychosis)

The mean PTSD checklist Civilian Version (PCL-C) score was highest in offence type 2 criminals (mean = 43.38, SD = 17.90) and lowest for offence type 3 criminals (mean = 35.62, SD = 13.19). A one-way ANOVA model did not find a significant difference in means between the three groups however ($F(2, 36) = 1.13, p = 0.33$).

As all the p-values were > 0.05 , there was no statistical evidence to suggest that there were differences between the three groups in the measures considered.

Note that I have not presented any post-hoc p-values (i.e. group 1 vs. 2, 1 vs. 3 and 2 vs. 3) since the overall ANOVA models were not statistically significant.

Categorical outcomes - sex

To test for an association between sex and offence type, a Fisher's exact test was performed.

Offence type	Sex		
	female	male	Total
Frequency Row Pct.			
1 Homicide	4 30.77	9 69.23	13
2 Attempted Homicide	2 15.38	11 84.62	13
3 Other Offences	1 7.69	12 92.31	13
Total	7	32	39

Figure 17 Offence Type and Gender Analysis

The table shows that 69.2% of offence type 1 criminals were male, compared to 84.6% and 92.3% for offence types 2 and 3 respectively. A Fisher's exact test did not find an association between offence type and sex however ($p = 0.4532$).

The sample is too small to determine whether there is any significant gender differences for type of offence, but when we look at the national data set for homicide for 2006-2007 (a similar period for this study) there were 266 homicides in this period. It is clear that males are more likely to be the perpetrators with the male offender rate for this period being 2.3 per 100000, and the female offender rate was only 0.5 per 100000 (Dearden & Jones 2008). Women in prisons tend to report at least twice the rate of mental illness than men. One study quotes 40% women compared to 18% of men had symptoms of mental disorder, whilst 53% of women had symptoms for PTSD (Kubiak, Beeble & Bybee 2010). Women are twice as likely to kill an intimate partner, whereas killing a stranger is relatively rare. Age is also a risk factor for males, up until their mid-twenties the homicide rate is high, and then starts to titrate downwards, but with females the offending rate is reasonably constant between the ages of 20-50 (Dearden & Jones 2008). In this study 2 of the seven women had stabbed their partners in the neck (attempted homicide), 2 had killed their children, and 1 their mother, supporting the theme that they are more likely to harm intimate partners or immediate relatives.

5.8 Researching PTSD symptoms (Using the CAPS):

NB: All statistics cited in later tables will refer to the total participative sample of 39 patients being 100% i.e. drop out and refusals have been removed. The main tool of focus for this research was the Clinician Administered PTSD Scale and reference to this tool will be abbreviated to “CAPS” for further reference. The CAPS is considered to provide reliable diagnostic reporting of those suffering PTSD when they have a Total Severity Score (TSEV \geq 65) of greater than 65 but tends to under diagnose when compared to structured interviews such as the SCID (Weathers, F., Keane, T. & Davidson, J. 2001) page 140. Hence a battery of other tools was also used to support the examination of current mental health symptoms, comorbidity and other phenomena around committing or witnessing a serious offence or trauma assisting in the provision of collateral data and analysis.

There is also discussion around ‘subthreshold ptsd’ and this refers to lower scores that may indicate the person actually has PTSD or may well be heading toward such lifetime symptoms. No patients were approached until at least one month following their offence (i.e. 4 weeks), both for ethical reasons and also as part of the diagnostic criterion of having the symptoms for at least one month. Additionally, there was little point in asking whether the symptoms had affected their everyday functioning, as their current context was being incarcerated in a forensic mental health facility, leading to a dramatic change in social, work and family life. Patients were currently receiving high doses of medication in relation to their acute and sub-acute phases of mental illness, and this could also confuse the picture. That being said at least twenty one percent (21%) of the sample had severe symptoms of PTSD with scores higher than 65, whilst thirty three percent (33%) had scores of equal to or greater than 45 which would give them a probable diagnosis of PTSD. There were also an additional ten percent (10%) (n=4) of patients with subthreshold PTSD that is a score of 39 or greater but less than 45. Forty three percent (43%) (N=17) had some form of PTSD related distress with scores of 39 or higher.

Summary of Scores (TSEV – Total Severity Score):

CAPS Scores of Total Participants (N=39):

- **PTSD** **33% (n=13) patients had scores \geq 45 (10% n=4 female)**
- **Severe** **21% (n=8) patients had scores \geq 65 (8% n=3 female)**
- **Subthreshold** **10% (n=4) patients had scores \geq 39 (3% n=1 female)**

Total of 43% with some degree of distress related to PTSD.

Figure 18 Summary of CAPS Scores

5.9 PTSD Check List - C (Civilian version) PCL-C

The PTSD checklist Civilian Version (PCL-C) is a user friendly tool, in that it can be administered in around 5 to 10 minutes and was developed by Weathers et al (Weathers et al. 1993). It has been reported to have good internal consistency, test re-test reliability, convergent validity and discriminant validity (Ruggiero et al. 2003). It is a simple checklist of symptoms that relate to a specific incident and the person is asked to report if they have had any of those symptoms in the past month. Prior to the symptom questions, the patient is asked to name their 'Most stressful life event'. Similarly to the Clinician Administered PTSD Scale (CAPS), the questionnaire works through the 17 symptoms listed in the DSMIV-TR (APA 2000). The interviewer worked through the questionnaire with each patient, asking them to report on the symptoms using the scores 1 'Not at all', 2 'A little bit', 3 'Moderately', 4 'Quite a bit', and 5 'Extremely'. This is an appropriate tool to use alongside the CAPS as it has been shown to have a 0.929 correlation and the diagnostic efficiency was 0.900 versus the CAPS (Blanchard et al. 1996). The items are listed below in order of frequency of selections. The patient was considered to have selected this item as a problem if they had selected 'Moderately' or above i.e. scores 3, 4 and 5. So for the first item below 56% (n=22) patients identified 'Avoiding Thinking about' their most stressful event in the last month moderately or above. The number on the left is the order the questions appeared in the tool.

In order of frequency:

6	Avoiding Thinking about	22	56%
1	Repeated Disturbing Memories	20	51%
15	Having difficulty concentrating	19	49%
4	Feeling very upset	17	44%
9	Loss of interest	16	41%
10	Feeling Distant or cut off	16	41%
13	Trouble falling asleep	16	41%
8	Trouble remembering	15	38%
16	Being Super alert or watchful	13	33%
7	Avoiding activities of situations	12	31%
3	Suddenly acting or feeling	11	28%
5	Having physical reactions	11	28%
2	Repeated Disturbing Dreams	9	23%
11	Feeling emotionally numb	9	23%
12	Feeling as if future cut short	9	23%
17	Feeling Jumpy	8	21%
14	Feeling irritable	5	13%

Figure 19 PCL-C Scores by Frequency of Score

The three most prominent symptoms identified by the PTSD checklist Civilian Version (PCL-C) were avoiding thinking about it at 56% (avoidance symptom); repeated disturbing memories at 51% (re-experiencing) and having difficulty concentrating at 49% (arousal). A key symptom in each cluster B, C, D. Three of the top 4 symptoms coincide with the CAPS most frequently selected symptom.

Top 4 PCL	%	Top 4 CAPS (Frequency)	%
Avoiding Thinking about (avoidance)	56%	Trouble remembering (Avoidance)	67%
Feeling very upset upon reminders (Rx)	44%	Feeling very upset upon reminders	69%
Having difficulty concentrating (Arousal)	49%	Having difficulty concentrating	64%
Repeated Disturbing Memories (Rx)	51%	Repeated Disturbing Memories	64%

When we compare these to the TOP 4 scores using the ITSEV, the picture is slightly different

Top 4 PCL	%	Top 4 CAPS (Severity)	%
Avoiding Thinking about	56%	Trouble remembering	51%
Feeling very upset upon reminders	44%	Feeling emotionally numb	49%
Having difficulty concentrating	49%	Feeling Distant or cut off	46%
Repeated Disturbing Memories	51%	Repeated Disturbing Memories	44%

It seems paradoxical that ‘trouble remembering’, ‘avoiding thinking about it’, and ‘repeated disturbing memories’ are among the top symptoms. This highlights the confusion within the mind around memories of an event. The mind is attempting to avoid thinking about the event, which may be the cause of the inability to remember the event, yet there are repeated disturbing memories of the event. It paints a picture of the individual attempting to unconsciously suppress the event, with the outcome of repeated disturbing memories and dreams. The severity of symptoms and the scores using the CAPS are discussed in section 6.1.

5.10 Major Traumas identified with CAPS Questionnaire

The Clinician Administered PTSD Scale (CAPS) reviews 17 stressful life events that may have occurred across the lifespan and the following areas were identified by the sample. On average males and females had 8 stressful areas identified, ranging between 2 to 16 events. If you examine the frequency in the second table, it is notable that 74% (n=29) of the sample had experienced a motor vehicle accident; 74% (n=29) had experienced a physical assault; and 72% (n=28) identified serious harm or death they had caused to someone else. This data could be used to identify future exploration in relation to major risk areas for this population. Over half of the sample 54% (n=21) had been involved or witnessed an assault with a weapon. Many patients had expressed having lost someone close to them 69% (n=27) and had expressed that it had a major impact on them.

3	Transportation accident	29	74%
6	Physical Assault	29	74%
16	Serious injury, harm, or death you caused to someone else	28	72%
15	Sudden unexpected death of someone close to you	27	69%
7	Assault with a weapon	21	54%
17	Any other stressful event	20	51%
14	Sudden violent death i.e. homicide suicide	14	36%
8	Sexual Assault	13	33%
12	Life threatening illness	13	33%
2	Fire or Explosion	12	31%
4	Serious accident	11	28%
9	Other unwanted or uncomfortable sexual experience	10	26%
5	Exposure to toxic substances	8	21%
11	Captivity	8	21%
13	Severe human suffering	8	21%
1	Natural Disaster	6	15%
10	Combat or exposure to war	2	5%

Figure 20 All Traumas Experienced in order of Frequency

5.11 Primary Stressor: Worst Thing Ever

Patients were asked to pick their three most stressful life events and to prioritise them and this would assist the focus of the interview. The initial aim of the study was to review stress around the patient's offence, so it was useful to see how patients prioritised their stressors in relation to their offence. Fortunately for this research, the majority of patients identified their offence as the main stressor. Although some patients, even though they had committed an offence such as a violent homicide, reported that the death of their mother was their most traumatic experience. What is significant in this research is that 41% (n=16) related their current suffering as caused by 'the serious injury, harm or death' caused by them, whereas 18% (n=7) reported the death of someone close to them as their main area of stress. Some of these cases would have involved the murder or attempted

murder of that relative (son x4, mother x3, and partners x3). The top four items make up 79% (n=31) of all primary stressors selected. This provides an area of potential future research. The four items listed in the table below can be mostly linked to the person's crime except for sexual assault, which is something usually experienced in childhood and can affect patients well into their adulthood. Sexual abuse may have a strong link between antisocial and criminal behaviour.

The following table indicates the primary stressor selected by candidates. Although 3 patients had witnessed others being killed in a transportation accident, one being the perpetrator of homicide using a vehicle and another trying to kill someone using a vehicle did not see this as their primary stressor. It became evident after the first interviews that it was not possible to discern symptoms in relation to specific events. For example if a patient has difficulty in sleeping or nightmares, it is difficult to say whether it is related to anyone of the 16 events that the person had experienced. The trauma symptom could have related to any event, so patients were asked to discuss what was the worst event for them? If they did not identify their offence as their worst event, they would be asked to discuss this as part of a Criterion 'A' factor, provided they had indicated this as one of their traumatic events.

PRIMARY STRESSOR EVENTS (frequency) – Worst Event Ever		
Serious injury, harm, or death you caused to someone else	16	41%
Sudden unexpected death of someone close to you	7	18%
Sexual Assault	4	10%
Sudden violent death i.e. homicide suicide	4	10%
Any other stressful event	2	5%
Transportation accident	1	3%
Physical Assault	1	3%
Assault with a weapon	1	3%
Other unwanted or uncomfortable sexual experience	1	3%
Life threatening illness	1	3%
Severe human suffering	1	3%
Natural Disaster	0	0%
Fire or Explosion	0	0%
Serious accident	0	0%
Exposure to toxic substances	0	0%
Combat or exposure to war	0	0%
Captivity	0	0%

Figure 21 Primary Stressor Event

There are four key events that the forensic cohort identified as most stressful. Almost half of the sample indicated that the 'serious harm or death you caused to someone else' was one of their major stressors for 41% (n=16) of the sample, followed by 'sudden unexpected death of someone close' at 18% (n=7). This is a big gap between the first priority item and other stressors, indicating that the patient's crime is clearly the most common area of stress among a forensic

population. Sexual assault and Sudden violent death were other high rating stressors at a rate of 10% (n=4) each. These 4 items alone covered 79%.

Many of the incidents of stress reported were of a serious nature and ranged from child abuse through to the killing of another. The reporting of multiple traumatic events from forensic patients requires further future research as this seems to be higher than that reported in other samples.

5.12 The 17 CAPS (DSMIV-TR) Symptoms:

The full 17 symptoms were explored using an in depth interview using the Clinician Administered PTSD Scale (CAPS). Patients were asked to identify if they had experienced a symptom and how often that had occurred in the last month. Then through a series of questions and discussion they were asked how intense those symptoms were. The table below shows how many patients said that they had experienced the symptoms listed 64% (n=25) for example acknowledged that the symptom for 'Repeated Disturbing Memories' was present over the last month, and the total 'Severity' scores are explored further in chapter 6 (6.1). As part of the interview process, the patient would be asked if they had experienced the symptom in the last month, and if so, how intense was that symptom. The frequency (how often in the last month) and the intensity score (how intense did you feel the symptom) were added together. The table below only indicates if a symptom was present and the Intensity / Severity (ITSEV or TSEV) scores are discussed in chapter 6 under the heading Reviewing Results of PTSD – CAPS & PTSD checklist Civilian Version (PCL-C).

Out of the 39 patients that took part 64% (n=25) had identified a positive score for the symptom of Repeated Disturbing Memories; 41% (n=16) for Repeated Disturbing Dreams and the table below lists them in order of the DSMIV-TR symptoms (APA 2000) The second table (see figure 23 – next section 5.13) then prioritises the symptoms in order of highest frequency selected.

	SYMPTOM	PRESENT	%
1	Repeated Disturbing Memories (re-experiencing)	25	64%
2	Repeated Disturbing Dreams(re-experiencing)	16	41%
3	Suddenly acting or feeling (re-experiencing)	11	28%
4	Feeling very upset (re-experiencing)	27	69%
5	Having physical reactions (re-experiencing)	13	33%
6	Avoiding Thinking about (Avoidance)	23	59%
7	Avoiding activities of situations (Avoidance)	11	28%
8	Trouble remembering (Avoidance)	26	67%
9	Loss of interest (Avoidance)	19	49%
10	Feeling Distant or cut off (Avoidance)	23	59%
11	Feeling emotionally numb (Avoidance)	23	59%
12	Feeling as if future cut short (Avoidance)	10	26%
13	Trouble falling asleep (Arousal)	21	54%
14	Feeling irritable (Arousal)	8	21%
15	Having difficulty concentrating (Arousal)	25	64%
16	Being Super alert or watchful (Arousal)	12	31%
17	Feeling Jumpy (Arousal)	10	26%
	B cluster 1-5 (out of a possible 195- i.e. 5 x 39)	92	47%
	C cluster 6-12 (out of a possible 273- i.e. 7 x 39)	135	49%
	D cluster 13-17 (out of a possible 195- i.e. 5 x 39)	76	39%

Figure 22 CAPS Symptoms

(Although symptoms are clearly higher for memories and dreams when compared against all symptoms; an accumulated score of all symptoms for each cluster indicates that almost half of all patients had symptoms across the three clusters 47%; 49% and 39% respectively), which is necessary for a diagnosis of PTSD. When we place the symptom in order of frequency in the table below, it becomes more evident which symptoms are most prominent and it can be seen that they flow across the three clusters almost randomly, rather than being in one specific cluster. It should be noted however that a large number of patients expressed that they had symptoms in multiple areas. Surprisingly, feeling irritable is the least expressed symptom, but many of the symptoms could be masked due to most patients being on some form of major tranquillisers and anxiolytics, and multiple treatments thereof (poly-pharmacy regimens).

5.13 PTSD Symptoms (CAPS) in order of frequency

(NB: this is not the total Clinician Administered PTSD Scale (CAPS) score but simply the frequency of reported symptom i.e. 25 patients (64%) reported repeated disturbing memories):

The most frequently selected symptom is a 'Feeling very upset upon reminders' of the traumatic event. Patients commonly reported that they felt stressed when somebody made a reference to their specific trauma or a programme on television had some related reference. There are numerous programmes on television today that re-enact murder scenes or serious assault and then go on to demonstrate how they have been solved; CSI of many variations for example. However, such programmes only serve to remind victims, witnesses and perpetrators of the event. There is clinical tension therefore in wanting to help them with treatment for their trauma, yet they feel upset when they are reminded of it. It is possibly this tension that prevents clinicians from discussing crimes with the patient. Avoidance is already a symptom of PTSD, avoiding thinking about the offence, or the victim, and avoiding talking about it. It is a clinical challenge therefore to strike a balance between not distressing the patient through reliving their memories, whilst attempting to complete some offence work, rehabilitation and victim empathy.

There were many patients who expressed they can hardly remember the event, yet at the same time there are problems with remembering through nightmares or flashbacks. The actual event and the nightmares are not necessarily of the same content. These nightmares and memories then cause problems with sleeping.

	Symptom in order of Frequency	Present	%
4	Feeling very upset upon reminders (re-experiencing)	27	69%
8	Trouble remembering (Avoidance)	26	67%
1	Repeated Disturbing Memories (re-experiencing)	25	64%
15	Having difficulty concentrating (Arousal)	25	64%
6	Avoiding Thinking about (Avoidance)	23	59%
10	Feeling Distant or cut off (Avoidance)	23	59%
11	Feeling emotionally numb (Avoidance)	23	59%
13	Trouble falling asleep (Arousal)	21	54%
9	Loss of interest (Avoidance)	19	49%
2	Repeated Disturbing Dreams (re-experiencing)	16	41%
5	Having physical reactions (re-experiencing)	13	33%
16	Being Super alert or watchful (Arousal)	12	31%
3	Suddenly acting or feeling (re-experiencing)	11	28%
7	Avoiding activities of situations (Avoidance)	11	28%
12	Feeling as if future cut short (Arousal)	10	26%
17	Feeling Jumpy (Arousal)	10	26%
14	Feeling irritable (Arousal)	8	21%

Figure 23 CAPS Symptoms in Order of Highest Frequency

5.14 DSMIV-TR PTSD Symptoms Expressed

Each of the 3 major areas of symptoms and data listed in the graphs above are taken from the Clinician Administered PTSD Scale (CAPS) and will be listed (re-experiencing, avoidance, and arousal), to provide a more detailed description as per the DSMIV-TR criterion. It may be useful for the reader to compare the results to the actual questions set out in the CAPS. A copy of the questionnaire is provided in the Appendix G.

5.15 Re-experiencing: 47% positive symptoms

Figure 24 Re-experiencing Data and DSMIV-TR description

Repeated Disturbing Memories	
25 patients	64%
(1) Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.	
Repeated Disturbing Dreams	
16 patients	41%
(2) Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.	
Suddenly acting or feeling	
11 patients	28%
(3) Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific re-enactment may occur.	
Feeling very upset upon reminders	
27 patients	69%
(4) Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event	
Having physical reactions	
13 patients	33%
(5) Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event	

Re-experiencing – discussion:

The two symptoms with the highest scores are feeling very upset upon reminders 69% (27 patients) of the sample, and repeated disturbing memories 64% (25 patients) of the sample. Many patients described how they became upset when triggers reminded them of the event that has traumatised them. Frequently seeing something on television, hearing someone talk about a topic, or seeing a person that resembled their victim would send them into an emotional state whereby they were remembering the event; most of the time, unwanted memories or even flashbacks. This would lead patients into patterns of avoidance of such triggers. Patients described how they dealt with these memories or flashbacks and many would try to be alone so others would not notice, or they would try to hide their symptom. An example was that patients would say they would suddenly be thinking about the event, and go off into a world of their own until someone would ask ‘are they O.K.?’ Some would deliberately isolate themselves giving themselves time and space to get over it. Many of these symptoms can be misinterpreted as symptoms of mental health disorders such as schizophrenia or depression, resulting in the trauma symptoms going untreated.

5.16 Avoidance: 49% positive symptoms

Figure 25 Avoidance Data and DSMIV-TR description

Avoiding Thinking about	
23 patients	59%
(1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma	
Avoiding activities of situations	
11 patients	28%
(2) Efforts to avoid activities, places, or people that arouse recollections of the trauma	
Trouble remembering	
26 patients	67%
(3) Inability to recall an important aspect of the trauma	
Loss of interest	
19 patients	49%
(4) Markedly diminished interest or participation in significant activities	
Feeling Distant or cut off	
23 patients	59%
(5) Feeling of detachment or estrangement from others	
Feeling emotionally numb	
23 patients	59%
(6) Restricted range of affect (e.g., unable to have loving feelings)	
Feeling as if future cut short	
10 patients	26%
(7) Sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)	

Avoidance – discussion:

Almost half of the sample 49% had expressed an inability to recall the event fully. In some cases, this was because of the passage of time, but for many it was due to a complete inability to remember important aspects of the event/s. When asked why they could not remember, or what reason they thought this might be, patients commented that they were too ill at the time, or that their minds would not allow them to recall the event as it was too painful or stressful. Many recognised this as a way of their mind coping with the situation, and thought it to be a natural process. A study of young offenders who had perpetrated violent offences reported that around 19% had difficulty with recall, whilst 1% had no recall. The reasons for lack of recall were high alcohol intake, emotional ties to the victim and cognitive processing during the event itself (Evans, Gillian & Ehlers 2009). The addition of psychosis and psychotic phenomena therefore may well increase the likelihood of memory inhibition, or a failure of the brain to record the event fully.

5.17 Arousal: 39% positive symptoms

Figure 26 Arousal Data and DSMIV-TR description

Trouble falling asleep	
21 patients	54%
(1) Difficulty falling or staying asleep	
Feeling irritable	
8 patients	21%
(2) Irritability or outbursts of anger	
Having difficulty concentrating	
25 patients	64%
(3) Difficulty concentrating	
Being Super-alert or watchful	
12 patients	31%
(4) Hypervigilance	
Feeling Jumpy	
10 patients	26%
(5) Exaggerated startle response	

Arousal – discussion:

The two main symptoms were ‘having difficulty concentrating’ (25 patients) 64% and difficulty in sleeping (21 patients) 54%. All patients had been within the unit for more than a month prior to interviewing as this was one of the criterion of participation. Most therefore had been settled on high doses of medication for some time, and many of the initial hyperarousal symptoms would have been reduced or masked. A high proportion of patients were still having difficulty in falling asleep and their concentration was poor. Many symptoms listed here are also experienced in other mental health disorders, so it is difficult to discern

whether the symptom is PTSD related or not. Sleeping disorders and difficulties with concentration were consistent throughout other questionnaire responses.

CHAPTER 6

CORROBORATING TOOLS AND DATA ANALYSIS

6. Corroborating Tools and Data Analysis

A wide variety of clinical / research tools were used to explore comorbid conditions and experiences in this population. Tools like the PTSD checklist Civilian Version (PCL-C) would be used as a screening tool as this can be administered in a brief period. The questionnaires travel across a broad range of conditions from a biological, psychological and social perspective. Looking at conditions like depression, psychosis and aggression. They also include questions about relationships with families, childhood abuse, financial circumstances, previous health issues, and quality of life matters. Each clinical / research tool is looked at in turn and the data findings provided. In most cases the data is presented in order of frequency of responses. Then cumulative scores and averages describe the trend for the cohort. Firstly the data from two PTSD tools are reviewed, and then the questionnaires from the Impact on Childhood Stress in Forensic Mental Health booklet is reviewed in the order they appear in the booklet (a copy of the questionnaire is provided in the appendix G).

6.1 PTSD in CAPS Total Severity Scores

Scores:

CAPS ITSEV Scores of Total Participants (N=39):

- **PTSD** 33% (n=13) patients had scores \Rightarrow 45 (10% n=4 female)
- **Severe** 21% (n=8) patients had scores \Rightarrow 65 (8% n=3 female)
- **Subthreshold** 10% (n=4) patients had scores \Rightarrow 39 (3% n=1 female)
- **Total of 44% with some degree of distress related to PTSD.**

The full 17 symptoms explored using an in depth interview using the Clinician Administered PTSD Scale (CAPS) where patients were identified to have an “Intensity” score (how often the symptoms were experienced) and “Severity” score (how strong were these feelings) greater than or equal four (≥ 4): So for example in item 1, there were 17 patients who had a score of four (4) or more for this symptom on the intensity / severity score or ITSEV for short. Please note that the scores cited in the following tables are ITSEV Scores combined, as opposed to the tables presented earlier when just the frequency of the symptom chosen were presented. The ITSEV scores are added together to a total i.e. 17 x ITSEV score to identify a diagnosis of current PTSD if the score is \Rightarrow forty five (45). Results listed above. The following tables indicate which symptoms attracted a positive ITSEV score above 4 (intensity + severity ≥ 4). Sometimes referred to as TSEV = total severity score.

CAPS ITSEV Scores => four (4) threshold

1	Repeated Disturbing Memories	17	44%
2	Repeated Disturbing Dreams	13	33%
3	Suddenly acting or feeling	9	23%
4	Feeling very upset	16	41%
5	Having physical reactions	9	23%
6	Avoiding Thinking about	13	33%
7	Avoiding activities of situations	9	23%
8	Trouble remembering	20	51%
9	Loss of interest	13	33%
10	Feeling Distant or cut off	18	46%
11	Feeling emotionally numb	19	49%
12	Feeling as if future cut short	9	23%
13	Trouble falling asleep	15	38%
14	Feeling irritable	7	18%
15	Having difficulty concentrating	15	38%
16	Being Super alert or watchful	10	26%
17	Feeling Jumpy	7	18%

The clusters Scores => four (4) present were selected as follows:

B cluster 1-5	64 out of possible	195	30%
C cluster 6-12	101 out of possible	273	27%
D cluster 13-17	54 out of possible	195	36%

Figure 27 CAPS Frequency & Intensity Scores Combined (TSEV)

Cluster C had the majority of symptoms identified, but this has 7 questions whereas B and D only have 5 questions. Many of these symptoms are also related to a variety of other mental health disorders, such as schizophrenia, and depression which may have the same symptoms as PTSD, and the medications used for treatment may also be masking symptoms.

The CAPS ITSEV Scores in order of reported frequency:

8	Trouble remembering - Avoidance	20	51%
11	Feeling emotionally numb - Avoidance	19	49%
10	Feeling Distant or cut off - Avoidance	18	46%
1	Repeated Disturbing Memories – Re-experiencing	17	44%
4	Feeling very upset – Re-experiencing	16	41%
13	Trouble falling asleep - Hyperarousal	15	38%
15	Having difficulty concentrating	15	38%
2	Repeated Disturbing Dreams – Re-experiencing	13	33%
6	Avoiding Thinking about - Avoidance	13	33%
9	Loss of interest - Avoidance	13	33%
16	Being Super alert or watchful - Hyperarousal	10	26%
3	Suddenly acting or feeling – Re-experiencing	9	23%
5	Having physical reactions – Re-experiencing	9	23%
7	Avoiding activities of situations - Avoidance	9	23%
12	Feeling as if future cut short - Avoidance	9	23%
14	Feeling irritable - Hyperarousal	7	18%
17	Feeling Jumpy - Hyperarousal	7	18%

Figure 28 CAPS Frequency & Intensity Scores (TSEV) Sorted by Score

The three leading symptoms were trouble remembering at 51% of cases; feeling emotionally numb in 49% of cases and feeling distant and cut off from others at 46% of cases. These are the areas that are most troublesome and disturbing for patients and should assist on focusing treatment. The top 3 areas selected fall into the avoidance cluster, meaning that patients will avoid thinking about their offence. For example over half of the patients had trouble actually remembering what they had actually done. Trauma interferes with memory and the recall of memory, and this may have significant implications for the way we treat offenders of major crimes.

If we compare the PTSD checklist Civilian Version (PCL-C) and the Clinician Administered PTSD Scale (CAPS), and also increase the sensitivity of the scores, we can see which symptoms received higher scores from patients.

Case number	CAPS symptom present =1	CAPS scores F & I scores >=4	CAPS scores F & I scores >=5	PCL scores >=3	PCL scores >=4	
1	Repeated Disturbing Memories	25	17	14	20	14
2	Repeated Disturbing Dreams	16	13	7	9	5
3	Suddenly acting or feeling	11	9	7	11	5
4	Feeling very upset	27	16	10	17	12
5	Having physical reactions	13	9	6	11	7
6	Avoiding Thinking about	23	13	11	22	12
7	Avoiding activities of situations	11	9	8	12	8
8	Trouble remembering	26	20	18	15	11
9	Loss of interest	19	13	7	16	9
10	Feeling Distant or cut off	23	18	14	16	10
11	Feeling emotionally numb	23	19	14	9	6
12	Feeling as if future cut short	10	9	7	9	6
13	Trouble falling asleep	21	15	15	16	11
14	Feeling irritable	8	7	6	5	2
15	Having difficulty concentrating	25	15	11	19	12
16	Being Super-alert or watchful	12	10	9	13	7
17	Feeling Jumpy	10	7	6	8	3

Figure 29 Comparison CAPS Scores and PCL-C scores

The comparison of these tools further supports the issue of loss of memory of the event, trouble concentrating, and feeling very upset. These three themes seem consistent across tools. Difficulty in falling asleep, loss of interest, and feeling distant or cut off from others were also frequently selected, and also had high scores. Many of the latter symptoms are considered to be part of other psychotic disorders and if not treated may confuse the clinical picture. The difficulty for clinicians is knowing which caused the symptom, the trauma or the psychosis. Where a history of trauma is present, by offering treatment for the trauma the clinician can focus on something that is tangible, as often with psychotic phenomena the cause is unknown.

6.2 Guilt:

The Clinician Administered PTSD Scale (CAPS) tool also has additional questions reviewing guilt, derealisation and dissociative symptoms as an added questionnaire (Q26-30). One of the questions asks “Have you felt guilty about anything you did or didn't do during the event?” and 33% (n=13) indicated that they did feel some form of guilt, but for many this was mild, with only 18% (n=7) indicating a score of 4 or more on the ITSEV score. A couple of qualitative responses from a selection of patients provide the reader with an insight into the attitude towards the offence and the guilt expressed:

- “feel remorse rather than guilt, feel sorry for victims, because of the attack, but try not to think about it”
- “Yes I feel guilty, I feel guilty that it happened to me. I know myself that I haven't done something, I was sick. I was suffering depression, shouldn't have happened.”
- “just felt guilty for doing it”
- “I just feel I caused things to go badly wrong. My son is going to miss out on a lot of stuff, his lifestyle has changed. Mainly because I'm not there with him. Footage in the papers won't do him any good.”
- “Deserved it” (referring to the victim)
- “Seriousness of what I've done, about hurting someone so badly. I wouldn't hurt an animal. Too hard to live within my head.”

The author was surprised to find that many patients had rationalised and understood that they were ill at the time of the offence. Only a third of patients acknowledged some level of guilt, but in most cases this was not expressed in terms of strong feelings of guilt with only 18% (n=7) patients having strong feelings of guilt greater than or = 4 (out a possible 8). Approximately three patients vacillated between feelings of ‘they deserved it’ to feeling bad about what they had done, and this would depend on their mental state at the time of the interview. The lack of guilt feelings is in contrast to that of returned veterans whereby many soldiers express guilt about their participation in killing and war. Many poems aptly describe the lifelong feelings of guilt that veterans suffer such as one expressed by a veteran of the Boer War:

***I killed a man at Graspan,
I killed him fair in fight;
And the Empire's poets and the Empire's priests
Swear blind I acted right...
But they can't stop the eyes of the man I killed
From starin' into mine***

(Bourke 1999) page 222

There are numerous references to soldiers feeling very bad about their participation in war, and this hinders their return to normal civilian life.

6.3 Impact of Childhood Stress on Adult Health

This booklet is a compilation of questionnaires that range from general biographical details to specific questionnaires such as the recent life events questionnaire. Each questionnaire data is presented as it was used in the booklet, a copy of which can be found in appendices G. The booklet was originally compiled by Professor Alexander McFarlane (Primary academic supervisor) and permission was given to edit this for the use within a Forensic Mental Health context. Tables are presented in the order of the booklet, and then they are presented in order of frequency to enable the reader to quickly identify the highest frequency issues.

6.4 Biographical Data

There are a number of questionnaires in the ICSAH and the results of each will be listed as follows:

Some facts from the biographical data:

- 7 females
- 32 males
- The youngest patient was 19 and the eldest 75
- The average age of males was 35 and the average age of females was 40. Over half the patients were under 35 (n=21).
- The majority of patients had never been married (n=24 or 62%), with only 5 patients in the sample married. 3 had separated from their partners, and 3 were widowed.
- 30 patients (77%) had left school before the age of 16 and 9 (23%) of those had left before the age of 14.
- 29 patients (74%) did not complete year 12.
- 23 patients (59%) had no qualifications whilst 5 (13%) had higher qualifications such as diplomas, or degrees.
- 14 patients (36%) had part time or full time employment prior to admission, whilst 16 were on a disability pension. Others were unemployed or doing home duties.
- 25 patients (64%) had household incomes of less than \$50,000 (19 or 49% of those with less than \$30,000). 10 patients (26%) had household incomes above \$80,000.
- 30 patients (77%) identified that they were on a government pension or allowance, whilst 8 (21%) were earning a wage.

- 22 patients had no children, 17 had children, although 1 patient said he had 10 children whilst the clinical team believed he had none.
- 5 Patients considered themselves Aboriginal and Torres Strait Islander Community and 34 did not.
- 12 patients identified a problem with learning to read.
- 13 patients identified a problem with learning to write.

Figure 30 Biographical Information about the Cohort

6.5 General Health Questionnaire

The general health of prisoners is known to be poorer than the general population. Many prison entrants are from a low socioeconomic background (48% being unemployed in the month before entry), have poor education (34% of entrants not having completed year 10) and poor health outcomes with 46% of discharges from prison having a health issue (Australian Institute of Health and Welfare. 2013).

Patients had surprising few health issues and many of the problems that were identified could have been related to medication consumption.

There were 4 main areas of health issues reported; back or neck problems being the most significant 41% (n=16). This is often related to extrapyramidal symptoms of psychotropic drugs, but may also be considered a psychosomatic symptom in relation to stress and tension. Similarly, Constipation and Diarrhoea 28% (n=11) are also a side effect of psychotropic medications, but also another stress symptom. Twenty six percent (26%) (n=10) of the patients reported significant infection issues, and this is often related to illicit substance use, such as sharing needles resulting Hep C / B. Joint problems were frequently reported 26% (n=10) and for some this related to long periods of inactivity or excessive weight gain, another side effect of psychotropic medication.

Q	General Health Questionnaire	History of - Yes		Yes - In the past year	
1	High Blood Pressure	8	21%	2	5%
2	Migraines	8	21%	3	8%
3	Asthma	7	18%	2	5%
4	Hepatitis or Yellow Jaundice	8	21%	3	8%
5	Bowel Disorder (i.e. diarrhoea, constipation, bleeding)	11	28%	4	10%
6	Irritable Bowel Syndrome	4	10%	2	5%
7	Diabetes	3	8%	3	8%
8	A thyroid problem	4	10%	3	8%
9	Any significant infections (i.e. hepatitis, HIV, pneumonia, glandular fever, leishmaniasis)	10	26%	2	5%
10	Arthritis or rheumatism	7	18%	1	3%
11	Fibrositis or Fibromyalgia	3	8%	2	5%
12	Back or neck problems	16	41%	7	18%
13	Joint problems	10	26%	5	13%
14	Sinus Problems	8	21%	3	8%
15	Ear Infection	9	23%	4	10%
16	Dermatitis	2	5%	2	5%
17	Eczema	2	5%	1	3%
18	Psoriasis	1	3%	0	0%
19	Chronic fatigue syndrome	4	10%	1	3%
20	Hay Fever	9	23%	2	5%
21	Any disease of the genital organs	3	8%	1	3%
22	Low fertility	2	5%	0	0%
23	Sexual problems	5	13%	3	8%
24	Premenstrual tension	2	5%	0	0%
25	Period problems	0	0%	0	0%
26	Miscarriages	1	3%	0	0%

Figure 31 General Health Questions

The same table In Order of Symptom Frequency:

Q	General Health Questionnaire	History of - Yes		Yes - In the past year	
12	Back or neck problems	16	41%	7	18%
5	Bowel Disorder (i.e. diarrhoea, constipation, bleeding)	11	28%	4	10%
9	Any significant infections (i.e. hepatitis, HIV, pneumonia, glandular fever, leishmaniasis)	10	26%	2	5%
13	Joint problems	10	26%	5	13%
15	Ear Infection	9	23%	4	10%
20	Hay Fever	9	23%	2	5%
1	High Blood Pressure	8	21%	2	5%
2	Migraines	8	21%	3	8%
4	Hepatitis or Yellow Jaundice	8	21%	3	8%
14	Sinus Problems	8	21%	3	8%
3	Asthma	7	18%	2	5%
10	Arthritis or rheumatism	7	18%	1	3%
23	Sexual problems	5	13%	3	8%
6	Irritable Bowel Syndrome	4	10%	2	5%
8	A thyroid problem	4	10%	3	8%
19	Chronic fatigue syndrome	4	10%	1	3%
7	Diabetes	3	8%	3	8%
11	Fibrositis or Fibromyalgia	3	8%	2	5%
21	Any disease of the genital organs	3	8%	1	3%
16	Dermatitis	2	5%	2	5%
17	Eczema	2	5%	1	3%
22	Low fertility	2	5%	0	0%
24	Premenstrual tension	2	5%	0	0%
18	Psoriasis	1	3%	0	0%
26	Miscarriages	1	3%	0	0%
25	Period problems	0	0%	0	0%

Figure 32 General Health Questions Sorted by Frequency

illicit substance use

6.6 Medication Usage:

The majority of patients 97% (n=38) were on medication in the last 2 weeks. Almost all of the medications identified related to mental health, depression and anxiety issues; with 82% (32) of patients identifying their use was for 'Mental Health'. Only a few patients identified items not on the list 21% (n=8) and added the following: Antihistamine; anti-inflammatory; cholesterol; multivitamins; panic disorder; skin condition; Thyroxin; and tremor. Sleeping problems 28% (n=11) and pain relief 15% (n=6) were two key non mental health areas identified by the sample. Anxiety 38% (n=15), Depression 31% (n=12), and keeping calm 26% (n=10) were also strongly reported. All of these symptoms are often reported with PTSD, but remain idiopathic as it is difficult to discern their cause from general mental health symptoms. Ideally, we should be able to filter out PTSD symptoms from mental health symptoms, treating the respective illness accordingly.

Medication Usage	Frequency	
In the last 2 weeks have you regularly taken any tablets or medicines?	38	97%
01=Sleeping	11	28%
02=To keep you calm	10	26%
03=Water	1	3%
04=Blood Pressure	2	5%
05=Heart	1	3%
06=Infection	0	0%
07=Depression	12	31%
08=Pain Relief	6	15%
09=Diabetes	1	3%
10=Asthma	0	0%
11=Contraception	0	0%
12=Hormones	1	3%
13=Stress	5	13%
14=Anxiety	15	38%
15=Mental Health Problem	32	82%
16=Something else	8	21%

Figure 33 Medication Usage

In order of Frequency:

Medication Usage	Frequency	
15=Mental Health Problem	32	82%
14=Anxiety	15	38%
07=Depression	12	31%
01=Sleeping	11	28%
02=To keep you calm	10	26%
16=Something else	8	21%
08=Pain Relief	6	15%
13=Stress	5	13%
04=Blood Pressure	2	5%
03=Water	1	3%
05=Heart	1	3%
09=Diabetes	1	3%
12=Hormones	1	3%
06=Infection	0	0%
10=Asthma	0	0%
11=Contraception	0	0%

Figure 34 Medication Usage Sorted by Frequency

6.7 Professionals Consulted in 12 months prior to admission or prison:

Seventy four percent (74%) (n=29) of patients had contact with their GP prior to admission and more significantly, well over half had contact with a psychiatrist sixty four percent (64%) (n=25) and or a mental health team fifty six percent (56%) (n=22). Four other professionals (n=4) were identified under other including parole officer, carers, psychotherapist, and podiatrist. The frequency of seeing GP's was on average 11 times in the year, whilst it was 12 times for a psychiatrist. The range of data meant that this information demonstrates the high frequency of involvement of professionals prior to offences being committed, for example the GP visits ranged from 0 to 100 and Psychiatrist between 0 and 40. The median was 4 for GP visits and 10 for psychiatrists. The data does indicate however, that patients had a number of contacts with mental health services and a GP prior to their offence. A number of patients expressed that they had sought help prior to their offence; some individuals even had inpatient admissions. Considering 56% of patients had been seen by a mental health team in the 12 month leading to their offence indicates possible failures in the mental health system. There are many reasons why ongoing service contact issues can occur such as patient's moving, becoming itinerant, or evading service provider contact (Shiple & Tempelmeyer 2012).

How often Professionals consulted prior to offence

Professionals seen 12 months prior to admission	Frequency	
General Practitioner	29	74%
Radiologist or have x-rays	11	28%
Pathologists or have blood tests	9	23%
Physician or other medical specialists	4	10%
Surgical specialist or gynaecologist	0	0%
Psychiatrist	25	64%
Psychologist	10	26%
Social Worker or welfare worker	18	46%
Drug and alcohol counsellor	8	21%
Other counsellor	1	3%
Nurse	20	51%
Mental Health Team	22	56%
Chemist for professional advice	6	15%
Ambulance Officer	6	15%
Other Health professional	4	10%

Figure 35 Service Usage Prior to Admission

Seventy four percent (74%) of patients had seen their GP and sixty four (64%) a psychiatrist indicating a high percentage of patients had consulted health professionals, particularly a mental health professional in the year before their offence. Although the data indicates that at least 50% had seen a professional in the 12 months prior to the offence, it is possible that their symptoms remained hidden from the practitioners. A number of patients talked about how they had continued their jobs or hid the symptoms from their relatives, even though they had severe mental health symptoms.

In order of frequency – sorted into highest selected:

Professionals seen 12 months prior to admission	Frequency	
General Practitioner	29	74%
Psychiatrist	25	64%
Mental Health Team	22	56%
Nurse	20	51%
Social Worker or welfare worker	18	46%
Radiologist or have x-rays	11	28%
Psychologist	10	26%
Pathologists or have blood tests	9	23%
Drug and alcohol counsellor	8	21%
Chemist for professional advice	6	15%
Ambulance Officer	6	15%
Physician or other medical specialists	4	10%
Other Health professional	4	10%
Other counsellor	1	3%
Surgical specialist or gynaecologist	0	0%

Figure 36 Service Usage Prior to Admission Sorted

6.8 Height and Weight

The median height for men was 174 cm and for women 173 cm. The range was 152 cm to 200 cm. The median weight for men was 90 kg and for woman 68 kg. The range was 49 kg to 150 kg. Over half of the patients 51% (n=20) identified that they considered themselves to be overweight. 46% (n=18) patients were over 90 kg, and 33% (n=13) over 100 kg. A major issue for the service was how many patients were overweight; 74% (n=29) had a BMI over 25, and 46% (n=18) fell into the obese range with a BMI above 30. Only 2 patients had a BMI above 40 (morbidly obese range).

6.9 Smoking

A massive 90% (n=35) of the patients identified that they had smoked at least 100 cigarettes in their lives. Whilst 79% (n=31) continued to smoke. Sixty nine percent (69%) (n=27) patients identified that they had smoked prior to the age of 16 with a range of 'starting to smoke' between the ages of 8 and 30 years. The median amount of cigarettes smoked per day was 20 cigarettes, with a range of 5 to 50 cigarettes per day.

6.10 Alcohol Consumption (Alcohol Use Disorders Identification Test)

Alcohol use was assessed using an internationally developed tool by the World Health Organisation "**Alcohol Use Disorders Identification Test**" (Conigrave, Hall & Saunders 1995; Saunders et al. 1993). Alcohol was surprisingly not a big issue, or consumption levels were low for a number of patients. For example (n=28 of 39) 78% drank more than 6 drinks only once per month or less, indicating a relatively low incidence of alcohol abuse. A number of patients did state that alcohol had been responsible for them causing injury to someone else 23% (n=9), however, only 5% (n=2) of those incidents had occurred in the last year, as some patients were referring to their distant past. Some patients having been incarcerated for many years so were referring to when they were teenagers. The questionnaire for this specific question (Q9) does not specify a date or year. The CIDI results identified a similar frequency for alcohol dependence and problematic alcohol use with 44% (n=17) of the sample meeting or partially meeting the criterion for alcohol abuse. Thirty eight percent (38%) (n=15) actually meeting the CIDI criterion for alcohol dependence. When compared to the high frequency of illicit substance use, alcohol seemed to be abused by fewer patients at a rate of 31% (n=12), whilst 46% (n=18) were indicated to have some potential drinking problems.

AUDIT RESULTS	All	Female	Male
Hazardous Drinking	18	3	15
Cut-off Score >=8	46%	8%	38%
Problem Drinking	12	2	10
Cut-off Score >=12	31%	5%	26%

Alcohol Consumption – AUDIT Responses in detail

Frequency of Consumption		Never	Monthly	Weekly	2-4 week	5 or more
1	How often did you have a drink containing alcohol?	2 5%	13 33%	10 26%	8 21%	6 15%
Amount of drinks on a typical day		1	2	3-4	5-6	7 or more
2	How many standard drinks did you have on a typical day when you were drinking?	6 15%	3 8%	11 28%	9 23%	10 26%
Issues with Drinking		Never	Less than monthly	monthly	weekly	daily
3	How often did you have 6 or more standard drinks on one occasion?	8 21%	14 36%	8 21%	4 10%	5 13%
4	How often during the year before admission have you found that you were unable to stop drinking once you had started (or prior to prison)?	28 72%	5 13%	1 3%	1 3%	4 10%
5	How often during the year before admission have you failed to do what was normally expected from you because of your drinking?	28 72%	7 18%	0 0%	4 10%	0 0%
6	How often in the year before admission have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session?	34 87%	1 3%	1 3%	2 5%	1 3%
7	How often in the year before admission have you had a feeling of guilt or regret after drinking?	28 72%	8 21%	0 0%	3 8%	0 0%
8	How often in the year before admission have you been unable to remember what happened the night before because of you had been drinking?	22 56%	11 28%	2 5%	3 8%	1 3%
Major Drinking Problems		No	Yes, Not in last year	Yes, in the last year		
9	Have you or someone else been injured as a result of your drinking?	28 72%	9 23%	2 5%		
10	Has a friend, doctor or other health worker been concerned about your drinking or suggested you cut down?	24 62%	9 23%	6 15%		

Figure 37 Alcohol Consumption – Frequency

6.11 Quality of Life (SF12)

A high number of patients 79% (n=31) indicated that their physical health had not impeded them in the last 4 weeks, demonstrating the majority felt well.

General Health

1	In general, would you say your health is?	Excellent	Very Good	Good	Fair	Poor
		2	8	14	10	5
		5%	21%	36%	26%	13%

Limitations:		Yes - a lot	Yes - a little	No
2	Does your health now limit you in undertaking moderate activities such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?	7	5	27
		18%	13%	69%
3	What about climbing several flights of stairs?	4	9	26
		10%	23%	67%

Health Problems in the last 4 weeks		No	Yes
4	During the past 4 weeks have you accomplished less than you would like with your work or other regular daily activities as a result of your physical health?	26	13
		67%	33%
5	During the past 4 weeks were you limited in the kind of work or other activities you do as a result of your physical health?	31	8
		79%	21%
6	During the past 4 weeks have you accomplished less than you would like with your chores or other regular daily activities as a result of any emotional problems such as feeling depressed or anxious?	21	18
		54%	46%
7	During the past 4 weeks did you not do work or other activities as carefully as usual as a result of any emotional problems, such as feeling depressed or anxious?	25	14
		64%	36%

Patients expressed problems more for emotional problems that they did for physical problems.

		Not at all	Little bit	Moderately	Quite a bit	Extremely
8	During the past 4 weeks how much did pain interfere with your normal chores / work (including both activities outside the ward and housework)?	20	9	5	3	2
		51%	23%	13%	8%	5%

Difficulty with Accomplishments in the last 4 weeks		All of the time	Most of the time	A good bit of the time	Some of the time	little of the time	None of the time
9	How much time during the past 4 weeks have you felt calm and peaceful?	4	13	8	6	7	1
		10%	33%	21%	15%	18%	3%
10	How much time during the past 4 weeks did you have a lot of energy?	2	6	6	12	7	6
		5%	15%	15%	31%	18%	15%
11	How much time during the past 4 weeks have you felt downhearted and blue?	4	5	4	9	10	7
		10%	13%	10%	23%	26%	18%
12	During the past 4 weeks how much of the time has your physical health or emotional problems interfered with your social activities.	3	5	6	7	18	0
		8%	13%	15%	18%	46%	0%

Figure 38 SF-12

6.12 Part D Quality of Life Survey – Sphere 34

It is notable how many of the physical health issues were reported as ‘Never or some of the time’. “Waking up tired”, “Needing to sleep longer”, and “Poor sleep” were reported by 18% (n=7) of patients in all of these three areas as ‘Most of the time’ (n=7). Both “Poor Memory” and “Feeling unhappy and depressed” were reported by 15% of the patients for ‘Most of the time’ (n=6).

		Never of Some of the Time		A good part of the time		Most of the time	
1	Headaches	31	79%	6	15%	2	5%
2	Feeling irritable or cranky	30	77%	6	15%	3	8%
3	Poor memory	26	67%	7	18%	6	15%
4	Pains in your arms or legs	28	72%	9	23%	2	5%
5	Feeling nervous or tense	28	72%	7	18%	4	10%
6	Muscle pain after activity	31	79%	3	8%	5	13%
7	Waking up tired	24	62%	8	21%	7	18%
8	Rapidly changing moods	31	79%	4	10%	4	10%
9	Fainting Spells	37	95%	2	5%	0	0%
10	Nausea	35	90%	2	5%	2	5%
11	Arms or legs feeling heavy	33	85%	4	10%	2	5%
12	Feeling unhappy and depressed	23	59%	10	26%	6	15%
13	Gas or bloating	31	79%	4	10%	4	10%
14	Fevers	37	95%	2	5%	0	0%
15	Back pain	28	72%	7	18%	4	10%
16	Needing to sleep longer	24	62%	8	21%	7	18%
17	Prolonged tiredness after activity	34	87%	3	8%	2	5%
18	Sore throats	37	95%	2	5%	0	0%
19	Numb or tingling sensation	34	87%	3	8%	2	5%
20	Feeling constantly under strain	27	69%	4	10%	8	21%
21	Joint pains	31	79%	4	10%	4	10%
22	Weak muscles	30	77%	4	10%	5	13%
23	Feeling frustrated	25	64%	9	23%	5	13%
24	Diarrhoea or constipation	33	85%	2	5%	4	10%
25	Poor sleep	25	64%	7	18%	7	18%
26	Getting annoyed easily	29	74%	7	18%	3	8%
27	Everything getting on top of you	29	74%	6	15%	4	10%
28	Dizziness	35	90%	3	8%	1	3%
29	Feeling tired after rest or relaxation	35	90%	4	10%	0	0%
30	Poor concentration	25	64%	9	23%	5	13%
31	Tired muscles after activity	27	69%	7	18%	5	13%
32	Feeling lost for words	29	74%	6	15%	4	10%
33	Losing confidence	30	77%	4	10%	5	13%
34	Being unable to overcome difficulties	30	77%	7	18%	2	5%

Figure 39 SPHERE 34

If we combine the positive results, and put them in order of highest complaints first, it becomes clear which the most significant issues for the population were – feeling unhappy and depressed affected 41% of patients. However again such symptoms are closely related to the DSMIV-TR diagnosis of PTSD, but they are also related to a variety of mental disorders and side effects of medications.

Memory, sleep and concentration again feature as key issues. This should be considered when planning the patient's day, and the ensuing treatment. The need to sleep longer may not fit in with hospital routines and an inability to remember things, or having poor concentration may be perceived as a lack of cooperation or other negative behaviours.

Question Number	Combined Results for 'A good part of the time' & 'Most of the time'		
12	Feeling unhappy and depressed	16	41%
7	Waking up tired	15	38%
16	Needing to sleep longer	15	38%
23	Feeling frustrated	14	36%
25	Poor sleep	14	36%
30	Poor concentration	14	36%
3	Poor memory	13	33%
20	Feeling constantly under strain	12	31%
31	Tired muscles after activity	12	31%
4	Pains in your arms or legs	11	28%
5	Feeling nervous or tense	11	28%
15	Back pain	11	28%
26	Getting annoyed easily	10	26%
27	Everything getting on top of you	10	26%
32	Feeling lost for words	10	26%
2	Feeling irritable or cranky	9	23%
22	Weak muscles	9	23%
33	Losing confidence	9	23%
34	Being unable to overcome difficulties	9	23%
1	Headaches	8	21%
6	Muscle pain after activity	8	21%
8	Rapidly changing moods	8	21%
13	Gas or bloating	8	21%
21	Joint pains	8	21%
11	Arms or legs feeling heavy	6	15%
24	Diarrhoea or constipation	6	15%
17	Prolonged tiredness after activity	5	13%
19	Numb or tingling sensation	5	13%
10	Nausea	4	10%
28	Dizziness	4	10%
29	Feeling tired after rest or relaxation	4	10%
9	Fainting Spells	2	5%
14	Fevers	2	5%
18	Sore throats	2	5%

Figure 40 SPHERE 34 Sorted by Frequency

6.13 Part E – Energy Levels

Over half the patients felt they had less energy than others of their own age. Of those patients that expressed they were currently experiencing severe fatigue 7 of the 11 patients stated their fatigue improved with rest.

Energy		No		Yes	
1	I believe I am more tired or have less energy compared to other people my age	19	49%	20	51%
2	I currently have severe fatigue, extreme tiredness, or exhaustion.	28	72%	11	28%

Figure 41 Energy Levels

6.14 Section 3: Emotional Health CES-D

The average score for the CES-D was 20 with a Median Score of 18. The average male score however was 18 with a median score of 15, and the average female score was 28 and the median score was 37 indicating that female patients were more like to have issues with depression than males. Considering the current context of all patients it is surprising that 44% (n=17) stated they were happy occasionally or most of the time. At the same time 38% (n=15) of patients felt depressed occasionally or most of the time.

Emotional Health CES-D page 19		Rarely & Sometimes		Occasionally & Mostly	
12	I was happy	22	56%	17	44%
6	I felt depressed	24	62%	15	38%
14	I felt lonely.	24	62%	15	38%
16	I enjoyed life.	24	62%	15	38%
4	I felt I was just as good as other people	25	64%	14	36%
8	I felt hopeful about the future.	25	64%	14	36%
9	I thought my life had been a failure.	25	64%	14	36%
10	I felt fearful.	25	64%	14	36%
11	My sleep was restless	25	64%	14	36%
18	I felt sad.	25	64%	14	36%
5	I had trouble keeping my mind on what I was doing	26	67%	13	33%
3	I felt that I could not shake off the blues even with help from my family or friends.	29	74%	10	26%
7	I felt that everything I did was an effort.	29	74%	10	26%
13	I talked less than usual.	29	74%	10	26%
2	I did not feel like eating; my appetite was poor.	30	77%	9	23%
19	I felt that people dislike me.	32	82%	7	18%
20	I could not get 'going'.	32	82%	7	18%
15	People were unfriendly	33	85%	6	15%
17	I had crying spells	33	85%	6	15%
1	I was bothered by things that usually don't bother me.	36	92%	3	8%

Figure 42 CES-D Questions Prioritised by 'Mostly'

6.15 Part 3B Suicidality

Over half 56% (n=22) of patients had made some form of suicide attempt in their lifetimes and 21% had thought of suicide in the past month. This highlights the high risks that are managed every day in forensic environments.

Suicidality		Yes	
1	In the past month did you think you would be better off dead or wish you were dead?	11	28%
2	In the past month did you want to harm yourself?	3	8%
3	In the past month did you think about suicide?	8	21%
4	In the past month did you have a suicide plan?	1	3%
5	In the past month did you attempt suicide?	0	0%
6	In your lifetime did you ever make a suicide attempt?	22	56%

Figure 43 Suicidality

6.16 Part 3C Dissociation

Q	Dissociation	Never or rarely		Sometimes, mostly, often and always combined result	
1	I find myself doing things without knowing why.	25	64%	14	36%
2	I cannot get angry about the things that should annoy me.	18	46%	21	54%
3	I do many things that I regret afterwards.	16	41%	23	59%
4	I feel that I am more than one person.	28	72%	11	28%
5	I feel as if other people live in a different world.	26	67%	13	33%
6	I feel that my mind is divided	21	54%	18	46%
7	I can't understand why I get so cross and grouchy.	26	67%	13	33%
8	I feel distant from my own emotions.	22	56%	17	44%
9	I don't know how to stop myself from doing something.	23	59%	16	41%
10	I have problems remembering important details of stressful events.	13	33%	26	67%
11	I have conflicting desires.	19	49%	20	51%
12	I feel as though I am standing next to myself or watching myself do something and I actually see myself as if I were looking at another person.	25	64%	14	36%
13	I feel unable to think straight.	15	38%	24	62%
14	I feel emotionally numb (e.g. Feel sad but can't cry, unable to have loving feelings).	20	51%	19	49%
15	I feel that I am floating beside my body and watching it from outside.	31	79%	8	21%
16	I feel that my personality is split into distinct parts.	26	67%	13	33%
17	I find it difficult to feel real emotions, such as pain, happiness, sadness or anger.	22	56%	17	44%
18	I feel that other people, objects, and the world around me are not real.	25	64%	14	36%
19	I find it difficult to respond to others in a sympathetic way	26	67%	13	33%
20	Things seem to go by faster or slower than they really do.	17	44%	22	56%
21	I find myself dressed in clothes that I don't remember putting on.	37	95%	2	5%
22	I find myself in a place and have no idea how I got there.	31	79%	8	21%
23	I find new things among my belongings that I do not remember buying.	34	87%	5	13%
24	My moods can really change.	16	41%	23	59%
25	I find writings, drawings, or notes among my belongings that I must have done but cannot remember doing.	28	72%	11	28%
26	I have no memory for some important events in my life (for example, a wedding or graduation).	20	51%	19	49%
27	I live in a world of my own where no one can reach me.	25	64%	14	36%
28	I look at my watch and am surprised at the time it shows.	24	62%	15	38%
29	My memory for upsetting events is patchy.	17	44%	22	56%
30	I say things without meaning to.	14	36%	25	64%
31	I underestimate or overestimate the amount of time that has passed.	15	38%	24	62%
32	If something upsetting happens, I find it difficult to remember afterwards.	23	59%	16	41%
33	I feel like I don't belong.	18	46%	21	54%
34	The world seems unreal or strange.	22	56%	17	44%
35	I am able to ignore pain.	22	56%	17	44%
36	I feel that there are two of me.	27	69%	12	31%
37	I feel distant and cut off from others around.	17	44%	22	56%
38	I have difficulty concentrating.	8	21%	31	79%

Figure 44 The TDQ (Dissociation Questionnaire)

Frequency of positive symptom:

When placed in order of frequency it is clear which symptoms were most reported:

Question Number	Dissociation	Sometimes, mostly, often and always combined result	
38	I have difficulty concentrating.	31	79%
10	I have problems remembering important details of stressful events.	26	67%
30	I say things without meaning to.	25	64%
13	I feel unable to think straight.	24	62%
31	I underestimate or overestimate the amount of time that has passed.	24	62%
3	I do many things that I regret afterwards.	23	59%
24	My moods can really change.	23	59%
20	Things seem to go by faster or slower than they really do.	22	56%
29	My memory for upsetting events is patchy.	22	56%
37	I feel distant and cut off from others around.	22	56%
2	I cannot get angry about the things that should annoy me.	21	54%
33	I feel like I don't belong.	21	54%
11	I have conflicting desires.	20	51%
14	I feel emotionally numb (e.g. Feel sad but can't cry, unable to have loving feelings).	19	49%
26	I have no memory for some important events in my life (for example, a wedding or graduation).	19	49%
6	I feel that my mind is divided	18	46%
8	I feel distant from my own emotions.	17	44%
17	I find it difficult to feel real emotions, such as pain, happiness, sadness or anger.	17	44%
34	The world seems unreal or strange.	17	44%
35	I am able to ignore pain.	17	44%
9	I don't know how to stop myself from doing something.	16	41%
32	If something upsetting happens, I find it difficult to remember afterwards.	16	41%
28	I look at my watch and am surprised at the time it shows.	15	38%
1	I find myself doing things without knowing why.	14	36%
12	I feel as though I am standing next to myself or watching myself do something and I actually see myself as if I were looking at another person.	14	36%
18	I feel that other people, objects, and the world around me are not real.	14	36%
27	I live in a world of my own where no one can reach me.	14	36%
5	I feel as if other people live in a different world.	13	33%
7	I can't understand why I get so cross and grouchy.	13	33%
16	I feel that my personality is split into distinct parts.	13	33%
19	I find it difficult to respond to others in a sympathetic way	13	33%
36	I feel that there are two of me.	12	31%
4	I feel that I am more than one person.	11	28%
25	I find writings, drawings, or notes among my belongings that I must have done but cannot remember doing.	11	28%
15	I feel that I am floating beside my body and watching it from outside.	8	21%
22	I find myself in a place and have no idea how I got there.	8	21%
23	I find new things among my belongings that I do not remember buying.	5	13%
21	I find myself dressed in clothes that I don't remember putting on.	2	5%

Figure 45 The TDQ (Dissociation Questionnaire) Sorted

The average total score for the dissociation questionnaire was 49 with a Median Score of 46. The average male score however was 50 with a median score of 45, and the average female score was 48 and the median score was 50.

Sample mean	Sample Median	Median male	Averages Males	Median Females	Averages Females
49	46	45	50	50	48

6.17 Part 4 Family Beliefs

This questionnaire asks about the relationship between the child and mother, and then the same questions are asked about the father. The results are presented in the highest degree of positive answers first. The data is presented in the format of 'not true, and all of the positive answers of 'slightly true', 'moderately true, and 'extremely true' have been combined to provide a positive answer i.e. not true or true. The first 3 answers were selected by a high proportion of the group with the mother being 'overprotective', 'over controlling', and 'critical'.

The relationship with the father demonstrates a different picture to that of the mother, for example the mother was considered overprotective at a rate of 74% (n=29), whereas the father was considered overprotective at a much lower rate of 38% (n=15). Again the answers are presented with the most frequently selected positive answers. It would appear that the first 3 areas are opposite to that of the mother and paints a picture of abandonment rather than overprotection with the most frequent positive answers being 'left on my own a lot' 49% (n=19), 'was uninterested in me' 49% (n=19), and 'ignored me' 46% (n=18).

Q No.	Mothers Relationship	not true	positive answer	
1	My mother was overprotective of me.	10	29	74%
3	My mother was over-controlling of me.	18	21	54%
6	My mother was critical of me.	21	18	46%
7	My mother was unpredictable towards me.	24	15	38%
11	My mother left me on my own a lot.	24	15	38%
4	My mother sought to make me feel guilty	27	12	31%
5	My mother ignored me	27	12	31%
2	My mother was verbally abusive of me	28	11	28%
9	My mother was physically violent or abusive of me.	28	11	28%
12	My mother would forget about me.	30	9	23%
13	My mother was uninterested in me.	31	8	21%
14	My mother made me feel in danger.	31	8	21%
8	My mother was uncaring of me.	32	7	18%
10	My mother was rejecting of me.	32	7	18%
15	My mother made me feel unsafe.	32	7	18%

Figure 46 Family Beliefs – Relationship with Mother Sorted

Q No.	Relationship with Father	not true	positive answer	
11	My father left me on my own a lot.	20	19	49%
13	My father was uninterested in me.	20	19	49%
5	My father ignored me	21	18	46%
6	My father was critical of me.	21	18	46%
2	My father was verbally abusive of me	22	17	44%
3	My father was over-controlling of me.	23	16	41%
10	My father was rejecting of me.	23	16	41%
12	My father would forget about me.	23	16	41%
1	My father was overprotective of me.	24	15	38%
9	My father was physically violent or abusive of me	24	15	38%
7	My father was unpredictable towards me.	25	14	36%
14	My father made me feel in danger.	25	14	36%
4	My father sought to make me feel guilty	26	13	33%
8	My father was uncaring of me.	26	13	33%
15	My father made me feel unsafe.	28	11	28%

Figure 47 Family Beliefs – Relationship with Father Sorted

6.18 Part 4B World Assumptions

Many patients had a positive view of the world, with 77% (n=30) believing the world is a good place, human nature is basically good, and that people are generally kind and helpful. The first two most frequent answers were preventative 'I take actions necessary to protect myself against misfortune' at 85% (n=33) and 'I almost always make an effort to prevent bad things from happening to me' at 82% (n=32), which is not unreasonable for people who have spent a reasonable amount of time in prison or a forensic facility. A more detailed picture of how this tool is used can be seen in the case studies.

Q No.		disagree			agree		
		1	2	3	4	5	6
23	I take the actions necessary to protect myself against misfortune.	6			33		85%
17	I almost always make an effort to prevent bad things from happening to me.	7			32		82%
14	People will experience good fortune if they themselves are good.	8			31		79%
25	The world is a good place.	9			30		77%
27	I usually behave so as to bring about the greatest good for me.	9			30		77%
4	Human nature is basically good.	10			29		74%
20	Through our actions we can prevent bad things from happening to us.	10			29		74%
26	People are basically kind and helpful.	10			29		74%
22	If people took preventive actions, most misfortune could be avoided.	11			28		72%
30	If you look closely enough, you will see that the world is full of goodness.	11			28		72%
16	When I think about it, I consider myself very lucky.	12			27		69%
11	People's misfortunes result from mistakes they have made.	12			26		67%
10	I am basically a lucky person.	14			25		64%
19	By and large, good people get what they deserve in this world.	14			25		64%
32	I am luckier than most people.	14			25		64%
9	There is more good than evil in the world.	15			24		62%
13	I usually behave in ways that are likely to maximise good results for me.	15			24		62%
24	In general, life is mostly a gamble.	14			24		62%
28	I am very satisfied with the kind of person I am.	15			24		62%
5	The good things that happen in this world far outnumber the bad.	16			23		59%

12	People don't really care what happens to the next person.	15	23	59%
6	The course of our life is largely determined by chance.	16	22	56%
31	I have reason to be ashamed of my personal character.	16	22	56%
15	Life is too full of uncertainties that are determined by chance.	17	21	54%
18	I have a low opinion of myself	18	21	54%
21	Looking at my life, I realize that chance events have worked out well for me.	19	20	51%
3	Bad events are distributed to people at random.	20	19	49%
29	When bad things happen, it is typically because people have not taken the necessary actions to protect themselves.	20	19	49%
7	Generally, people get what they deserve in this world.	20	18	46%
1	Misfortune is least likely to strike worthy decent people.	22	17	44%
8	I often think I am no good at all.	22	17	44%
2	People are naturally unfriendly and unkind	23	16	41%

Figure 48 World Views Sorted by Scores

6.19 Part 5 Recent Life Events

The most frequent events selected were Police contact and court appearance 92% (n=36), a member of the family being seriously ill or injured 62% (n=24), and unemployment 56% (n=22). 62% (n=24) of all cases said that these issues still affected them. Twenty eight percent (28%) (n=11) patients in the question: “21. *Have you had any other significant event?*” Seventeen percent (17%) (n=7) of them identified the issue of their offence, recent arrest or custody as the key issue. The next most frequent answers were around family members being sick, then issues around being unemployed, having to move house, or having a serious illness.

order of question		Yes		Yes Still Affects Me	
14	Have you, or an immediate family member had any Police contact or been in a court appearance.	36	92%	24	62%
2	Has one your immediate family been seriously ill or injured?	24	62%	18	46%
11	Have you or your partner been unemployed or seeking work for more than one month (prior to admission)?	22	56%	13	33%
19	Have you moved house (not through choice)?	22	56%	13	33%
1	Have you had a serious illness or injury or been seriously injured?	18	46%	16	41%
3	Have any of your close friends or other close relatives been seriously ill or injured?	15	38%	6	15%
4	Have any of your immediate family died?	15	38%	10	26%
20	Have you had any housing difficulties?	15	38%	10	26%
13	Have you had any major financial difficulties (e.g. Debts, difficulty paying bills)?	13	33%	9	23%
5	Have any of your other close relatives or close friends died?	11	28%	5	13%
10	Have you or an immediate family member been subject to any other form of serious abuse, attack or threat?	11	28%	7	18%
21	Have you had any other significant event?	11	28%	9	23%
6	Have you separated from your partner (not including death)?	10	26%	6	15%
7	Have you had any serious problem with a close friend, neighbour or relative?	10	26%	3	8%
9	Have you or an immediate family member been subject to any abuse, attack, threat perhaps due to you or someone close to you having a disability of any kind (i.e. A mental health problem, a learning disability or a physical problem)?	8	21%	6	15%
18	Have you moved house (through choice)?	8	21%	2	5%
8	Have you, or an immediate family member been subject to serious racial abuse, attack or / threats?	5	13%	4	10%
15	Have you or an immediate member of your family been burgled or mugged?	4	10%	2	5%
12	Have you or your partner been sacked from your job or made redundant?	2	5%	2	5%
16	Have you or another individual who lives with you given birth?	2	5%	2	5%
17	Have you or another individual who lives suffered from a miscarriage or had a still birth?	2	5%	2	5%

Figure 49 Recent Life Events Sorted ‘Yes’

6.20 Part 6 Childhood Trauma

This part of the questionnaire is a lengthy and complex, yet extremely important. Therefore the different response types for the data will have to be presented in separate parts. The questionnaire also included varying answer modes from dichotomous '**Yes to No**' to '**Never, once or twice, a few times a year, many times a year, to weekly or more**'. Where there are multiple answers the positive and more severe responses will be combined i.e. '**many times a year**' + '**weekly or more**' will be combined to provide frequency of the more extreme problems (of violence or sexual abuse for example). The huge amount of 90% (n=35) of the sample had taken illicit drugs and 79% (n=31) of the sample had tried drugs from between 26-99 times, whilst 72% (n=28) patients had taken drugs more than 100 times. Fifty nine percent (59%) (n=23) of the full sample recognised that they had a problem with their use of illicit drugs, suggesting 31% thought their use was not an issue. Although 49% (n=19) of the sample thought they were addicted to illicit drugs. Over half of the sample 51% (n=20) had injected drugs. Drugs, particularly cannabis, are known to exacerbate illness such as schizophrenia. From the National Survey around 1 in 4 people with psychosis tended to screen positively for substance abuse (in particular cannabis abuse) or alcohol abuse problems (Degenhardt & Hall 2001). So in this forensic population at a ratio of 9 in 10 people, it would indicate the problem is much higher for this forensic client group. It would also suggest much needs to be done in this area of treatment, and that it should be a major focus for prevention.

Question	Yes
3 Have you ever used illicit drugs?(This includes marijuana)	35 90%
4 About how many times have you used illicit drugs? (*more that 25-100)	31 79%
9 Were your parents ever separated or divorced?	25 64%
5 Have you ever had a problem with your use of illicit drugs?	23 59%
13 Did you ever run away from home more than one day?	21 54%
7 Have you ever injected illicit drugs?	20 51%
6 Have you ever considered yourself to be addicted to illicit drugs?	19 49%
1 During the first 18 years of life..... Did you live with anyone who was a problem drinker or alcoholic?	18 46%
15 Was anyone in your household depressed or mentally ill?	18 46%
10 Did you ever live with a stepfather?	16 41%
8 Did you live with anyone who used illicit drugs?	13 33%
12 Did you ever live in a foster home?	12 31%
11 Did you ever live with a stepmother?	11 28%
17 Did anyone in your household ever go to prison?	11 28%
2 Have you ever been married to someone (or lived with someone as if you were married) who was a problem drinker or alcoholic?	10 26%
14 Did any of your brothers or sisters run away from home for more than one day?	9 23%
18 Did anyone in your household ever commit a serious crime?	8 21%
16 Did anyone in your household attempt to commit suicide?	6 15%

Figure 50 Childhood Trauma Questionnaire Sorted 'Yes'

6.21 Suicidality:

Over half 56% (n=22) of the sample had attempted to commit suicide at some point in their lives. 46% (n=18) of the sample had tried their first suicide attempt under the age of 25. Thirty one percent (31%) (n=12) of the whole sample being under the age of 18 at the time of attempting their first suicide. Twenty six percent (26%) (n=10) of the sample had attempted suicide over the age of 25, demonstrating an ongoing risk throughout the lifespan. Almost all of the attempts that were mentioned 73% (16 of the 22) resulted in an injury, poisoning or an overdose requiring treatment.

order of question		Yes	
16	Did anyone in your household attempt to commit suicide?	6	15%
19	Have you ever attempted to commit suicide?	22	56%
A	If Yes, how old were you the time you attempted suicide?	18	under 25
B	If Yes, how old were you the last time you attempted suicide?	10	over 25
C	How many times have you attempted suicide?	17	more than once
D	Did any suicide attempt ever result in an injury, poisoning or overdose that had to be treated by a doctor or nurse?	16	73%

Figure 51 Suicidality Frequency

6.22 Witnessing Violence and Experiencing Abuse

Patients were asked about witnessing violence toward their mother with the options of Never, once or twice, sometimes, often, very often. Seventy nine percent (79%) (n=31) expressed that there had been violence toward their mother and 59% (n=23) of those that had reported violence, were in the often or very often range. As the more serious types of assault were reported, for example kicking and biting – they were more frequently reported in the Often or Very Often range.

Question		Positive		Often and Very often combined	
20	Push, grab, slap or throw something at her?	31	79%	23	59%
21	Kick, bite, hit her with a fist, or hit her with something hard?	22	56%	18	46%
22	Repeatedly hit her over at least a few minutes?	18	46%	15	38%
23	Threaten her with a knife or gun or use a knife or gun to hurt her?	3	8%	3	8%

Figure 52 Experience of Violence toward Mother Frequency

Ninety two percent (92%) said that they had been hit, whereas 28% (n=11) of the whole sample expressed that they had been hit often or very often. Of the 27 that were hit 11 (41%) expressed that they had been hit quite hard or very hard. The average age when the patients last remember being hit was on average 13 for both genders, with a range from age 5 to 19, whilst some expressed that they had never been hit or they did not remember (n=3).

How often were you hit?

Question		Positive		Often and Very often combined	
24	How often were you hit?	36	92%	11	28%
25	How severely were you hit?	27	69%	11	41%
		male		female	
26	How old were you the last time you remember being hit?	13		13	

Figure 53 How Often Were You Hit Frequency

This table was prioritised in order of positive answers reported. Seemingly all the beneficial attributes gave the highest positive responses with almost the entire sample (90% to 97%) reporting a positive answer for all of the beneficial attributes. On the negative attributes 64% (n=25) reported that the family said hurtful things, 59% (n=23) felt emotionally abused and half the sample 51% (n=20) felt that someone in their family hated them. The previous table then, indicates that whilst over 90% felt loved and supported by their family, around 60% felt members of their family had been hurtful to them and they felt emotionally abused.

Q	Attitude of Family	Positive	Often and Very often combined
33	You felt loved.	38 97%	25 66%
38	People in your family felt close to each other.	37 95%	25 68%
40	There was someone to take you to the doctor if you needed it.	37 95%	32 86%
28	You knew there was someone to take care of you and protect you.	36 92%	28 78%
31	There was someone in your family who helped you feel important or special.	36 92%	23 64%
35	People in your family looked out for each other.	36 92%	29 81%
41	Your family was a source of strength and support.	35 90%	22 63%
37	People in your family said hurtful or insulting things to you.	25 64%	10 40%
39	You believe you were emotionally abused.	23 59%	10 43%
36	You felt that someone in your family hated you.	20 51%	10 50%
27	You didn't have enough to eat?	15 38%	6 40%
34	you thought your parents wished you had never been born.	15 38%	4 27%
29	People in your family called you things like 'lazy' or 'ugly'?	14 36%	5 36%
32	You had to wear dirty clothes.	13 33%	2 15%
30	Your parents were too drunk or high to take care of the family.	10 26%	5 50%

Figure 54 Attitude of Family Frequency

This chart is in order of the original questions as it is organised in terms of severity. In most cases over half of the sample had experienced aggression from family members, being sworn at or put down being the most frequent. Of those that gave positive answers, over a third of these expressed aggression in the 'Often or Very Often' range for all of the question. Possibly the most serious question was about being hit so hard that they were marked or injured and over half of the patients had experience this (n=22), whilst 32% that answered positively to this question had reported this in the 'Often and Very Often' range.

Aggression in Family

Question	Positive	Often and Very often combined
42 Swear at you, insult you, or put you down.	32 82%	11 34%
43 Threaten to hit you or throw something at you, but didn't do it?	29 74%	11 38%
44 Actually push, grab, shove, slap, or throw something at you?	23 59%	9 39%
45 Hit you so hard that you had marks or were injured?	22 56%	7 32%
46 Act in a way that made you afraid that you might be physically hurt?	24 62%	10 42%

Figure 55 Aggression in Family Frequency

6.23 Sexual Abuse

A surprisingly high number, almost half of the sample n=18 (46%), of patients had said they had some form of sexual contact with an adult whilst they were under the age of 18 years of age (this was divided into half of the males n=15 and half of the females n=3 suggesting that both genders were each as likely to be victims). One third of the sample reported actually having had sex with an adult before they were 18 years of age.

	Question	Yes		males	females
47	During the first 18yrs of life, did an adult or older relative, family friend or stranger ever touch or fondle your body in a sexual way?	18	46%	15	3
48	During the first 18yrs of life, did an adult or older relative, family friend or stranger ever have you touch their body in a sexual way?	11	28%	8	3
49	During the first 18yrs of life, did an adult or older relative, family friend or stranger ever attempt to have any type of sexual intercourse (oral, anal, or vaginal) with you?	14	36%	11	3
50	During the first 18yrs of life, did an adult or older relative, family friend or stranger ever actually have any type of sexual intercourse (oral, anal, or vaginal) with you?	13	33%	10	3
51	During the first 18yrs of life, did a child/teenager or group of children/teenagers about your own age ever force you or threaten you with harm in order to have sexual contact?	3	8%	3	0
52	As an adult (age 19 or older) did anyone ever force or threaten you with harm in order to have sexual contact.	3	8%	2	1

Figure 56 Sexual Abuse Frequency

6.24 Part 7 Impact of Event Scale

This question was asked specifically about the patient's offence or arrest. The answers have been placed in order of response frequency and it is clear that patients would avoid thinking about 82% (n=32), getting upset by 79% (n=31), or talking about 79% (n=31) their offence or arrest, resulting in any reminders bringing back feelings about it for 74% (n=29). A high proportion 69% (n=27) of patients expressed that pictures about it kept popping into their minds. Many of the symptoms reported were in the avoidance range and this is discussed later in the 'discussion'. Whilst we collude with patients to assist them with their avoidance of the offence, there is a need to work through the issues prior to discharge. To learn from the experience, and to prevent a similar event by learning new coping strategies if such circumstances were to reoccur.

Q Impact of Events Scale - Revised page51				
	During the past 7 days with respect to your offence (alleged) or arrest, how much were you distressed or bothered by these difficulties:	All combined	positives	Quite a bit or extremely positive % of
11	I tried not to think about it.	32	82%	11 34%
5	I avoided letting myself get upset when I thought about it or was reminded of it.	31	79%	10 32%
22	I tried not to talk about it.	31	79%	14 45%
1	Any reminders brought back feelings about it.	29	74%	12 41%
9	Pictures about it popped into my mind.	27	69%	12 44%
12	I was aware that I still had a lot of feelings about it, but I didn't deal with them.	27	69%	8 30%
13	My feelings about it were kind of numb.	27	69%	8 30%
17	I tried to remove it from my memory.	27	69%	8 30%
16	I had waves of strong feelings about it.	26	67%	9 35%
8	I stayed away from reminders about it.	25	64%	10 40%
18	I had trouble concentrating.	25	64%	7 28%
15	I had trouble falling asleep.	23	59%	7 30%
3	Other things kept making me think about it.	22	56%	9 41%
7	I felt as if it hadn't happened or wasn't real.	22	56%	13 59%
6	I thought about it when I didn't mean to.	21	54%	8 38%
4	I felt irritable and angry	19	49%	3 16%
10	I was jumpy and easily startled.	18	46%	5 28%
21	I felt watchful and on guard.	17	44%	6 35%
2	I had trouble staying asleep.	16	41%	9 56%
14	I found myself acting or feeling like I was back at that time.	15	38%	5 33%
19	Reminders of it caused me to have physical reactions such as sweating, trouble breathing, nausea, or a pounding heart.	13	33%	6 46%
20	I had dreams about it.	12	31%	5 42%

Figure 57 Impact of Event Scale Frequency

6.25 Current Family Contact

More people were in contact with their mother than their father, even though both relatives were still alive at a similar frequency. Seventy nine percent (79%) (n=31) and 77% (n=30) Patients said yes to their mother and father being alive respectively, yet only 46% (n=18) were still in contact with their father, whilst 67% (n=26) were still in contact with their mother. In the family beliefs questionnaire, the father figure tended to receive higher scores for the negative criterion. A high number of patients continued to have contact with their other relatives 79% (n=31). It is important to provide the family with opportunities of contact such as telephone and visit times. The family often see themselves as victims of the event, in that their life has been affected in some way.

Question	Yes	%
Is your father still alive?	30	77%
Are you still in contact with your father?	18	46%
Is your mother still alive?	31	79%
Are you still in contact with your mother?	26	67%
Do you have contact with any other immediate family members (brothers & sisters)?	31	79%

Figure 58 Family Contact Frequency

6.26 Past Feelings And Acts of Violence Questionnaire (PFAV)

Seventy four percent (74%) (n=29) of the sample identified a positive score for still feeling angry at people, having used a weapon in the past, and had been arrested for a violent crime. Seventy two percent (72%) (n=28) had positive scores for having attacked someone who was not a member of their family. The above information essentially captures the admission criterion for the unit in that the patient would have committed an emotional form of crime that has involved a violent crime, frequently involving a weapon. It is notable that 72% (n=28) are not family members, and that 67% (n=26) have caused injury to someone.

Question Number	Question	All Positive	%	women	% of women (n=7)	men	% of men (n=32)
2	How often do you feel very angry at people?	29	74%	5	71%	24	75%
8	Have you ever used a weapon to try to harm someone?	29	74%	5	71%	24	75%
11	Have you ever been arrested for a violent crime such as armed robbery or assault?	29	74%	5	71%	24	75%
7	Have you ever hit or attacked someone who is not a member of your family?	28	72%	2	29%	26	81%
5	Have you ever caused injury in a fight (for example, bruises, bleeding or broken bones)?	26	67%	5	71%	21	66%
10	How often have you been arrested for a non-violent crime such as shoplifting?	24	62%	1	14%	23	72%
1	Do you find that you get angry very easily?	22	56%	4	57%	18	56%
6	Have you ever hit or attacked a member of your family?	20	51%	5	71%	15	47%
9	Are weapons easily accessible to you?	20	51%	2	29%	18	56%
3	Do you find that you get angry for no reason at all?	12	31%	2	29%	10	31%
4	When angry, do you get a weapon	12	31%	1	14%	11	34%
12	Do you keep weapons in your home that you know how to use?	10	26%	1	14%	9	28%

Figure 59 Past Feelings and Violence Questionnaire Sorted Frequency

patient

6.27 Aggression Questionnaire

- Physical Aggression = mean 23 (sample range 10-45) (9 questions max 45)
- Verbal Aggression = mean 13 (sample range 6-21) (5 questions max 25)
- Anger = mean 16 (sample range 7-33) (7 questions max 35)
- Hostility = mean 20 (sample range (9-33) (8 questions max 40)

The mean score in the general population would be around 78 (SD 16.5) for males and 62 (SD 17) for females, scores greater than this would infer patients had a tendency toward expression of aggression. There were 16 patients with scores greater than 78, none of these being female. There were 2 female patients who had a score of greater than 62. There were 9 patients with scores above 90 and statistically this was a sensitive score for aggression within the unit for this sample. There were 3 patients with scores above 100 and all of these had expressed that they enjoyed the idea of violence and even fantasised about it. All three had the offences of attempted homicide: Two of these through stabbing and 1 running over someone with a motor vehicle and then reversing back over them. 1 of these patients stated that he used to go into hotels (pubs) just to pick a fight with someone. Whilst another indicated that he would masturbate over his fantasies of harming others. An example was that he would knock on someone's door and throw fuel on them, or bury someone alive, whilst urinating down their only source of air, or tying someone up and cutting / burning them. The majority of patients (n=26) had scores less than 78 and over a third (n=15) had scores less than 60, demonstrating that the majority of patients had a low expression of aggression.

Q	Question	Somewhat or Extremely Characteristic	%	women	% of women (n=7)	men	% of men (n=32)
29	I am an even tempered person.	32	82%	7	100%	25	78%
2	I tell my friends openly when I disagree with them.	22	56%	2	29%	20	63%
17	If I have to resort to violence to protect my rights, I will.	18	46%	1	14%	17	53%
9	If somebody hits me, I hit back.	17	44%	2	29%	15	47%
3	I flare up quickly but get over it quickly	16	41%	0	0%	16	50%
7	When frustrated, I let my irritation show.	16	41%	2	29%	14	44%
21	There are people who pushed me so far that we came to blows.	16	41%	0	0%	16	50%
23	I am suspicious of overly friendly strangers.	16	41%	2	29%	14	44%
10	When people annoy me, I may tell them what I think of them.	15	38%	2	29%	13	41%
24	I can think of no good reason for ever hitting a person.	15	38%	5	71%	10	31%
27	When people are especially nice, I wonder what they want.	15	38%	3	43%	12	38%
28	I have become so mad that I have broken things.	13	33%	1	14%	12	38%
5	Given enough provocation, I may hit another person.	12	31%	0	0%	12	38%
8	At times I feel I have gotten a raw deal out of life.	12	31%	2	29%	10	31%
12	Other people always seem to get the breaks.	12	31%	1	14%	11	34%
20	I know that 'friends' talk about me behind my back.	12	31%	0	0%	12	38%
11	I sometimes feel like a powder keg ready to explode.	10	26%	1	14%	9	28%
6	I often find myself disagreeing with people.	9	23%	1	14%	8	25%
13	I get into fights a little more than the average person.	9	23%	0	0%	9	28%
16	I wonder why sometimes I feel so bitter about things.	9	23%	1	14%	8	25%
25	I can sometimes feel that people are laughing behind my back.	8	21%	1	14%	7	22%
15	Some of my friends think I am a hothead.	7	18%	0	0%	7	22%
18	My friends say that I am somewhat argumentative.	7	18%	1	14%	6	19%
19	Sometimes I fly off the handle for no good reason.	7	18%	1	14%	6	19%
22	I have trouble controlling my temper.	6	15%	0	0%	6	19%
26	I have threatened people I know.	6	15%	0	0%	6	19%
14	I can't help getting into argument when people disagree with me.	5	13%	0	0%	5	16%
4	I am sometimes eaten up with jealousy.	4	10%	0	0%	4	13%
1	Once in a while I can't control the urge to strike another person.	3	8%	0	0%	3	9%

Figure 60 Aggression Questionnaire Buss & Perry by Frequency

There are four factors in this questionnaire; the means and range of the results were as follows:

physical aggress							
Sample mean	Sample Median	Median male	Averages Males	Median Females	Averages Females	Minimum in Range	Maximum in Range
23	23	24	25	13	15	10	45
verbal aggress							
Sample mean	Sample Median	Median male	Averages Males	Median Females	Averages Females	Minimum in Range	Maximum in Range
13	13	13	13	11	11	6	21
anger							
Sample mean	Sample Median	Median male	Averages Males	Median Females	Averages Females	Minimum in Range	Maximum in Range
16	15	17	17	12	11	7	33
hostility							
Sample mean	Sample Median	Median male	Averages Males	Median Females	Averages Females	Minimum in Range	Maximum in Range
20	21	23	21	20	17	9	33
Totals:							
Sample mean	Sample Median	Median male	Averages Males	Median Females	Averages Females	Minimum in Range	Maximum in Range
72	75	78	76	53	55	39	126

Figure 61 Buss Perry (1992) Sample Means – Studied Sample

Compare these results to the Buss Perry (1992) Questionnaire. Interestingly they are similar to the student cohort tested in the original study.

Scale	Physical	Verbal	Anger	Hostility	Total score
Men (n=612)	24.3	15.2	17	21.3	77.8
SD	7.7	3.9	5.6	5.5	16.5
Women (n=641)	17.9	13.5	16.7	20.2	68.2
SD	6.6	3.9	5.8	6.3	17

6.28 CIDI (Composite International Diagnostic Interview)

When compared with other disorders PTSD 31% (n=12) was the highest frequency disorder out of all disorders analysed, even higher than specific psychotic disorders such as schizo-affective disorder 8% (n=3) or depression 8% (n=3). However, when similar anxiety, psychotic, and depressive disorders are combined the cumulative picture is as follows: Anxiety type disorders 85% (n=33) is the highest frequency disorder, psychotic type disorders 36% (n=14) or depression 51% (n=20). These results are formed by combining similar diagnosis such as Schizophrenia and Schizoaffective disorder etc. See tables below for further information (see charts on next page).

The CIDI DSM Diagnosis was met for the following Disorders and are in order of frequency:

DSMIV Code	DSMIV-TR Diagnosis	All	%	Male	%	Female	%
305.1	Nicotine Dependence	19	49%	17	44%	2	5%
303.9	Alcohol Dependence	15	38%	12	31%	3	8%
304.3	Cannabis Dependence	15	38%	13	33%	2	5%
309.81	PTSD	12	31%	8	21%	4	10%
305.2	Cannabis Abuse	8	21%	7	18%	1	3%
300.3	Obsessive Compulsive Disorder	7	18%	5	13%	2	5%
304.1	Sedative Dependence	7	18%	7	18%	0	0%
300.23	Social Phobia	6	15%	6	15%	0	0%
304	Opioid Dependence	6	15%	5	13%	1	3%
304.4	Amphetamine Dependence	6	15%	6	15%	0	0%
305	Alcohol Abuse	5	13%	5	13%	0	0%
296.42	Bipolar 1 Manic Moderate	4	10%	3	8%	1	3%
305.5	Opioid Abuse	4	10%	4	10%	0	0%
295.7	Schizoaffective Disorder	3	8%	3	8%	0	0%
296.21	Major depressive disorder Mild Single	3	8%	3	8%	0	0%
296.22	Major depressive disorder Moderate Single	3	8%	0	0%	3	8%
296.41	Bipolar 1 Manic Mild	3	8%	2	5%	1	3%
296.43	Bipolar 1 Manic Severe	3	8%	3	8%	0	0%
300.11	Conversion Disorder	3	8%	2	5%	1	3%
300.29B	Specific Phobia Blood - Injections	3	8%	2	5%	1	3%
304.90o	Phencyclidine Dependence	3	8%	3	8%	0	0%
305.3	Hallucinogen Abuse	3	8%	2	5%	1	3%
295.4	Shizophreniform Disorder	2	5%	2	5%	0	0%
296.23	Major depressive disorder Severe Single WPF	2	5%	2	5%	0	0%
296.31	Major depressive disorder Mild Recurrent	2	5%	2	5%	0	0%
296.33	Major depressive disorder Severe Recurrent WPF	2	5%	1	3%	1	3%
304.5	Hallucinogen Dependence	2	5%	2	5%	0	0%
305.4	Sedative Abuse	2	5%	1	3%	1	3%
305.7	Amphetamine Abuse	2	5%	2	5%	0	0%
305.90i	Inhalant Abuse	2	5%	2	5%	0	0%
307.51	Bulimia Nervosa	2	5%	1	3%	1	3%
295	Schizophrenia	1	3%	1	3%	0	0%
296.03	Bipolar 1 Single Severe	1	3%	1	3%	0	0%
296.32	Major depressive disorder Moderate Recurrent	1	3%	1	3%	0	0%
298.8	Brief Psychotic Episode	1	3%	1	3%	0	0%
300.01	Panic Disorder without Agoraphobia	1	3%	1	3%	0	0%
300.4	Dysthymic Disorder	1	3%	1	3%	0	0%
300.29A	Specific Phobia Animal Type	1	3%	1	3%	0	0%
300.29N	Specific Phobia Environment type	1	3%	1	3%	0	0%
300.81	Somatisation Disorder	1	3%	1	3%	0	0%
305.6	Cocaine Abuse	1	3%	1	3%	0	0%

The Following CIDI table is for diagnoses that were partially met

DSMIV Code	DSMIV-TR Diagnosis	All	%	Male	%	Female	%
305.2	Cannabis Abuse	16	41%	14	36%	2	5%
305	Alcohol Abuse	12	31%	10	26%	2	5%
295	Schizophrenia	7	18%	5	13%	2	5%
300.4	Dysthymic Disorder	6	15%	4	10%	2	5%
305.4	Sedative Abuse	6	15%	6	15%	0	0%
305.5	Opioid Abuse	5	13%	4	10%	1	3%
305.7	Amphetamine Abuse	5	13%	5	13%	0	0%
300.01	Panic Disorder without Agoraphobia	4	10%	2	5%	2	5%
300.21	Panic Disorder with Agoraphobia	4	10%	4	10%	0	0%
305.90o	Other Substance Abuse	4	10%	4	10%	0	0%
300.29B	Specific Phobia Blood - Injections	3	8%	3	8%	0	0%
300.29S	Specific Phobia - Situational Type	2	5%	2	5%	0	0%
305.3	Hallucinogen Abuse	2	5%	2	5%	0	0%
307.8x	Pain Disorder	2	5%	1	3%	1	3%
300.4	Dysthymic Disorder	1	3%	0	0%	1	3%
300.11	Conversion Disorder	1	3%	1	3%	0	0%
300.22	Agoraphobia without Panic Disorder	1	3%	1	3%	0	0%
300.29N	Specific Phobia Environment Type	1	3%	1	3%	0	0%

Cumulative CIDI Data – Met and Partial Met Combined

Various Diagnosis, Met and Partial scores combined:

(NB: note some may have multiple anxieties and phobias, hence high %)

DSMIV Code	DSMIV-TR Diagnosis	All	%	Male	%	Female	%
296 /300	Depressive / Dysthymic Disorders	20	51%	14	36%	6	15%
300.22/23/29	Phobic Disorders	18	46%	17	44%	1	3%
300.1/11/21/81 and 307.51	Anxiety Disorders	15	38%	11	28%	4	10%
295/298	Psychotic Disorders (schizo - type)	14	36%	12	31%	2	5%
309.81	PTSD	12	31%	8	21%	4	10%
296.3/41/42/43	Bipolar Disorders	10	26%	9	23%	2	5%
300.3	Obsessive Compulsive Disorder	7	18%	5	13%	2	5%
305.90i	Pain Disorder	2	5%	1	3%	1	3%

The scores for cannabis abuse are significantly high for this population at a rate of 62%, identifying it as a major risk factor for forensic populations. The rate of alcohol abuse is higher than was identified in the AUDIT questionnaire. Almost half of the patients at 44% (n=15) were identified as having an alcohol abuse problem. Amphetamine and Sedative abuse are the next two significant drugs of abuse, leaving opioids at a low level of only 10% (n=4) of the studied population.

Alcohol and Illicit substance use

DSMIV Code	DSMIV-TR Diagnosis	All	%	Male	%	Female	%
305.2	Cannabis Abuse	24	62%	21	54%	3	8%
305	Alcohol Abuse	17	44%	15	38%	2	5%
305.4	Sedative Abuse	8	21%	7	18%	1	3%
305.7	Amphetamine Abuse	7	18%	7	18%	0	0%
305.3	Hallucinogen Abuse	5	13%	4	10%	1	3%
305.5	Opioid Abuse	4	10%	4	10%	0	0%
305.90i	Inhalant Abuse	2	5%	2	5%	0	0%
305.6	Cocaine Abuse	1	3%	1	3%	0	0%

6.29 Global Assessment of Functioning (GAF)

6 patients had scores of 40 or below on the Global Assessment of Functioning (GAF) score indicating that 15% of the patients met the criterion for 'Some impairment in reality testing or communication, or major impairment in several areas'. Only 3 patients with a low GAF score correlated to scores over 45 on the Clinician Administered PTSD Scale (CAPS), suggesting that the GAF would not be a good indicator for PTSD.

11 patients had scores of 50 or below on the GAF indicating that 28% (which includes the 15% above) of the patients met the criterion of 'serious symptoms or any impairment in social, occupational or school functioning.

Although females were over-represented in the low score range (n=3 female: n=8 male), the small sample of 7 females and 32 males is too small to make any meaningful analysis.

Over half the patients 51% (n=20) fell below the moderate symptoms band, that is a score less than 60 on the GAF. This also indicates that many of the sample were relatively well.

The majority of patients 90% (n=35) in the study had at least 'some mild symptoms' scoring below 70 on the GAF.

6.30 Brief Psychiatric Rating Scale

The cut off scores for the Brief Psychiatric Rating Scale (BPRS) is not always clear in the academic literature despite its widespread use. Leucht et al. (2005) did some work on comparing these scores to the Clinical Global Impression rating and came up with the following results:

- BPRS total score of 31 equates to 'mildly ill'
- **BPRS total score of 41 equates to 'moderately ill'**
- BPRS total score of 51 equates to 'markedly ill'

Adapted from (Leucht et al. 2005).

These questionnaires were completed by the patient's primary nurse. The primary nurse would be the person that has most contact with this patient out of the multidisciplinary team. Most patients had been on medication for months or even years since their offence and arrest, so the scores may not reflect the depth of their illness at the time of arrest.

- 26 patients 67% had a score of ≥ 31

- 7 patients 18% had a score of ≥ 41
- 2 patients 5% had a score of ≥ 51

The most frequent symptom identified in the BPRS assessment was anxiety at 56% and then guilt feelings at 41%. Emotional Withdrawal and Conceptual Disorganisation were the next two highest scores at 36% and 33% respectively. All of these high scoring symptoms highlighted are consistent with post-traumatic stress disorder, indicating that incidence may be higher than other tools indicate. It is also apparent that the other Axis I Psychiatric disorders confuse the diagnostic picture when it comes to analysing the depth of trauma symptoms.

Q	Results show a positive result i.e. May have selected Mild to Extreme	All		women	% of women (n=7)	men	% of men (n=32)
2	Anxiety	22	56%	5	71%	17	53%
5	Guilt Feelings	16	41%	5	71%	11	34%
3	Emotional Withdrawal	14	36%	3	43%	11	34%
4	Conceptual Disorganisation	13	33%	3	43%	10	31%
8	Grandiosity	12	31%	0	0%	12	38%
15	Unusual Thought Disorder	12	31%	4	57%	8	25%
6	Tension	11	28%	0	0%	11	34%
11	Suspiciousness	10	26%	1	14%	9	28%
16	Blunted Affect	10	26%	3	43%	7	22%
17	Excitement	10	26%	1	14%	9	28%
1	Somatic Concerns	9	23%	4	57%	5	16%
9	Depressive Mood	9	23%	4	57%	5	16%
10	Hostility	7	18%	1	14%	6	19%
12	Hallucinatory Behaviour	7	18%	2	29%	5	16%
14	Uncooperativeness	6	15%	1	14%	5	16%
13	Motor Retardation	5	13%	1	14%	4	13%
7	Mannerisms and Posturing	4	10%	0	0%	4	13%
18	Disorientation	1	3%	0	0%	1	3%

Figure 62 Brief Psychiatric Rating Scale by Symptom Frequency

6.31 Risk Assessment

Part of the criterion for participation in the study was that the patient would be well enough to participate and the care team had to approve their participation. A patient was not approached to be a candidate unless they were settled and their psychotic condition had abated to a point where they could reasonably understand what they were participating in. Extra care was taken as part of the ethical approach of the research due to the nature of the unit. That is the patient is held against their will in the form of either correctional custody or by being a Forensic Patient under part 8A of the Criminal Law Consolidation Act (South Australia) also known as Not Guilty by Reasons of Insanity (NGRI) in other states and countries. The risk scores indicated that the patients had very low risk scores. This could reflect the poor sensitivity of the risk tool. For the first three risk score areas the average was 0 or no risk. For the ongoing long term risk aspects the scores were

minor 1 or 2 on average. Only 2 patients had individual risk scores, which were risks specific to them as individuals. For example one patient had tried to kill his mother as an offence and had long term thoughts of still wanting to kill her. Whilst he did not pose any current risk to his current carers, the risk to his mother was still high. The second patient had unusual disruptive behaviours resulting in specific risks such as talking about taking hostages and stealing keys from staff.

Average Risk Scores (Mean and Median)

Q	Risk Area	Score
1	Risk of Harm to Self	0
2	Risk of Harm to Others	0
3	Risk of Absconding	0
4	Individual Risk	3
5	Individual Risk	0
6	Individual Risk	0
7	Problem with Functioning	1
8	Level of Support	2
9	Response to Treatment	1
10	Attitude to Engagement	1

Figure 63 Average Risk Scores – Using Hospital Assessment

This risk tool is a general mental health risk tool and is less useful in a long term forensic care environment; however, it is organisational policy that this tool is used system wide and highlights three important risks of aggression to others, to the self, and risks of absconding or escape. Additional risk and clinical tools are used to capture forensic issues such as the Health of the Nation Outcome Scales (HoNOS), LSP16 (Life Skills Profile), the K10 (Kessler 10) the Dynamic Appraisal of Situational Aggression. The HCR-20 which reviews 20 items covering historical (10), Clinical (5) and future (5) risk factors is used internationally.

6.32 Feedback Questionnaire

Question: I found the process (prefix to all questions):	Sample Mean	Lowest Score	Highest Score
Helpful	6	3	10
Distressing *	5	1	10
Made my problems worse*	3	1	10
Too demanding*	3	1	8
Interesting	7	1	10
Made me worry what the interviewer might think about me*	4	1	10
Made me worry about other than the interviewer knowing about me*	3	1	7
Interviewer was supportive	8	2	10
I feel better having discussed these issues	7	1	10

I would recommend other patients be involved	8	2	10
Positive responses (a)	35	15	50
Negative responses (b)	17	5	35
Overall score (a-b)	16	-15	40
Questions with an asterisk * are a negative question			

Figure 64 Feedback Questionnaire Mean Scores

In one of the first research papers on acute trauma and PTSD research participation, it was found that 75% of patients found benefit from being involved (Ruzek & Zatzick 2000). The questionnaire presented above was not compulsory and was completed by 32 patients out of the 39 patients. Whilst most patients gave a positive result 27 (84%) of the 32 that completed the feedback questionnaire, 5 (16%) had a negative score indicating that their overall experience was more negative than positive. Four (4 or 13%) of these scores received a minus score between 0 and -5 i.e. only mild distress experienced, whereas 1 (3%) case scored -15 out of a possible -50. This particular person was being seen by a forensic psychologist during the research, and his support was sought prior to approaching the patient, and throughout the process as to whether the patient was happy to proceed. It demonstrates that for some, the research process and interviews were stressful and uncomfortable indicating care is required in embarking on PTSD research, particularly with vulnerable populations. In another trauma related research project that reviewed regrets about participation of 42 patients; 38 patients had no regrets, whilst 3 had the lowest level of regret, and 2 individuals expressed that the research had elicited negative emotions (Willebrand 2008). The vulnerability of this group was identified at the ethical approval stage and every care was taken to ensure patients were supported throughout the process. Patient's with mental health issues are a vulnerable group, but research has shown that there is a favourable response to participation (Grubaugh et al. 2012). The author was fully aware of these sensitivities and hence the above questionnaire was developed with the academic supervisor to analyse the effects of participation prior to embarking upon the action stage. This was a voluntary questionnaire and completed by the patients alone. The interviewer is also an experienced mental health nurse and even though every effort is made to reduce distress, it cannot be denied that this type of research will be uncomfortable for some patients.

CHAPTER 7

COMORBIDITY OF PTSD IN FORENSIC MENTAL HEALTH

7. Comorbidity of PTSD in Forensic Mental Health

Comorbidity can mean different things depending what is being presented, but in mental health it usually refers to alcohol and substance abuse co-existing with another disorder. It can also mean two other types of disorders co-existing such as intellectual disability and schizophrenia for example. Firstly we will look at the comorbidity of alcohol and substance abuse. Secondly smoking was extremely common amongst this population and the extent of it, the age of onset and health interventions are discussed. The data for comorbid conditions is provided in [section 6](#), but some discussion about comorbid mental health issues and PTSD are explored here.

7.1 Alcohol and Illicit substance use and Trauma

Whether alcohol and substance abuse is caused by PTSD or related traumas, it is thought that there is an increased risk that both will co-exist in that they share causative symptoms, but the likelihood that one causes the other is thought to be slight (Breslau, Davis & Schultz 2003). Alcohol and cocaine use are thought to be linked to more violent type traumas such as being mugged, raped or held captive (Johnson, SD et al. 2010). A multicentre study involving 459 subjects with PTSD had similar results to this thesis in that substance use disorder is more likely in patients with PTSD than alcohol related problems (Driessen et al. 2008). In a longitudinal analysis however of 1045 trauma patients in an emergency department, the evidence suggests the need for early intervention strategies to monitor alcohol consumption are implemented for those suffering trauma (McFarlane, AC et al. 2009).

Illicit substance use within correctional services is well recorded and this is highlighted in the most recent report 'The health of Australia's prisoners 2012' (Australian Institute of Health and Welfare. 2013). The report states that 45% of prisoners attribute their drug use to their current offence, and 70% of prisoners stated they had used drugs in the 12 months prior to their entry to prison. In a separate study in New South Wales, it was found that only 49% of prisoners had reported being assessed by a doctor for a mental health condition, suggesting that the real extend of mental health issues (currently at around 31% of entrants) may been extremely underestimated (AIHW 2012).

Comorbidity can also mean that two other types of disorders are co-existing such as intellectual disability and schizophrenia for example, or depression and PTSD. Firstly we will look at the comorbidity of alcohol and substance abuse and in forensic mental health populations the title 'triple troubled' has been used; that is a forensic patient who have a mental illness and a has a co-existing substance abuse disorder (Eriksson et al. 2013). Ninety percent (90%) (n=35) of the sample had taken illicit drugs and (n=31) 79% of the sample had tried drugs from between 26-99 times, whilst 72% (n=28) patients had taken drugs more than 100 times.

Fifty nine percent (59%) of the sample recognised that they had a problem with their use of illicit drugs, suggesting 30% thought their use was not. Although 49% (n=19) of the sample thought they were addicted to illicit drugs. Over half of the sample 51% (n=20) had injected drugs (see part 6 Childhood Trauma Questionnaire data for table of results).

Eighty eight percent (88%) of the 17 patients identified to have PTSD symptoms (including those with sub-threshold symptoms) reported that they had abused drugs; all but 2 of these had tried illicit drugs at the age of 16 or earlier. A high proportion 59% of this group (n=10 of 17) had also injected illicit drugs.

AUDIT	All	Female	Male
Hazardous Drinking	18	3	15
Cut-off Score >=8	46%	8%	38%
Problem Drinking	12	2	10
Cut-off Score >=12	31%	5%	26%

Figure 65 Audit Results Using Cut-off Scores

Alcohol and Drug use are considered to be used as a method of self-treating PTSD symptoms and it is thought their comorbidity is likely to reduce the effectiveness of any treatment for the substance abuse (Ford et al. 2007). In the Australian National Survey of Mental Health and Well Being 0.5% of the population had PTSD and a substance abuse disorder 24% of these being an alcohol abuse disorder (Mills, KL et al. 2006). The cohort examined in this thesis identified a similar incidence of alcohol abuse, whilst demonstrating an alarmingly high use of illicit drugs. Males were five times more likely than the female cohort to have an alcohol problem. When 90% (n=35) of forensic patients have a history of taking drugs and most of these 72% (n=28) more than 100 times, it is clearly a problem of epidemic proportion within this population. It is reported that treating the PTSD symptoms are more likely to alleviate illicit substance use, whereas treating illicit substance use is not likely to alleviate PTSD symptoms, suggesting that PTSD can potentiate illicit substance use (Hien et al. 2010).

7.2 Smoking

Smoking is known to be strongly associated with mental disorders, particularly those of the younger age group (18-39 years) (Jorm 1999). Thirty five (35 or 90%) of the patients identified that they had smoked at least 100 cigarettes in their lives. Whilst 31 (79%) continued to smoke. Twenty Seven (27 or 69%) patients identified that they had smoked prior to the age of 16 with a range of starting to smoke between the ages of 8 and 30 years. The median amount of cigarettes smoked per day was 20 cigarettes, with a range of 5 to 50 cigarettes per day.

7.3 Other Comorbid Mental Health Disorders

Whilst you don't automatically think of the perpetrator of homicide as a 'survivor' of homicide, they are often involved in the killing of a close relative, or friend. In a large study on homicide survivors (n=3614) it was found that the mental health consequences of such an event was PTSD (9%), depression, drug use, and alcohol abuse (Rheingold et al. 2012). The perpetrator will also experience unique challenges like the criminal justice system, the arrest process, the experience of prison or a forensic unit (usually both), the aggression from fellow inmates and patients, the threat of revenge from family members, the stigma of the media, and the rehashing of their offence over time. Not forgetting the guilt, remorse and for some horrific memories of the event. Many patients will have premorbid psychiatric diagnosis and previous contact with the mental health system.

A study of a case series of homicides over 9 years in the United Kingdom between 1997 and 2006 found that of the 5884 perpetrators, 605 had a mental illness at the time of the offence, and 598 had recent contact with mental health services (10% of sample). One of the concerns of the research was that there was an increase over time of the amount of perpetrators with psychosis (6% per year), particularly schizophrenia (4% per year) and this was closely linked to the increased use of illicit drugs and alcohol (Swinson, N. et al. 2011). In the South Australian cohort studied there was certainly a high incidence of psychosis, with 44% of cases stating they attempted to seek help prior to their offence. Fifty six percent (56%) having had contact with a mental health team in the 12 months prior to their offence, with 74% having met with their GP for help.

PTSD is often missed or underdiagnosed in the context of other disorders such as mental disorders, as many symptoms are perceived to be part of the patient's psychosis, depression, or anxiety disorder. Some patients are even traumatised within the mental health system by experiences like being assaulted by other patients, being admitted or injected against their will, and being restrained or secluded. This group call themselves 'survivors' of the mental health system. Other patients have expressed how their actual psychosis can be traumatising, experiencing horrific hallucinations, or being trapped in encapsulated paranoid type delusions, fearing for their lives and the safety of their family.

Patients who suffer from depression often have a history of trauma and in one study was found to be as high as 26% (Kasckow et al. 2012). The effects of issues such as depression and childhood abuse may have a synergistic effect on PTSD symptoms and outcomes (Yehuda, Vermetten & McFarlane 2012). In this sample 51% (n=20) patients obtained a score of 16 (the cut-off score for diagnosis of depression) or more on the CES-D scale (5 women and 15 men, proportionally indicating a higher ratio in women). An additional factor that can predispose someone to PTSD is living with someone who has been depressed, or if they have suffered some form of childhood trauma / abuse (Hammen 2011; Schoedl et al. 2010). Forty six percent (46%) (n=18) of patients had lived with someone in their household who was depressed, and similarly 46% (n=18) had lived with someone

who had been considered an alcoholic. If we focus on just those with a positive score for PTSD (n=17), then 82% (n=14) had scores of 16 or higher on the CES-D which would equate to a diagnosis of depression. When the CIDI scores were met and partially met for a Depression type diagnosis 51% (n=20) had positive scores, with an additional 26% (n=10) having positive scores for Bipolar type disorders. There were much fewer patients with psychotic type disorders at only 36% (n=14). The most frequent disorder identified by the CIDI was anxiety or phobic type disorders at an astonishing 85% (n=33).

Depression type symptoms place patients at risk of suicidal ideation and 41% (7) of those with a positive PTSD diagnosis (n=17) were identified to have moderate suicide risk using the MINI. There were 27% (n=5) with scores higher than 10 on the MINI who were considered high risk of suicide.

PTSD is likely to be caused by a most recent trauma or recent life event. The majority of patients 92% (n=36) identified their arrest or arrest and the ensuing events such as court as the most frequent recent stressful event, and 62% (n=24) said that their arrest or offence still affected them. The other key incidents related to a family member being sick, being unemployed or having to move home. The Impact of Event scale asks about trauma symptoms over the last 7 days and patients reported mainly avoidance symptoms as their most frequent with 'I tried not to think about it' being the highest at 82% (n=32), then 'I avoided letting myself get upset when I thought about it or was reminded of it' at 79% (n=31), and 'I tried not to talk about it' at 79% (n=31). Patients are actively trying to avoid thinking about their trauma, which poses a clinical challenge for the practitioners caring for them. There is also the ethical issue of whether their distress should be increased in order to provide assessment and treatment. This is debated further in the discussion.

Notes:

CHAPTER 8

CASE STUDIES AND PTSD CRITERION

8. Case Studies and PTSD criterion

Five case studies from the cohort of 39 have been used to bring the data to life and to provide some context around offences such as homicide, filicide and attempted homicide. The experiences of some of the patients are provided in more detail, and these are described alongside the data of their particular results for most of the tools utilised. It allows the reader to enter into the phenomenological aspects of the research whilst being provided with the empirical data to support these phenomena. Every case in the study was extremely interesting and provided a wealth of information, but only a few were selected across the crime types. A sample of each gender has been selected. A separate case of filicide is detailed, and even though there were 3 cases within the study cohort and included both genders, only 1 case is presented due to the limitation of wordage in this thesis. It was difficult to provide the reader with all the details and some cases have had to be edited in order to protect the identity of the patient.

8.1 Homicide Male

Brief Summary and Overview:

(The reference DW = voice recording location and time of recording)

John is a man in his 40's, who committed homicide and was found not guilty by reason of insanity. John has a diagnosis of Paranoid Schizophrenia. Although his illness is currently under good control through medication and a stable environment, John had previous admissions to hospital with evidence of visual and auditory hallucinations, grandiosity, and aggression toward others. Specific reports during the patient's previous admissions to hospital make reference to him responding to the television, believing that the mafia had a satellite link up to it and were out to get him. The offence had occurred 7 years prior to the actual interview (the interview took place in the second year of research hence a further 5 years ago – making the patients current period in custody at the time of publication 12 years).

John presents as an affable person, but slightly shy and has a positive outlook on his circumstances. He is very cooperative with staff and is treated as a trustee within the unit. He was the longest serving patient at the time of the research and is now in his 12th year of custody.

When asked to identify and prioritise his most stressful life events, he stated that the death of his mother was the most difficult thing he had experienced. John had spent some 6 years in the military and said that he had been a physical training instructor during this time and had gone through specialised training, reaching the rank of lance corporal (one above a private in the army structure) in his Battalion –

The Royal Australian Regiment First Battalion and received Australian Defence Force Medal. During this training he had experienced some traumatic events, particularly a training event in which he thought he was going to die, and continues to be affected by it today. He was trapped in an underwater tunnel by his combat webbing, and thought he was going to drown.

Upon leaving the army, John went into the security business, initially setting up his own firm, and later working as a bouncer in nightclubs. John identified many stressful experiences (16 in total) like being beaten up by 5 people *“there were actually 6 people 5 guys and 1 girl....I came out of it pretty well...I come out of it with one of my eyes bunged up and bruised ribs ..I thought I did pretty well ... I laughed about it afterwards, it was the first time I’d been beaten up”* (voice recording DW A001 11:00), having guns pointed at his head when working as a bouncer *“a fight broke out in a pool room out the back, I went to walk through to break it up, this guy jumped out in front of me and pulled a pistol, pointed it at my head and basically said back off ... I ignored him and went and stopped the fight...his intent was to scare me, I didn’t think he was going to pull the trigger”* (DW A001 12:20), and his actual offence of shooting someone in the head, killing his victim believing that he was part of a ‘bikie gang’ out to get him.

When we explored some of these events, John said that he didn’t feel anxious during these events and put this down to his military training *“because of my training in the military I didn’t see it as a fearful thing at all”* (DW A001 14:25). As a bouncer, John would have had contact with mafia or ‘bikie’ type characters, either as customers or as colleagues. John had a previous offence of shooting someone in the leg, so his involvement with weapons prior to his index offence (main offence) was not new. The belief that he would be put in cement or killed by mafia type people was not a stretch of the imagination and for him very real. However, the other symptoms of them controlling the satellite in order to send him signals through the television were clearly psychotic phenomena. John’s terror at the idea of being captured and put in cement had become fixed and he went into a mode of survival, for which he had been trained for in his military experience.

Life Events Checklist (completed as part of the CAPS)

	Life Events Checklist	Happened to me	Witnessed it or Learned about it
1	Natural Disaster		1
2	Fire or Explosion	1	
3	Transportation accident	1	
4	Serious accident	1	
5	Exposure to toxic substances		
6	Physical Assault	1	
7	Assault with a weapon	1	
8	Sexual Assault		1
9	Other unwanted or uncomfortable sexual experience		1
10	Combat or exposure to war	1	
11	Captivity		1
12	Life threatening illness		1
13	Severe human suffering		1
14	Sudden violent death i.e. homicide suicide		1
15	Sudden unexpected death of someone close to you	1	
16	Serious injury, harm, or death you caused to someone else	1	
17	Any other stressful event	1	
	<i>Most Significant Event</i>	<i>Red</i>	
	<i>Second Most Significant Event</i>	<i>Orange</i>	
	<i>Third most significant event</i>	<i>Green</i>	
	Total	9	7

To have so many events of trauma is unusual, but there is evidence that those who end up in the correctional system have a higher frequency of past trauma. If we consider that John was adopted as a child and went on to have numerous traumas in his life, a response to such stressors should not be unexpected. Yet with John, nothing seemed to bother him, a maladaptive response to stress known as dissociation, which in turn causes a worsening or cumulative reaction of the anxiety response.

Clinician Administered PTSD Scale (CAPS)

CAPS Scores (Frequency + Intensity combined scores – 17 items)

PTSD Cluster	CAPS Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (5) Cluster B 1-5	14	11	0-40	0-35
Avoidance (7) Cluster 6-12	2	17	0-56	0-46
Hyperarousal (5) Cluster D	0	9	0-40	0-27
Total	16	38	0-136	0-97

John related the above symptoms to him being locked in a security van, and when we completed the Clinician Administered PTSD Scale (CAPS) in relation to his offence, the scores were 0. The lack of fear or anxiety in relation to his offence seems somewhat bizarre and could be a symptom of avoidance.

John had experienced mental health symptoms before his offence and had sought treatment at his local mental health centre only 1 week prior to his offence. He claimed he experienced an unusual event whilst at work in a factory setting, when one of his colleagues said *“they are going to put you in cement”*. It was difficult to gauge whether this actually occurred or if John had actually hallucinated this statement whilst at work *“I received threats from people that I believe were involved in organised crime, they actually said to me – there’s people out there that want to put you in cement”* (DW A001 21:40). During the interview John clarified the timeline of events, saying the bouncer experience was when he was 22-23, beaten up at 26, and heard the threat of being put in cement at the age of 27 when he worked for a major car manufacturer and the offence occurred when he was 30, so his fear of a contract being on him had lasted 3 years.

From this apparent verbalised threat he assumed that ‘the bikies’ or people he had met in his bouncer days were out to get him *“I just think about my time as a bouncer and people outside the nightclub would threaten me... there was quite a few that I’d thrown out that said you’re a dead man and we’re going to fix you up”* (DW A001 20:10). Following the threat he heard from his work colleague in the car factory he then made efforts to procure a weapon from a newspaper, and agreed with the vendor to meet in an outback location *“I told you about the contract that they had on me, so that was on my mind ... as a result of that I wanted to purchase a weapon, a rifle that I could keep at home, because I thought the contract was, I was told about the cement, but I wasn’t quite sure whether that was true or if they were going to shoot me or whatever. So basically I read it in the paper that a guy had a rifle for sale and I went around his house and checked it out, and I arranged the next day to take it out bush to test fire the weapon, for accuracy and all that military sort of stuff. I was standing there and had a target on the tree and I was firing the weapon, just to check out the accuracy. The guy I*

was buying it off disappeared, then when he reappeared over the hill he had a rifle in his hand. Just at that point in time with my paranoia I thought he had been hired to take me out, as a result of that I ended up shooting him, I shot him, because I thought it was a contract out on me basically.... I thought he was going to shoot me”
(DW A001 39:50).

According to John he was given the weapon to try out in the bush setting, when the vendor stated that he would just get his rifle from the car to compare accuracy. John's paranoia led him to think that he had been set up and that when this man returned with the weapon, he was going to kill John. He thought he would take a pre-emptive strike and kill the man first. John had experience with weapons and knew how to handle a gun with accuracy. He shot his victim dead with a shot to the head. I asked John was he scared or feared for his life, but he stated “*no it was not so much fear, just concern - I think because of my military experience, being taught in a situation, that if someone is going to shoot you, I was taught that if your life is threatened, you are to react in that certain manner.*” John evaded the police for a number of days and thought that the police were going to shoot him when he was arrested.

Considering the Risks:

We need to consider John's perspective prior to the offence. He had experienced or witnessed many previous traumas, which related to his life being threatened like being beaten up only a few years before by 5 people, having been involved with criminal like gangs as a bouncer 'bikies' and having direct threats made on his life. John had military experience and had some advanced training with weaponry, as well as working in the field of security, and had shot someone in a previous offence. It was instinctive for John to procure a weapon to protect himself and the ability to access a weapon through a local newspaper was easy.

John had been admitted to hospital for psychosis recently prior to the offence, and went for help to the hospital one week before “*I went to hospital I basically told them I wasn't feeling very well, that I was paranoid, and that there was people after me, but they didn't diagnose me, or medicate me either, I was misdiagnosed, so I went back home*” (DW A001 33:20). He met his victim in an isolated area in a highly paranoid state, procuring the weapon because he thought he was going to be killed. It is likely that John had consumed large amounts of cannabis and possibly other drugs such as amphetamines. John was so paranoid that he thought the victim had set him up and was part of the gangs out to get him, and that he was going back to his car to procure another weapon in order to kill him. The outcome was almost inevitable.

Risk Factors identified during interviews and reports:

Military and Weapons

- Military History
- Experience with weapons
- Previous Offence with weapons
- Access to Weapons

History of Violence

- Fear of the mafia / bkie gangs
- Previous History of Violence (both as victim and perpetrator)
- Working in the security industry

Social and Clinical Indicators

- Illicit substance use (Heroin / Cannabis)
- Multiple Traumas 16 identified
- Paranoid Psychosis
- Previous Admission to Hospital
- Seeking Admission or Medical Help in previous month
- Personal Loss and Grief
- No family supports

Primary Stressor:

John's most stressful experience and what could be classed as the type 'A' criterion was when he travelled in the security van from the courts to the prison. *'It was the most frightening experience I have ever had'* (DW A001 18:22). John thought that for some reason the van was going to be hijacked by bikies, and they would take the van out to the bush, cut a hole in the top and pour concrete on him. *'I thought they were going to take the van, take it out bush, basically put the van, put me in cement, not even let me out the van, just cut a hole in the top of the van and put cement in'* (DW A001 19:23).

The experience sent him into such panic that he thought he was going to die. Whenever John now sees the security van approach the building, even though he is not travelling in it, he goes into a panic. John was required to use these vans to attend appointments and when required to attend further court hearings. He was so anxious about this that special arrangements had to be made for him to travel in a bus with windows in it, as he would refuse to travel in the security van. This fear continues.

John's overall Clinician Administered PTSD Scale (CAPS) score was low with a total of 16, the majority of his symptoms fell in the re-experience Cluster B questions having a total of 14. However, when I asked to him to answer the questions with the sole purpose of reflecting on his offence, his total CAPS score was zero. There are additional questions on the CAPS that ask whether you feel guilty for anything you have done during the event, or feeling guilty having survived the event when others did not. John stated 'no' to both of these questions. In the first part of the interview when discussing having thoughts of the offence over the last month he stated that *'I was thinking about if I'd of been able to handle the situation better than what I did, I was sort of thinking about that, maybe was it the right thing to do or maybe I over-reacted'* (DW A061 2:24). This indicates that John believes he did the right thing at the time of the offence, suggesting that having killed someone may have been an overreaction. John killed someone he had never met before because of a delusional belief he was going to be killed. In his reflection, he is still unsure whether he did the right thing or not. Both a lack of guilt or anxiety around his offence may indicate that John is in a psychological process of avoidance or he is unable to connect with the act and consequences.

Risk assessment tools, particularly the more common actuarial style rarely look at such detail of the offence, previous traumas, and don't focus on feelings of guilt or remorse. The CAPS score of zero in relation to his offence is a good example of a null hypothesis of the proposal that people who commit homicides or other serious actions of harm experience do not suffer trauma from such events. However the incidence of high CAPS & PTSD checklist Civilian Version (PCL-C) scores in 33% of cases indicates otherwise and that John's case is atypical.

Demographics

John is aged 40 years old and has never married and lived alone. He was adopted at an early age, and never knew his real parents, a significant factor in his life. According to his responses in the Childhood Trauma and Family Beliefs questionnaires, he had perfect parents and a perfect childhood, which indicates a very passive response, as if all was perfect in the world. In fact he identified the death of his (adopted) mother as the most traumatic event in his life. Although he left school at an average age of 17, he did not complete year 12. John worked in a car factory which was a major employer within the state, on an income of around \$40,000 per annum.

Health

On answering the physical health questionnaire John indicated that he had zero health problems, but was in the overweight range of BMI (33) at a height of 1.71 metres and a weight of 97 Kilos. John began smoking at the age of 12, and currently smoked around 14 cigarettes per day. He only drank around once per month, but would have more than 7 units when he did drink. John was adopted as an infant and indicated that his mother had a problem with alcohol who had since died, but reported no family problems and still had some contact with his father and brother. He had tried drugs at the age of 23, but had only used them once or twice in total according to him; however his clinical notes indicate his earlier admissions had been exacerbated by drug use, mainly marijuana. In one report he was using half a bag a day. John indicated that his current quality of life is good and that he is not limited at all.

Scores from various tools:

Aggression Questionnaire (Buss - Perry)

The results are broken down into the four factors as well as providing a total score. Comparisons are provided from the whole sample n=39, as well as the mean scores provided in the study by (Buss & Perry 1992).

Subscale Scores:

Domain	Score	Sample Mean	Score Range	Sample Range	Gen Pop Mean
Physical Aggression	13	23	9-45	10-45	24 (SD 7.7)
Verbal Aggression	17	13	5-25	6-21	15 (SD 3.9)
Anger	11	16	7-35	7-33	17 (SD 5.6)
Hostility	15	20	8-40	9-33	21 (SD 5.5)
Total	56	72	29-145	39-126	77 (SD 16.5)

The total mean score in a study of a large group of college students (n=1253) was 77.8 (SD 16.5) for males and 62 (SD 17) for females, suggesting that this patient has a low expression of aggression. This patient has a score of 56 and has not been physically aggressive within our service which is consistent with his result.

AUDIT (Alcohol Use Disorders Identification Test)

AUDIT Score	Sample Mean	Score Range	Sample Range
7	10	0-40	0-28

A cut off score for hazardous drinking is \geq eight (8) and the cut off score for problem drinking \geq twelve (12). This would be considered to be in the normal range of drinking.

Smoking 5 question were asked about smoking habits

Have you smoked at least 100 cigarettes in your entire life? No (0), Yes (1)	Yes	35 of n=39 said yes
How old were you when you first began to smoke cigarettes regularly?	12	27 of n=39 smoked before 16, the average age being 15 (sample range 8-30)
Do you smoke cigarettes now? No (0), Yes regularly (1), yes occasionally (2)	Yes	31 of n=39 currently smoked
If "YES"; on average, about how many cigarettes a day do you smoke? Number of cigarettes:	14 per day	Average Mean cigarette intake was 21 per day
If you used to smoke cigarettes but don't smoke now: About how many cigarettes a day did you smoke?		Patient still smoked
How old were you when you quit?	N/A	

The Forensic Service has since become a smoke free facility and this patient has not smoked for 2 years.

Brief Psychiatric Rating Scale - BPRS (18 questions)

BPRS Score	Sample Mean	Score Range	Sample Range
34	34	0-126	18-67

(Brief Psychiatric Rating Scale (BPRS) score of 31 equates to 'mildly ill'; score of 41 equates to 'moderately ill'; score of 51 equates to 'markedly ill')

The score of 34 would place the patient in the mildly ill range, which fits his current presentation. The patient is a long term patient and has a life sentence.

Centre for Epidemiological Studies – Depression Questionnaire:

CES-D (score range = 0-60) this patient had a score of 6 indicating no depression (sample mean = 11: Sample range 0-48: **A cut off score > sixteen (16)** is considered to have problems with depression).

This patient has minimal symptoms of depression and would be considered to be relatively happy considering his current context of being detained for the last 11 years in a forensic unit.

Childhood Trauma and Household Experience Questionnaire: CTQ

Theme	Score	Sample Mean	Score Range	Sample Range
Experiences involving drugs & alcohol; depression; suicidality and other family disturbances either personally or within the household (out of 20 adverse experiences).	3	8	0-20	1-17
Experience of Parent Domestic Violence	0	3	0-16	0-16
Physical abuse	1	4	0-8	0-8
Neglect	5	8	0-60	0-24
Emotional Abuse	2	8	0-20	0-20
Sexual Abuse	0	2	0-6	0-5
Total Score	6	33	0-130	4-87

The patient identified only 3 problematic areas within the CTQ and this was around taking drugs, mainly marijuana. Apart from taking drugs the data would indicate that the patient had a childhood without problems.

Drug Use

The Childhood Trauma questionnaire also asks about illicit drug use:

How many times have you used illicit drugs	3 to 10 times
How old were you when you first had illicit drugs	23
Have you ever injected illicit drugs	0

This patient was believed to have been under the influence of drugs at the time of the offence and the frequency stated above does not match the evidence provided within the clinical reports.

Composite International Diagnostic Interview

(CIDI Core version 2.1) Lifetime Scorer (DSM IV TR)	Criterion Met	Age of Onset	Age of Recency	Recency
Opioid Dependence 304.00	Yes	24	24	More than a year ago
Cannabis Dependence 304.30	Yes	27	30	More than a year ago
Opioid Abuse 305.50	Partially met	24	24	More than a year ago
Cannabis Abuse 305.20	Partially met	27	30	More than a year ago
Schizophrenia 295	Yes	28	31	More than a year ago
OCD 300.3	Yes	27	30	More than a year ago
PTSD 309.81	No	0	0	0
Panic 300.01	Partially met	18	36	Last 2 weeks
Specific phobia 300.29S	Partially met	3	18	Last 2 weeks
Mini Mental State Examination				28 out of 30

CIDI Criterion met:

There were positive results for abuse of drugs, schizophrenia, and obsessive compulsive disorder, and most of these symptoms appeared at the age of around 28 and finished at the age of 31. However, the panic disorder is something that started at the age of 18 and the patient continues to have current symptoms in the last month. There were no symptoms of PTSD as the criterion was not met. The CIDI has captured the mental health picture of the patient well, identifying the cannabis use right up until the offence at the age of 30. There was an ongoing panic disorder that is still current, with an element of obsessive compulsive thoughts. The Mini Mental State Examination (MMSE) is 28 out of a possible 30. These symptoms were then complicated by the onset of schizophrenia at the age of 28 years, and the combination of the use of drugs, weapons expertise and links with security had the resultant outcome of the offence of homicide.

Dynamic Appraisal of Situational Aggression (DASA)

DASA Score	Sample Mean	Score Range	Sample Range
0	1	0-12	0-4

A person who scores 7 is 29 times more likely to assault someone; a score of 6 = 15.7 times, (and so on 5 = 3.17, 4 = 4.48, 3 = 2.79, 2 = 2.69, and 1 = 1.31). This patient scored a zero indicating no risk of aggression.

Family beliefs – Measure of Parenting Style (MOPS)

Domain	Mother	Father	Cumulative
Indifferent	0	0	0
Over Control	0	0	0
Abuse	0	0	0
Totals	0	0	0

Total Cumulative score of 0, out of possible 90; sample mean = 15: Sample range 0-88. This patient was adopted in early childhood and appears to have had the perfect parents going by the data above, 3 other patients of 39 achieved this score.

Feedback questionnaire (scale used from 1- 10 for each question)

Feedback Score	Score	Sample Mean	Score Range	Sample Range
Positive Scores	45	30	5 - 50	15 - 50
Negative Scores	5	16	-50 - 5	-35 – to -5
Total Score	40	16	-50 to +50	-15 to +40

The total score is obtained by subtracting the negative score from the positive score. The patient found the process very positive. The negative score was the minimum possible.

Global Assessment of Functioning (GAF) = 65 (sample mean = 59: Sample range 30-85)

GAF Score	Sample Mean	Score Range	Sample Range
65	59	0-100	30-85

A score of 65 (61-70 range) is consistent with the Brief Psychiatric Rating Scale (BPRS) score placing the patient in the some mild symptoms range, or some difficulty in social, occupational or school functioning, but generally functioning pretty well, has some meaningful interpersonal relationships (adapted directly from the Global Assessment of Functioning). This patient interacted reasonably well with other patients around him, and would participate well in groups.

Impact of Events Scale specifically related to the offence or arrest:

PTSD Cluster	IES-R Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (8)	1	10	0-32	0-30
Avoidance (8)	3	12	0-32	0-30
Hyperarousal (6)	0	6	0-24	0-19
Total (22)	4	28	0-88	0-73

The results show that the patient had few PTSD symptoms, but those that were present were around avoidance, that is avoiding talking about the offence or arrest.

MINI (Suicidality)

Suicidality	Sample Mean	Score Range	Sample Range
0	4	0-33	0-23

(Low Risk < six; medium risk; > six; high risk > ten)

This patient has never expressed any suicidal ideation. A score of zero using this scale indicates no reported evidence of suicidal ideation.

Past Feelings and Acts of Violence (PFAV)

PFAV Score	Sample Mean	Score Range	Sample Range
5	9	0-34	1-31
Q6 Attacked family			
Q7 Attacked non-family	Yes (1)		
Q8 Use of Weapon to harm	Yes (1)		
Q11 Violent Crime	Yes (2)		

The Past Feelings and Acts of Violence (PFAV) has a cut off score of 5 as being potentially violent, but this tool also has specific notification that if answering yes to Q6 and Q7; Q8 or Q11 as reported above usual indicates the person is violent.

Post-Traumatic Stress Disorder Checklist - Civilian Version (PCL-C)

PTSD Cluster	PCL Scores	Sample Mean	Score Range	Sample Range	Gen Scores	Pop
Re-experiencing (5)	10	12	5-25	5-25	9.2 (SD 4.2)	
Avoidance (7)	9	16	7-35	7-34	12 (SD 5.7)	
Hyperarousal (5)	5	11	5-25	5-21	8.2 (4.3)	
Total	24	38	17-85	19-74	29.4 (SD 12.9)	

The results above would indicate that the patient is not suffering from PTSD and minimal re-experiencing symptoms.

Recent Life Events

RLE Score	Sample Mean	Score Range	Sample Range
1	11	0-42	1-29

This patient identified only 1 item which was a relative being seriously ill or injured. This event only scored a 1, indicating that the event is no longer an issue. Again this patient scored the lowest end of the range for current stress.

Risk Assessment – Local Tool

Risk Score	Sample Mean	Score Range	Sample Range
3	6	0-28 + (other risks)	0-14

The patient has an overall low risk score, the main risk being lack of supports in the community; apart from this, there were no other risks indicated.

TDQ Trait Dissociation Questionnaire

Dissociation: Symptom	Sample Mean	Score Range	Sample Range
Frequency = 2	24	0-38 (38 questions)	2-38
Total Frequency x intensity = 2	49	0-190 (5 x38)	2-127

This patient had the lowest sample score for both symptoms and total TDQ score, which also fits in with the fact that the patient does not seem to suffer any PTSD symptoms in relation to his offence. Only 3 patients out of the 39 scored less than 20 in their total TDQ score.

World Assumptions

This questionnaire is divided into 8 subscales and a cumulative total (which can be added to form 3 factors of Benevolence; :

Domains (Benevolence, Meaningfulness, Self-Worth)	Score	Mean Score	Score Range	Sample Range
Benevolence of People	21	16	4-24	6-23
Benevolence of World	21	16	4-24	4-24
Control	18	15	4-24	6-22
Justice	13	14	4-24	4-24
Random	22	14	4-24	4-22
Luck	19	15	4-24	4-24
Self-Control	21	17	4-24	8-24
Self-Worth	23	16	4-24	4-24

The 8 subscales can be used to summarise the patient's apparent view of the world and the data would indicate that he believes the world is benevolent, meaningful and has a higher than average self-worth for this population. A positive view of the world usually indicates that the individual is not suffering symptoms of PTSD.

Summary and Comments:

John was able to communicate well throughout the interviews, but had some issues with concentration, sometimes asking 'what was the question', which indicated some form of thought blocking or poverty of thought. This only lasted a few seconds and most of the interviews proceeded as planned. Of particular note are John's low scores in relation to the Recent Life Events and Impact of Events Scale. According to John, there were no examples of childhood trauma, no issues with child abuse, nor any difficulty with drugs or alcohol.

Clinical reports however indicate that he was using half a bag of marijuana per day for many years, and had used some on the day of his offence. The same reports indicate that he had also experienced using heroin and speed. What was evident from the interviews was that John claimed he had sought help for his mental

health one week prior to his offence, but did not receive the help he obviously needed to prevent him carrying out his offence of homicide. Reports indicate there was no evidence of psychosis upon his presentation to hospital, despite his previous admissions for same, but it is possible symptoms were hidden.

Predicting such an offence is debatable, but he had not threatened anybody prior to the offence, although he had some involvement with firearms both in the army and in his role as a bouncer, and had a previous firearm offence. Firearms are a clear risk factor with those who have a mental illness and a firearms notification has to be made to police whenever health staff become aware of a patient owning a weapon. The specific illness 'Paranoid Schizophrenia' combined with weapons is of particular concern, as the patient is likely to harm someone else with the motive of trying to protect themselves or others. Similarly suicide is highly likely with this diagnosis.

Although John had expressed experiencing trauma in relation to his experience of being locked in a security van and believing he was about to be killed, he expressed no anxiety or ongoing stress in relation to his offence, nor did he feel any guilt or ongoing remorse. John's expressed symptoms are more closely aligned to having claustrophobia, having panic attacks which are heightened by his delusional beliefs of being hunted by some form of gang. John says he had suffered this type of claustrophobia since being caught in his webbing whilst submersed in a water tunnel on an obstacle course and thought he was going to drown *'there was an obstacle called a water tunnel, whereas you had to go through a tunnel underground, which was full of water and had a few different turns in it. I went in with my webbing and I got trapped under there, and that was my first claustrophobic experience because I was close to drowning.'* (DW A061 27:00)

John as a case exemplar would not support my hypothesis that those who commit serious violent offences such as murder, experience ongoing trauma and guilt from their actions and experience; unless you consider psychosis as an extreme form of PTSD. John not only doesn't suffer from ongoing anxiety from his offence, but seemingly is at the opposite extreme of having none. This could be explained by a total avoidance of his real traumas, and resulting in anxiety in another form.

8.2 Homicide Female

Brief Summary and Overview:

Susan is a woman in her 40's who committed homicide and was found not guilty by reason of insanity. Susan has a diagnosis of Paranoid Schizophrenia and has had previous interventions from mental health services. Reports indicate she had been not been taking her medication prior to her offence. Following the death of her new born son 13 years ago, Susan began to get depressed and paranoid of a persecutory nature about people wanting to "get her". Susan's illness became severe enough that she lost her job as an assistant manager in a local store and then began to lock herself in her home for safety, started to have religious delusional beliefs, insomnia and a poor appetite. She was on a number of medications including Sodium Valproate, but stopped taking the Valproate as it had started to make her feel numb, and she states that her mother suggested she stop taking that particular medication. Susan had 2 daughters aged in their early teens and had a boyfriend who had Schizoaffective disorder.

Susan presents as a timid lady who is polite and very cooperative. She would generally keep to herself on the ward. She tended to read to keep herself occupied, but as she had not long been admitted appeared slightly depressed. Susan would engage in conversation when spoken to, or when asking for things such as PRN medication, but apart from that remained quiet and withdrawn.

When asked what her most stressful life event was, Susan stated it was the death of her mother (whom Susan had killed only a few months before). 3 months prior to her offence she reported hearing her son Henry's voice talking to her. Initially she found this welcoming, but then other voices came and were telling her that her children were going to be harmed. Susan believed her children were being sexually assaulted at school, tortured, and that their organs were going to be taken so that her children would be harmed in this life but also for their eternal lives. Susan would hear these voices day and night to the extent that a few weeks prior to the offence she had cut her wrists and taken an overdose. Susan had regular contact with mental health services and had been on a depot injection, but had become non-compliant with her oral medication prior to the offence.

Susan's mother was visiting her home to deliver some house furniture and her father was waiting outside with the van whilst her mother announced their arrival. When Susan's mum began conversing with her, she claims the voices in her head were saying how her mother was involved in organising her children to be tortured and harmed, or was even the instigator of this. Susan claims that the voices were affecting her at the time of the offence, jumping from her head to the victims. According to Susan the voices then returned to her head and told her what to do. She is unsure about the ensuing events, but believes her victim must have been knocked unconscious as she had time to go to the kitchen for a knife and then

killed her. The homicide resulted in multiple stab wounds to the victim. Only weeks after Susan's arrest her attitude and statements remained somewhat aggressive and in a statement made to another professional, she appeared angry to the interviewer and toward her victim, indicating that the victim deserved it, as she could hear her children screaming and felt that she was defending them.

Susan identified that the voice was of the devil and that there were other voices, all telling her how her children were going to be harmed. This continued even after the offence whilst in hospital, Susan recalls the voices telling her that her children were still being harmed and tortured, but she knew it couldn't be true as she had only just spoken to them on the phone and that they were fine.

"I'm still fighting every day hearing different things and yet, like hearing that my daughters are being hurt, yet I'm talking to them on the telephone now and they're perfectly fine. I turned around and was still thinking they were being harmed, that they were repeatedly being killed by people. Murdered and stuff like that. It's hard to explain. The voice first identified itself to me as my son, which I sort of welcomed."

DW A0352 5:00

Now medicated and with her symptoms under control, Susan is a gently spoken person and the initial aggressive language used in the early interviews seems inconsistent with her current character and behaviour. She is horrified at the fact that she has killed her mother who she loved very much and often became teary at the very idea of it. This is how she later reports the offence during the interview:

"I remember me getting very angry that she came out with what she did....I was asking someone else what I should do, and they would tell me what to do. He said he was Henry. She just came out with - that she wanted everything of mine, or that's what I thought she said, but obviously it was just my mind....the voice jumped from me to her and she came out with this stuff, I heard the girls screaming and I reacted. It was like they were being harmed at her request. She wanted everything and wanted me dead in this life time and for the next lifetime then it was like somebody else taking over from me, it just wasn't me. I remember saying 'should I get her' to the voice and they said 'yer' back to me. It wasn't like reality..... It was like I was asking somebody the whole time what should I do, it was like I was being directed what to do the whole time.... I remember what I did, but I don't really remember, I don't think my mind wants me to"

DW A0352 7:00

The research interviews did not start until at least a month following the offence and the statement made in 'report 1' above indicates that Susan was in a different state of consciousness in that she could remember the detail of the offence and spoke to the consultant with disdain and was remorseless about her actions. When the author completed the first interview as cited above, there was a completely different presentation and Susan found it difficult to recall the detail of

the event, suggesting a level of dissociation with the event. She was also extremely remorseful:

“I’ve got no real memory now of it all where when I am having flashbacks to it, it’s like it wasn’t me and I can’t relate to it. It’s like it didn’t happen but I know it did. I can’t believe what happened. Even my stay at the other hospital, according to other patients I was there for a while and I can’t remember it” DW A0352 2:30

This is an example of someone who has committed an act of homicide whilst in a psychotic state and as they become well they have to face what they have done, but also live with the vivid memories in the form of dreams, flashbacks and intrusive thoughts. The tools that follow will elucidate some data in this specific case.

Life Events Checklist (completed as part of the CAPS)

	Life Events Checklist	Happened to me	Witnessed it or Learned about it
1	Natural Disaster		
2	Fire or Explosion		
3	Transportation accident	1	
4	Serious accident	1	
5	Exposure to toxic substances		
6	Physical Assault	1	
7	Assault with a weapon		
8	Sexual Assault		
9	Other unwanted or uncomfortable sexual experience		
10	Combat or exposure to war		
11	Captivity		
12	Life threatening illness		
13	Severe human suffering		
14	Sudden violent death i.e. homicide suicide	1	
15	Sudden unexpected death of someone close to you	2	
16	Serious injury, harm, or death you caused to someone else	1 As in 14	
17	Any other stressful event		
	Most Significant Event	Red	
	Second Most Significant Event	Orange	
	Third most significant event	Green	
	Total	7	0

Seven events had been identified, but item 14 and 16 are the same event. The homicide and death of her mother are the same event. The sudden unexpected death was of her newborn son some 13 years prior to the offence. Only these 2 events were focused on throughout the interviews, as identified by the most significant events by Susan. No witnessed events were identified.

Clinician Administered PTSD Scale (CAPS)

CAPS Scores (Frequency + Intensity combined scores – 17 items)

PTSD Cluster	CAPS Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (5) Cluster B 1-5	12	11	0-40	0-35
Avoidance (7) Cluster 6-12	16	17	0-56	0-46
Hyperarousal (5) Cluster D	11	9	0-40	0-27
Total	39	38	0-136	0-97

Susan described that she continues to get flashbacks in the form of dreams at night and whilst sitting alone during the day.

“I don’t really recall what happened, but I am dreaming it at night time and during the day, I’ll be thinking of something then I’ll see myself doing something to my mother ... at night time I still think that she is still after my body organs, I am still dreaming itMost of the time it’s not in my mind that I’ve actually done it – she was a nice mum”

The score above would indicate that the patient is sub-threshold PTSD but clearly has symptoms in each cluster. The patient is also heavily medicated and this may mask the severity of symptoms, dampening the full effect of PTSD.

Considering the Risks:

There are reports that the patient had smoked cannabis at times and that this may have exacerbated symptoms. There is clear evidence that there was non-compliance with oral medications. Paranoid thoughts and auditory hallucinations are known risk factors for violence in mental health. The delusional beliefs of the perpetrator’s children being harmed, and religiose type delusions are also factors that create a fear and protection instinct, combined with a strong unswayable religious conviction for the need to act. Command hallucinations compound these factors resulting in acts of violence. Susan was also an expert in martial arts and had reached a highly competitive level in her younger days. Her sister reported that Susan had expressed bizarre and dangerous hallucinations that the voices had told her to harm strangers or women she knew – making statements like eating their intestines or that she should kill them. There were also reports that she had talked about stabbing someone only weeks prior to the offence. The

combination of risks stated below and the worsening of her psychosis would indicate that systemic warnings should have occurred that would have provided more assertive intervention.

Risk Factors identified during interviews and reports:

Unique risks

- Partner who was has a mental illness
- Death of a newborn over a decade before
- Previous history of Paranoia of harm to children and self
- Non-compliance with medication
- Focusing on Parent as figure of harm - matricide

History of Violence

- Fear that her children were being harmed (tortured / mutilated) and abused
- Fear for her own life, her organs and soul
- Suicide attempt 2 weeks prior to offence
- Previous admissions to psychiatric care / Psychosis
- Command Hallucinations (from Satan) / Religiose delusions
- Voices telling her to harm others and to kill
- Verbalising ideas about stabbing or harming others
- Expert in martial arts

Social and Clinical Indicators

- Long period of mental health issues
- Partner had mental illness
- Children failing to attend school / unable to cope
- Loss of employment, paranoia about colleagues
- Use of illicit substances
- Self-Isolation / locking self at home for safety / fear
- Failure to continue work, employment terminated

Primary Stressor:

The primary stressor was the death of her mother; Susan states

"It's just the fact that I killed her is the terrifying fact for me ... I don't think my mind will let me remember it... it's like I did it but I didn't do it, it's hard to explain. I don't even remember arriving in hospital I think I was in shock myself"

DW A0353 2:00.

She reports being numb about it and that she dreams about it, reliving it. In her dreams she is still alive, and she takes a different measure, a different course of action and things go better, her mother is still alive.

Susan has these dreams a number of times a week and they wake her up like a nightmare. "I just say to myself well it did happen" DW A0353 8:50.

She believes that her body and mind is in denial and that it is like she didn't do it, and hence does not have strong feelings about the event. It's as if she is blocking any thoughts of the event out, but she is visited with the reality of her situation in dreams and flashbacks when she has visions of her mother lying dead on the floor for example. The media reported this as a mutilation and therefore the images recalled are likely to be highly disturbing and difficult to readily erase.

Demographics

Susan is a woman in her 40's who was on a disability pension after a long period of mental illness. She had previously been admitted to hospital following the worsening of her mental health symptoms and the loss of her job. She left school at the age of 15 without completing year 12 and is currently separated from her husband, but has a boyfriend who lived with her who also had a mental illness; Schizoaffective Disorder. Susan is the mother of two daughters aged in their early teens. She has moved houses approximately 7 times across her lifetime. The family had an annual income of around \$20,000 per annum and Susan received a pension and a carer allowance for her partner. Susan had a good relationship with her parents prior to the offence and they were very supportive toward her and her children.

Health

In the general health questionnaire Susan scored 9 (out of a 52) and 6 items were identified including joint problems, a thyroid problem, asthma, and bowel disorder. Susan is now prescribed drugs for her mental disorder and thyroid disorder. Since admission she has been started on the atypical antipsychotic Clozapine, which is used for treatment resistive psychosis. Whilst currently within normal weight range with a BMI of 26, there has been a weight gain due to the change in medication. Current weight is 68 at a height of 1.62 metres. Susan was smoking 5 roll ups per day and began smoking at the age of 15. She has since given up smoking. Susan

drank around once per month at a rate of 1 drink, which is within normal limits. There were issues with cannabis use with clinical reports indicating this had been daily at times before admission. Using questions from the SF-12, Susan rated herself to have poor health with an overall score of 30 (out of a possible 60). She estimates that she spent 15 days of the month prior to admission she stayed in bed for all or most of the day. Susan believes she is more tired and has less energy than others.

Scores from various tools:

Aggression Questionnaire (Buss - Perry)

The results are broken down into the four factors as well as providing a total score. Comparisons are provided from the whole sample n=39, as well as the mean scores provided in the study by (Buss & Perry 1992).

<i>Subscale Scores:</i> Domain	Score	Sample Mean	Score Range	Sample Range	Gen Pop Mean
Physical Aggression	19	23	9-45	10-45	24 (SD 7.7)
Verbal Aggression	6	13	5-25	6-21	15 (SD 3.9)
Anger	8	16	7-35	7-33	17 (SD 5.6)
Hostility	9	20	8-40	9-33	21 (SD 5.5)
Total	42	72	29-145	39-126	77 (SD 16.5)

The total mean score in a study of a large group of college students (n=1253) was 77.8 (SD 16.5) for males and 62 (SD 17) for females, suggesting that this patient has a moderate score for physical aggression but relatively low scores for the verbal expression of aggression such as verbal, anger and hostility. This patient has a total score of 42 and has not been physically aggressive within our service which is consistent with this result. Her low scores of anger and hostility are a contrast to her physical score, which could indicate the tendency to be explosive when aggression does surface, as shown in her offence. Susan is an expert in martial arts but presents as a meek, softly spoken, and timid. She is polite patient and very cooperative with treatment. This contrasts to her personality displayed during her psychosis when she talked aggressively, frequently used expletives, and expressed hostility in her comments. When being bullied by a fellow patient, there was no anger expressed toward her.

AUDIT (Alcohol Use Disorders Identification Test)

AUDIT Score	Sample Mean	Score Range	Sample Range
2	10	0-40	0-28

A cut off score for hazardous drinking is \geq eight (8) and the cut off score for problem drinking \geq twelve (12). This is a low score and would be considered to be in the normal range of drinking.

Smoking 5 question were asked about smoking habits

Have you smoked at least 100 cigarettes in your entire life? No (0), Yes (1)	Yes	35 of n=39 said yes
How old were you when you first began to smoke cigarettes regularly?	15	27 of n=39 smoked before 16, the average age being 15 (sample range 8-30)
Do you smoke cigarettes now? No (0), Yes regularly (1), yes occasionally (2)	No	31 of n=39 currently smoked
If "YES"; on average, about how many cigarettes a day do you smoke? Number of cigarettes:	0	Average Mean cigarette intake was 21 per day (sample range was 5-40)
If you used to smoke cigarettes but don't smoke now: About how many cigarettes a day did you smoke?	50	Heavy smoker (sample range was 5-50)
How old were you when you quit?	41	Just stopped

The Forensic Service has since become a smoke free facility and this patient has not smoked for 2 years. The patient did smoke upon admission but was able to stop smoking with relative ease – without patches and went “cold turkey”.

Brief Psychiatric Rating Scale - BPRS (18 questions)

BPRS Score	Sample Mean	Score Range	Sample Range
38	34	0-126	18-67

(Brief Psychiatric Rating Scale (BPRS) score of 31 equates to ‘mildly ill’; score of 41 equates to ‘moderately ill’; score of 51 equates to ‘markedly ill’)

The score of 38 would place the patient in the mildly ill range but heading toward the moderately ill range, however a lot of symptoms were masked by the high doses of medication. The patient will be a long term patient and has a life sentence following the offence of homicide. There was clear evidence of prior illness in the community, where the patient was reported to have symptoms in the markedly ill range.

Centre for Epidemiological Studies – Depression Questionnaire:

CES-D (score range = 0-60) this patient had a score of 24 indicating depression (sample mean = 11: Sample range 0-48: **A cut off score > sixteen (16)** is considered to have problems with depression).

This patient would become tearful when talking of her mother, her offence, being away from her children and the hurt she had caused her family. There were also problems with sleeping, flashbacks of murdering her mother and the after effects on her family and partner. There is also the fact that she now has a life sentence.

Childhood Trauma and Household Experience Questionnaire: CTQ

Theme	Score	Sample Mean	Score Range	Sample Range
Experiences involving drugs & alcohol; depression; suicidality and other family disturbances either personally or within the household (out of 20 adverse experiences).	5	8	0-20	1-17
Experience of Parent Domestic Violence	12	3	0-16	0-16
Physical abuse	6	4	0-8	0-8
Neglect	6	8	0-60	0-24
Emotional Abuse	20	8	0-20	0-20
Sexual Abuse	0	2	0-6	0-5
Total Score	49	33	0-130	4-87

The patient identified only 5 problematic areas within the CTQ and this included taking drugs, mainly marijuana, attempting suicide twice (prior to admission), and there were drinking problems both within her family and her partner. Susan however did not have a drinking problem. There was a very high score for domestic violence (12 out of a possible 16) indicating that the father would often hit, and punch her mother over a period of more than a few minutes. The physical abuse items were in the higher range (6 out of 8), but the emotional abuse was given a maximum score of 20. There was no sexual abuse indicated. With the modelling of violence toward the mother, and the psychological abuse at a maximum, Susan's childhood were not a supportive environment and indicate a high expression of aggression toward her. When we review the Family belief scores, it becomes apparent that the father was the source of the emotional abuse and the mother was supportive. It is ironic that it was the mother that became the source of fear in her delusions, demonstrating that it is often the person that is most supportive that can become the victim.

Drug Use

The Childhood Trauma questionnaire also asks about illicit drug use:

How many times have you used illicit drugs	More than 100 times
How old were you when you first had illicit drugs	14
Have you ever injected illicit drugs	0

This patient may have been under the influence of drugs at the time of the offence but it was noted that although the offence could have been influenced by the heavy cannabis use, it was more likely to be the long term psychosis that played the greatest part. The patient reports that her partner had also used cannabis, but injected type drugs were not used. Susan did not believe she had a problem with drugs.

Composite International Diagnostic Interview

(CIDI Core version 2.1) Lifetime Scorer

DSMIV-TR	Criterion Met	Age of Onset	Age of Recency	Recency
296.22 MAJOR DEPRESSIVE DISORDER, SINGLE EPISODE, MODERATE	Yes	27	41	Last 2 weeks
295 SCHIZOPHRENIA	Partially met	30	41	In the last month to 6 months
309.81 POSTTRAUMATIC STRESS DISORDER	Yes	41	41	Last 2 weeks
Cannabis Abuse 305.20	No	?	?	Not indicated
Mini Mental State Examination				29 out of 30

CIDI Criterion met:

There were positive results for depression, schizophrenia, and PTSD. The depression started soon after the death of Susan's newborn son, and the psychotic symptoms worsened at around the age of 30, soon worsening to the point whereby she could no longer work and was in fact sacked due to the paranoia against her colleagues. The CIDI provides reports that the criterion for PTSD is met, and is current. The Clinician Administered PTSD Scale (CAPS) placed the patient at a subthreshold level of PTSD having symptoms in all 3 sub-clusters and the criterion A relates to the offence of murder of Susan's mother. The Mini Mental State Examination (MMSE) is 29 out of a possible 30 indicating that there are no major issues with orientation and cognitive functioning. Susan indicated on the CIDI that there was not a problem with drugs, whilst she has indicated in an earlier questionnaire that she has used cannabis more than 100 times.

Dynamic Appraisal of Situational Aggression (DASA)

DASA Score	Sample Mean	Score Range	Sample Range
0	1	0-12	0-4

A person who scores 7 is 29 times more likely to assault someone; a score of 6 = 15.7 times, (and so on 5 = 3.17, 4 = 4.48, 3 = 2.79, 2 = 2.69, and 1 = 1.31). This patient scored a zero indicating no risk of aggression. Clearly the offence and reports would indicate a potential for explosive and homicidal aggression. The DASA however is about current displays of aggression in the last 24 hours which there were none. Nor have there been any displays of aggression during the whole admission.

Family beliefs – Measure of Parenting Style (MOPS)

Domain	Mother	Father	Cumulative
Indifferent	1	10	11
Over Control	0	8	8
Abuse	0	15	15
Totals	1	33	34

Total Cumulative score of 34, out of possible 90; sample mean = 15: Sample range 0-88. Susan's father clearly stands out as the indifferent, over controlling and highly abusive. This was also reflected in the Childhood Trauma Questionnaire, whereby the father was not only violent toward Susan's mother but also toward her both physically and even more so emotionally.

Feedback questionnaire (scale used from 1- 10 for each question)

Feedback Score	Score	Sample Mean	Score Range	Sample Range
Positive Scores	37	30	5 – 50	15 - 50
Negative Scores	14	16	-50 – 5	-35 – to -5
Total Score	23	16	-50 to +50	-15 to +40

The total score is obtained by subtracting the negative score from the positive score. The patient found the process very positive. Whilst the positive scores indicate a positive experience in the participation of the research, the negative score indicates possible discomfort and anxiety. This patient had most recently committed her offence and was still finding it difficult to talk about and had expressed this verbally during the interviews, feeling she didn't feel quite strong enough and ready to talk about the details.

Global Assessment (GAF) = 65 (sample mean = 59: Sample range 30-85)

GAF Score	Sample Mean	Score Range	Sample Range
50	59	0-100	30-85

A score of 50 (41-50 range) is slightly higher than the Brief Psychiatric Rating Scale (BPRS) score placing the patient in the serious symptoms range, or any serious impairment in social, (no friends, unable to keep a job) (adapted directly from the **Global Assessment of Functioning**). As the patient had only recently been admitted, this was a fair score for her situation and symptom level.

Impact of Events Scale specifically related to the offence or arrest:

PTSD Cluster	IES-R Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (8)	10	10	0-32	0-30
Avoidance (8)	23	12	0-32	0-30
Hyperarousal (6)	3	6	0-24	0-19
Total (22)	36	28	0-88	0-73

The results show that the patient had PTSD symptoms mainly of the avoidance type. The intrusive thoughts were around pictures popping into her mind, dreaming about the event, and thinking about it when being reminded of it. The avoidance symptoms were reflected in the interviews with expressions about it not seeming real, feeling numb about it, and trying not to talk about it. The Hyperarousal symptoms were minimal and the patient believed her mind would not allow her to think about it and it didn't stress her too much at present as it did not seem real.

MINI (Suicidality)

Suicidality	Sample Mean	Score Range	Sample Range
5	4	0-33	0-23

(Low Risk < six; medium risk; > six; high risk > ten)

This patient had made a suicide attempt prior to the offence in an attempt to rid herself of the tortuous hallucinations and delusional beliefs. Although she had thoughts about suicide since admission, the risk was low. The thoughts of suicide were related to depressive thinking and due to reflection on the fact that she had killed her mother and would receive a life sentence.

Past Feelings and Acts of Violence (PFAV)

PFAV Score	Sample Mean	Score Range	Sample Range
9	9	0-34	1-31
Q6 Attacked family	Yes (1)		
Q7 Attacked non-family			
Q8 Use of Weapon to harm	Yes (1)		
Q11 Violent Crime	Yes (1)		

The Past Feelings and Acts of Violence (PFAV) has a cut off score of 5 as being potentially violent, but this tool also has specific notification that if answering yes to Q6 and Q7; Q8 or Q11 as reported above usual indicates the person is violent. This patient had committed homicide in a manner of extreme violence initially rendering the person unconscious with her fists, then proceeded to kill the victim (her mother) using a knife, stabbing her in the head and then cutting her throat.

Post-Traumatic Stress Disorder Checklist - Civilian Version (PCL-C)

PTSD Cluster	PCL Scores	Sample Mean	Score Range	Sample Range	Gen Scores	Pop
Re-experiencing (5)	15	12	5-25	5-25	9.2 (SD 4.2)	
Avoidance (7)	20	16	7-35	7-34	12 (SD 5.7)	
Hyperarousal (5)	12	11	5-25	5-21	8.2 (4.3)	
Total	47	38	17-85	19-74	29.4 (SD 12.9)	

The results above would indicate that the patient is suffering from current PTSD, experiencing symptoms across each cluster. The PTSD checklist Civilian Version (PCL-C) is useful as a screening tool and supports the previous tools that indicate the patient’s main area of symptoms are in the avoidance cluster. The re-experiencing symptoms and the hyperarousal symptoms are higher than the sample mean.

Recent Life Events

RLE Score	Sample Mean	Score Range	Sample Range
12	11	0-42	1-29

This patient identified a number of items on this tool, all referring to the recent death of a relative (her mother) and other positive answers all related to this event. The homicide, ensuing arrest, and incarceration are all factors that have added to this score.

Risk Assessment – Local Tool

Risk Score	Sample Mean	Score Range	Sample Range
13	6	0-28 + (other risks)	0-14

The patient has an overall high risk score, the main risk being the risk of harm to self and others, due to the recent history of attempted suicide, thoughts of suicide, and the violent offence all related to the current risk. This risk tool also highlights current level of wellness and response to treatment and as the patient had a resistant type of psychosis, it resulted in a significantly higher score (13) than the mean sample score of 6. This patient was still on the acute area of the forensic unit following her recent admission and assessment; hence her score is at the high end of the sample range.

TDQ Trait Dissociation Questionnaire

Dissociation:

Symptom	Sample Mean	Score Range	Sample Range
Frequency = 19	24	0-38 (38 questions)	2-38
Total Frequency x intensity = 50	49	0-190 (5 x38)	2-127

The patient expressed a number of dissociative type symptoms like feeling numb, not being able to remember significant aspects of the event, feeling distant from those around her, and having some difficulty in concentrating. Some of the symptoms such as concentration are also related to the diagnosis of schizophrenia. The patient felt that her mind would not allow her to recall the event because it was too painful and a way of protecting her.

World Assumptions

This questionnaire is divided into 8 subscales and a cumulative total (which can be added to form 3 factors of Benevolence:

Domains (Benevolence, Meaningfulness, Self-Worth)	Score	Mean Score	Score Range	Sample Range
Benevolence of People	21	16	4-24	6-23
Benevolence of World	19	16	4-24	4-24
Control	6	15	4-24	6-22
Justice	15	14	4-24	4-24
Random	19	14	4-24	4-22
Luck	4	15	4-24	4-24
Self-Control	14	17	4-24	8-24
Self-Worth	14	16	4-24	4-24

The 8 subscales can be used to summarise the patient's apparent view of the world and the data would indicate that she believes the world is benevolent, that she has had a bad share of luck and feels a lack of control. A negative view of the world would indicate the patient may be suffering symptoms of PTSD. The lack of control and luck would also relate to her current circumstances and recent event.

Summary and Comments:

It is apparent from the dialogue in the interviews that Susan has clear PTSD symptoms, and although the Clinician Administered PTSD Scale (CAPS) was not definitive, and the PTSD checklist Civilian Version (PCL-C) score borderline, many of the symptoms will be masked by the heavy doses of medication. There were a number of significant traumatic events, the death of her newly born infant 13 years before, the trauma of the psychotic and delusional beliefs leading to an attempted suicide, and the most significant event of all being the action of killing her mother in a brutal fashion. The complexity of the psychosis interwoven with depression and the PTSD symptoms is difficult to separate out. The flashbacks and dreams experienced following the homicide are similar to those expressed by war veterans, which often results in intense psychological disabling stress for up to a decade (Behar 1987; Foy, Carroll & Donahoe 1987).

The gradual deterioration into paranoid psychosis, believing her children were going to be killed or harmed were not picked up by mental health professionals or family members; or at least not clearly communicated to health professionals, who may have been able to offer more assertive interventions. Susan is an example of how tragically things can go wrong when mental health symptoms are left unchecked, particularly when the combination of paranoid delusions and command hallucinations are combined. Limited and brief access to secure mental health care may result in future similar outcomes for other mental health patients. This was a terribly tragic case for the immediate and extended family. Recovery from such an event should include supporting people in the horror they feel toward this event, including the perpetrator. The discussion at the end of this thesis will propose that such patients need to talk about what led to their offence; what symptoms they had prior to their offence; what they actually happened; and how they can get help in future if such similar symptoms reoccur. Whilst in this case the patient is full of remorse and guilt, there is a need to consider the victims and part of the treatment should involve victim empathy programmes.

8.3 Filicide - Female

Brief Summary and Overview:

Jane is a woman in her mid-20's who committed filicide 6 months prior to the interview and was found not guilty by reason of insanity. Jane has a diagnosis of schizoaffective disorder and has had 2 previous admissions to mental health services following a drug induced psychosis. She had been using marijuana at the rate of around 2 cones per week, but prior to her offence had increased this to daily, possibly relating to an attempt at self-medicating against the psychotic phenomena experienced. The symptoms included a belief that there was a devil inside her house moving furniture around, hearing the voice of the devil coming from her baby, and believing that someone was going to come and kill her and the children.

Jane presented as a girl younger than her years, speaking in an immature manner that was more reminiscent of a teenager than of a girl in her mid-twenties. She appeared vulnerable and depressed and did not seem to have grasped in full the gravity of her circumstances. Her psychosis was not yet under control and she was suffering from some perseverative thinking. The memories of her offence were reasonably fresh and she appeared withdrawn and preoccupied.

Jane lived with her partner at the time of the offence, and after she had locked herself in her room for a few days, he was concerned by the dramatic change in her behaviour and attempted to get mental health services to come to see her; this was only days before the offence. Jane had two children, but whilst alone with her young baby, she thought she heard him say to her with an adult voice that she was a 'bitch'. It scared her and she believed that the baby was possessed.

"He called me a bitch first, and I thought he was possessed because he looked at me with pure hatred. And I thought that I was married to Jesus and I could make him come back to life. He didn't come back to life. I waited for him to come back to life, I put him in his cot, and he didn't wake up like I expected him to."

DW A0336 1:50

Jane was convinced by her religious delusions that God had chosen her and that she had special powers; believing that she could remove the evil spirit from her baby, killing him. Jane believed that *"like Jesus he would come back to life"* and that she would have saved him from the evil spirit. When her partner returned to the house, she would not let him in and begged to be shot and killed. Just before the police arrived Jane tried to kill herself by grabbing the wires in the light socket.

'There was a wire exposed, I stood up on a table, with a glass of water and put the wire in there with my fingers and tried to kill myself I wanted to die but it didn't work. All I said over and over again was cross my heart hope to die, stick a needle in my eye ... it was my prayer to God.'

DW A0336 3:30

The police entered the house finding the baby dead in the cot with multiple traumas. It was clear to them that Jane was unwell and she was repeating the statement ‘cross my heart hope to die stick a needle in my eye’, begging to be killed and shot. She was immediately taken to hospital for admission. In the CAPS interview when asked about her anxiety or fear Jane stated ‘what does anxious mean’ then went on to say ‘I just wanted to die’. Then was asked ‘were you horrified’ she stated;

‘Well when he didn’t wake up yes, I thought I had to kill him to get the evil spirits out of him... I believed he was possessed I hate myself ‘cos of this! Part of me is dead, I wish I could take it all back, I wished I’d not thought he was possessed’
 DW A0336 6:40

Jane identified 9 items on the life events checklists, the death of her baby being the primary issue, and another significant event was the sexual abuse by her stepfather. *“I lost my virginity to my mother’s husband, I forgive him, he used to be an alcoholic... It took me a few years before I had a boyfriend... I went to the hairdresser and asked them to cut my hair like a boy so I wouldn’t be pretty. I hated straight people and only made friends with gay people.”*

Life Events Checklist (completed as part of the CAPS)

	Life Events Checklist	Happened to me	Witnessed it or Learned about it
1	Natural Disaster		
2	Fire or Explosion		
3	Transportation accident	1	
4	Serious accident	1	
5	Exposure to toxic substances		
6	Physical Assault	1	
7	Assault with a weapon	1	
8	Sexual Assault		
9	Other unwanted or uncomfortable sexual experience	1	
10	Combat or exposure to war		
11	Captivity		
12	Life threatening illness		
13	Severe human suffering		
14	Sudden violent death i.e. homicide suicide	1	
15	Sudden unexpected death of someone close to you	1	
16	Serious injury, harm, or death you caused to someone else	1	
17	Any other stressful event	1	
	Most Significant Event	Red	
	Second Most Significant Event	Orange	
	Third most significant event	Green	
	Total	9	0

Jane experienced a number of extremely stressful events identified; including the two events mentioned earlier, the killing of her baby and the sexual abuse from her stepfather. Her stepfather had told her he was the devil and she believed him.

'When he was drunk he was cruel and obnoxious, just the way he would behave. I went to the police about a month after it happened. He got me drunk and he took advantage of me. I was 13 years old, and it happened for about a month, maybe 30 times. After going to the police I went into foster care. The police said there was nothing they could do because there was no physical evidence. I didn't care whether I died or not ... because I just wanted my mum to be happy and I knew this would not make her happy. He knocked me unconscious once, he punched me and my head hit the toilet bowl and I was knocked out.' DW A0336 18:00

Jane explained how at the age of 13 her mother would allow her to drink, smoke, and smoke dope and stated "I thought that was cool". There were two events whereby she had a knife held to her throat, once at 13 years by her stepfather;

'He held a knife to my throat and I said "do it, kill me". I wanted him to.'

DW A0336 28:00

The second time was when she was aged 15 and met a boy outside in an arcade and refused to give someone a cigarette, *'he held a knife to my throat and I still said no ... because he demanded it.'* DW A0336 29:00

The first incident of filicide was significant enough to meet the Criterion A, and this became the main focus of the rest of the interview.

Clinician Administered PTSD Scale (CAPS)

CAPS Scores (Frequency + Intensity combined scores – 17 items)

PTSD Cluster	CAPS Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (5) Cluster B 1-5	16	11	0-40	0-35
Avoidance (7) Cluster 6-12	29	17	0-56	0-46
Hyperarousal (5) Cluster D	11	9	0-40	0-27
Total	56	38	0-136	0-97

When discussing some of the symptoms during the Clinician Administered PTSD Scale (CAPS) interview one question asks have you ever had unwanted memories of this event?

"I just can't believe that I did it. I remember ... the moment he died I think about it every day, it causes me a lot of distress – it makes my hair fall out. I will remember it for the rest of my life. I dream about it all the time, but when I dream about it, he's alive and happy, I think about how beautiful he was and how easy he was to look after."

DW A0337 0:30

Jane says how she would find it difficult to get to sleep every night, but enjoys dreaming about her baby as he is still alive in her dreams, and it doesn't distress her until she wakes up and actually gets comfort from dreaming about him. Reminders such as seeing babies on the television cause her a lot of distress until she can again take her mind off it. There were events that Jane could not remember:

'well I don't remember hurting him, because the police reckon I did ... I think if I hurt him I should know it ... I don't think I did it'

DW A0337 12:50.

There were a number of injuries to the baby other than those described by Jane but she was unable to remember doing any of these.

As Jane described she believes she will be thinking about her baby and this event every day for the rest of her life, believes that her life is over, and that people will hate her. With medication and mental health support the level of remembering of the trauma should reduce over time. Jane has now been released into the community and will be closely monitored by the forensic community team. There is a significant risk if the patient returns to her previous pattern of illicit substance use and she has a second child.

Considering the Risks:

When reviewing the case history, the difficulties at school, the sexual abuse, the alcohol and illicit substance use at an early age, the cumulative effect of the multitude of significant events describe a troubled childhood. An additional fact was that Jane had been sentenced for the armed robbery of a service station with a knife, but was not given a prison sentence due to her young age. Jane had two admissions to hospital due to her drug induced psychosis and elevated mood. Prior to the offence she had clear delusional beliefs about the devil, believing that her baby was possessed, and this had been expressed to her boyfriend and other people who had alerted services in the days preceding the event. There were opportunities for early intervention, but the mental health support services were unable to make contact due to her locking herself in the house.

Risk Factors identified during interviews and reports:

Unique risks

- Sexual abuse from stepfather
- Alcohol and illicit substance use from the age of 13
- Believed she was being stalked by strangers
- Religious delusions and hallucinations
- Believed baby was possessed and was the devil

History of Violence

- Armed Robbery of Service Station
- Jane experienced being threatened with a knife twice

Social and Clinical Indicators

- Two previous admissions to hospital
- Attempted suicide
- Early abuse of alcohol and daily intake of cannabis
- Sexual abuse at an early age
- Unstable relationships

Primary Stressor:

Although 9 events were identified the offence of killing her son was the stand out primary stressor. Jane experienced additional trauma leading up to the event, believing that she was being stalked, then believing that her house was haunted by the devil, believing that her baby was possessed hearing the baby calling her 'a bitch' with an adults voice, and then there is the act of actually killing her baby. There were a number of injuries such as bruising and bite marks on the victim that Jane was unable to recall doing and described the act of killing as part of ridding the baby of the possession by the use of special powers that she had been given by God. Jane now has to suffer the loss of her baby which she says she loved very much, but also has to live with the fact that she killed her baby and all the images and memories that go along with that. A history of psychosis and mood disorder may cause further complications with such trauma across the lifespan.

Demographics

Jane was a woman in her 20's who had never married, but lived with her partner and had 2 children. She left school at the age of 15, did not complete year 12 and had the ability to read and write. Her occupation was as a full time mother and her main source of income was a government pension and lived in a private rental. Jane had moved houses 5 times in her lifetime.

Health

Janes states that she was unable to carry out her usual daily activities for around 21 days of the month prior to admission. Using the general health questionnaire, her physical health score was 3 out of a possible 52 and reported only three past health items, asthma, blood pressure and migraines with no current issues. Jane had a BMI of 35 placing her in the obese range, and this was likely due to side effects of the current medications and she was doing daily workouts to reduce her weight. She had recently given up smoking, but had smoked around 10 cigarettes a day. There was a history of illicit substance use, mainly cannabis at the rate of a few cones per week, increasing to daily prior to the offence.

Scores from various tools:

Aggression Questionnaire (Buss - Perry)

The results are broken down into the four factors as well as providing a total score. Comparisons are provided from the whole sample n=39, as well as the mean scores provided in the study by (Buss & Perry 1992).

Subscale Scores:

Domain	Score	Sample Mean	Score Range	Sample Range	Gen Pop Mean
Physical Aggression	13	23	9-45	10-45	24 (SD 7.7)
Verbal Aggression	13	13	5-25	6-21	15 (SD 3.9)
Anger	7	16	7-35	7-33	17 (SD 5.6)
Hostility	20	20	8-40	9-33	21 (SD 5.5)
Total	53	72	29-145	39-126	77 (SD 16.5)

The total mean score in a study of a large group of college students (n=1253) was 77.8 (SD 16.5) for males and 62 (SD 17) for females, suggesting that this patient has an average level of aggression. Jane would become angry when thwarted or denied something, but not to the point of physical aggression. It was noted that she acted younger than her years, and often became demanding of her parents who found it difficult to deny her things. Jane also dressed younger than her years with bright clothing and make up, as if she were a teenager. Throughout her stay she had not expressed any physical aggression, but had reported physical abuse from other male patients and psychological abuse such as 'baby killer' from other

female patients. Hence her score of 53 would be consistent with her current behaviour pattern and expression of aggression.

AUDIT (Alcohol Use Disorders Identification Test)

AUDIT Score	Sample Mean	Score Range	Sample Range
7	10	0-40	0-28

A cut off score for hazardous drinking is >= eight (8) and the cut off score for problem drinking >= twelve (12). This is within the normal range and would be considered to be a normal pattern of drinking. This patient is on the border of the hazardous drinking pattern. Having started drinking at an early age, and having role models that indicated it was acceptable to drink at an early age does not bode well for future coping patterns, particularly with the history of illicit drug use.

Smoking 5 question were asked about smoking habits

Have you smoked at least 100 cigarettes in your entire life? No (0), Yes (1)	Yes	35 of n=39 said yes
How old were you when you first began to smoke cigarettes regularly?	12	27 of n=39 smoked before 16, the average age being 15 (sample range 8-30)
Do you smoke cigarettes now? No (0), Yes regularly (1), yes occasionally (2)	No	31 of n=39 currently smoked
If "YES"; on average, about how many cigarettes a day do you smoke? Number of cigarettes:	0	Average Mean cigarette intake was 21 per day (sample range was 5-40)
If you used to smoke cigarettes but don't smoke now: About how many cigarettes a day did you smoke?	10	Heavy smoker (sample range was 5-50)
How old were you when you quit?	26	Just stopped

The Forensic Service has since become a smoke free facility. Many patients only gave up because it had become policy.

Brief Psychiatric Rating Scale - BPRS (18 questions)

BPRS Score	Sample Mean	Score Range	Sample Range
34	34	0-126	18-67

(Brief Psychiatric Rating Scale (BPRS) score of 31 equates to 'mildly ill'; score of 41 equates to 'moderately ill'; score of 51 equates to 'markedly ill')

The score of 34 would place the patient in the mildly ill range, however, the patient was currently being treated with antipsychotic medication so many symptoms would be masked. The patient had reported hearing voices, and seeing strange phenomena and having delusional beliefs when she was unwell.

Centre for Epidemiological Studies – Depression Questionnaire:

CES-D (score range = 0-60) this patient had a score of 41 indicating major depression (sample mean = 11: Sample range 0-48: **A cut off score > sixteen (16)** is considered to have problems with depression).

The diagnosis of schizoaffective disorder indicates that the patient is prone to a mood aspect in her mental health; these can swing between highs and lows. When a person is on a high they believe they have special powers and this patient thought that God was helping her write songs and was sending her and her partner special messages through the radio. Realisation of her offence that she had killed her baby whilst in a psychotic state and that she cared for her baby very much has added to her depression. Jane stated that she would regularly (daily) cry and hated herself for what she has done.

Childhood Trauma and Household Experience Questionnaire: CTQ

Theme	Score	Sample Mean	Score Range	Sample Range
Experiences involving drugs & alcohol; depression; suicidality and other family disturbances either personally or within the household (out of 20 adverse experiences).	10	8	0-20	1-17
Experience of Parent Domestic Violence	4	3	0-16	0-16
Physical abuse	4	4	0-8	0-8
Neglect	2	8	0-60	0-24
Emotional Abuse	10	8	0-20	0-20
Sexual Abuse	4	2	0-6	0-5
Total Score	34	33	0-130	4-87

As discussed earlier, Jane had experienced sexual abuse from her stepfather, but also scores high for emotional abuse. She reports having attempted suicide as early as 8 years old and had tried to suicide 3 times, once being a few weeks prior to her offence resulting in admission to hospital. Other experiences reported include taking drugs from the age of 12 but this was essentially restricted to cannabis and was accepted behaviour in front of her mother.

Drug Use

The Childhood Trauma questionnaire also asks about illicit drug use:

How many times have you used illicit drugs	>100 times range
How old were you when you first had illicit drugs	12 years old
Have you ever injected illicit drugs	No

Jane reported having smoked cannabis in front of her mother since the age of 12 feeling that it was cool to be able to do so. Her cannabis use had resulted in previous admissions to hospital for drug induced psychosis yet she continued to

use the drug at the rate of around 2-3 cones per week, apparently increasing this to 2-3 cones daily prior to her offence. Jane had used illicit drugs more than 100 times, which was not unusual for this sample group.

Composite International Diagnostic Interview

(CID I Core version 2.1) Lifetime Scorer DSMIV-TR	Criterion Met	Age of Onset	Age of Recency	Recency
296.42 Bipolar 1 disorder Manic, Moderate	Yes	13	26	6 months to less than a year ago
305.20 Cannabis Abuse	Yes	26	26	6 months to less than a year ago
300.3 Obsessive Compulsive Disorder	Yes	18	22	More than a year ago
307.51 Bulimia Nervosa	Yes	21	22	More than a year ago
292.0 Nicotine Withdrawal	Yes	26	26	Last 2 weeks
Mini Mental State Examination				30 out of 30

CIDI Criterion met:

Whilst the CIDI identified the affective aspects of illness, it did not identify PTSD or Schizoaffective disorder. Even though Jane had expressed that she thought the water was being poisoned, she was seeing ghosts, believing people were moving her furniture in her house and were out to get her, the schizoid aspects of her behaviour did not suffice for a diagnosis in CIDI. It also identified obsessive compulsive disorder and Jane recalls that she would clean the house from top to bottom when she was stressed and whilst in jail would count the rivets in the roof over and over. The CIDI is a computerised tool that does not allow for nuances in the patient's mood and if the initial questions are negative, then disorder is not selected and skips over the diagnosis. Jane scored 56 in the Clinician Administered PTSD Scale (CAPS) and 61 in the PTSD checklist Civilian Version (PCL-C), but the CIDI did not prompt for further questions in this area.

Dynamic Appraisal of Situational Aggression (DASA)

DASA Score	Sample Mean	Score Range	Sample Range
0	1	0-12	0-4

A person who scores 7 is 29 times more likely to assault someone; a score of 6 = 15.7 times, (and so on 5 = 3.17, 4 = 4.48, 3 = 2.79, 2 = 2.69, and 1 = 1.31). This patient scored 0 indicating no display of aggressive behaviour in the previous period of assessment. This would indicate little or no risk of aggression.

Family beliefs – Measure of Parenting Style (MOPS)

Domain	Mother	Father	Cumulative
Indifferent	1	1	2
Over Control	4	0	4
Abuse	1	4	5
Totals	6	5	11

Total Cumulative score of 11, out of possible 90; sample mean = 15: Sample range 0-88. The results indicate a low score in relation to the whole sample, but the patient was making reference to her real father, and not her stepfather. Jane spoke fondly of her biological father who was now suffering from severe vision impairment. Jane reported being sexually abused by her stepfather, having sex with him on 30 occasions over 1 month when she was only 13 years old, reporting this to the police and ending up in foster care. Her relationship with her mother was that of familiarity to the point whereby she would drink, smoke and smoke cannabis in front of her.

Feedback questionnaire (scale used from 1- 10 for each question)

Feedback Score	Score	Sample Mean	Score Range	Sample Range
Positive Scores	42	30	5 - 50	15 - 50
Negative Scores	16	16	-50 - 5	-35 – to -5
Total Score	26	16	-50 to +50	-15 to +40

The total score is obtained by subtracting the negative score from the positive score. The patient found the process positive and felt that it had helped her. There were aspects of her offence that she found difficult to discuss, and she was still struggling with the guilt aspects of this; reminders about it made her think of it more.

Global Assessment of Functioning (GAF) = 65 (sample mean = 59: Sample range 30-85)

GAF Score	Sample Mean	Score Range	Sample Range
61	59	0-100	30-85

A score of 61 (61-70 range) is consistent with the Brief Psychiatric Rating Scale (BPRS) score placing the patient in the some mild symptoms range, or some difficulty in social, occupational or school functioning, but generally functioning pretty well, has some meaningful interpersonal relationships (adapted directly from the **Global Assessment of Functioning**). Jane would regularly participate in sport or occupy herself with art activities, or doing her makeup and nails. She had a good relationship with other patients and staff, although some patients bullied her.

Impact of Events Scale specifically related to the offence or arrest:

PTSD Cluster	IES-R Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (8)	13	10	0-32	0-30
Avoidance (8)	14	12	0-32	0-30
Hyperarousal (6)	10	6	0-24	0-19
Total (22)	37	28	0-88	0-73

The patient reported continuing levels of intrusive thoughts and actively avoided talking about the event. Any reminders brought back strong waves of feeling about the incident, but in Jane's mind at times it felt like it hadn't happened, when people reminded her about it, she realised that it had. There was also some level of hyperarousal, feeling jumpy, easily startled and watchful or on guard. Another patient bated her on the fact that she had killed her son, which is one of the problems of the forensic environment; in that other patients can have strong antisocial behaviours, at times making it a less than therapeutic environment.

MINI (Suicidality)

Suicidality	Sample Mean	Score Range	Sample Range
5	4	0-33	0-23

(Low Risk < six; medium risk; > six; high risk > six)

Jane had described how she had attempted to use the electrical wiring in a broken light socket and inserted it in a glass of water with her fingers. Apparently it simply caused a short circuit in the system and had no effect. During her arrest, she had been rambling to the police about wanting someone to kill her, stating that the person who could shoot her would be a good person. Throughout the interviews Jane did say she still had fleeting thoughts about wanting to die.

Past Feelings and Acts of Violence (PFAV)

PFAV Score	Sample Mean	Score Range	Sample Range
7	9	0-34	1-31
Q6 Attacked family	Yes (1)		
Q7 Attacked non-family	Yes (1)		
Q8 Use of Weapon to harm	Yes (1)		
Q10 Non Violent Crime	Yes (1)		
Q11 Violent Crime	Yes (1)		
Q12 Have weapons in your home that you know how to use?	Yes (1)		

The Past Feelings and Acts of Violence (PFAV) has a cut off score of 5 as being potentially violent, but this tool also has specific notification that if answering yes to Q6 and Q7; Q8 or Q11 as reported above usual indicates the person is violent. Going by the results of the PFAV, although the score is just above the cut-off

score for identifying a violent person, the other additional positives for all of the violent person questions, indicates a high risk of future violence.

Post-Traumatic Stress Disorder Checklist - Civilian Version (PCL-C)

PTSD Cluster	PCL Scores	Sample Mean	Score Range	Sample Range	Gen Pop Scores
Re-experiencing (5)	17	12	5-25	5-25	9.2 (SD 4.2)
Avoidance (7)	27	16	7-35	7-34	12 (SD 5.7)
Hyperarousal (5)	17	11	5-25	5-21	8.2 (4.3)
Total	61	38	17-85	19-74	29.4 (SD 12.9)

The results above would indicate that the patient is suffering from current PTSD, experiencing symptoms across each cluster. It is apparent however that there is much higher score for the avoidance aspects of PTSD. It was notable that the patient would seem to dissociate from her offence, acting younger than her age, at an almost teenage level. The patient would avoid talking about her offence and avoid reminders of it. Jane would spend her day playing games, exercising, and keeping herself occupied. There was good contact with her parents by telephone. Jane talked about seeing her baby at night in her dreams and this would give her pleasure.

Recent Life Events

RLE Score	Sample Mean	Score Range	Sample Range
17	11	0-42	1-29

Most of the items identified had occurred in the last 12 months, but essentially related to her offence and the fact that her baby son and been killed, resulting in her arrest by the police and all the action that ensued thereof. There was also some expression of housing and financial difficulties.

Risk Assessment – Local Tool

Risk Score	Sample Mean	Score Range	Sample Range
7	6	0-28 + (other risks)	0-14

The patient has an overall moderate risk score, the main risk being the level of support upon anticipated upon discharge

TDQ Trait Dissociation Questionnaire

Dissociation: Symptom	Sample Mean	Score Range	Sample Range
Frequency = 26	24	0-38 (38 questions)	2-38
Total Frequency x intensity = 58	49	0-190 (5 x38)	2-127

The patient expressed a number of dissociative type symptoms like being unable to get angry and feeling emotionally numb giving an 'always' response of 5 to these questions. Although 22 other symptoms were identified they were all scored with 'rarely' a score of 2.

World Assumptions

This questionnaire is divided into 8 subscales and a cumulative total (which can be added to form 3 factors of Benevolence; :

Domains (Benevolence, Meaningfulness, Self-Worth)	Score	Mean Score	Score Range	Sample Range
Benevolence of People	6	16	4-24	6-23
Benevolence of World	11	16	4-24	4-24
Control	15	15	4-24	6-22
Justice	20	14	4-24	4-24
Random	12	14	4-24	4-22
Luck	4	15	4-24	4-24
Self-Control	16	17	4-24	8-24
Self-Worth	4	16	4-24	4-24

The 8 subscales can be used to summarise the patient's apparent view of the world and the data would indicate that Jane believes that whilst the world is barely benevolent, people are not. Jane indicated that she has bad share of luck, has a reasonable sense of control, but has low self-worth. A negative view of the world would indicate the patient may be suffering symptoms of PTSD or depression.

Summary

Jane was clearly psychotic when she carried out the act of killing her baby and afterward when her symptoms are under control there has been a realisation of the action of homicide whilst in a delusional state. Both the PCL and Clinician Administered PTSD Scale (CAPS) scores indicate a positive diagnosis of significant PTSD symptoms and the main cluster of symptoms were in the area of avoidance. Jane expressed feeling numb about her feelings for what has happened and would prefer to avoid thinking about it: Part of her treatment however is to participate in a victim empathy course, which she completed. Following a period of stabilisation Jane has now been released back into the community under a supervision order.

It is not uncommon in these cases in women who kill their children that they are released once their symptoms are under control, and this is due in part to the fact that the motive of such offences are closely related to a psychotic state, sometimes within the puerperal period of psychotic depression. Jane had experienced some abuse at an early age by her stepfather, and been taking a high use of cannabis. Other previous contacts with the mental health services provided evidence toward the defence of 'not guilty by reasons of insanity'. Patient's

expressing a bizarre delusion about their children of a religious nature should have their risks closely considered. The use of drugs and command hallucinations should elevate such risks. A history of violence as indicated by the attempted armed robbery as a young teenager should have also raised some alarms.

In each of the last three cases we have had issues with drugs (particularly cannabis) and paranoid psychosis. One strategy that could be taken within mental health care to reduce risk is to provide those with paranoid psychosis, or those with command hallucinations, with additional support with any substance abuse issues.

8.4 Attempted Homicide Male

Brief Summary and Overview:

Eddy presents as a man of average height and build, but with an intense worried look. He would keep to himself and pace the corridors for the whole day, unless he was lying in his room on his bed. His anxiety levels were so high that he was unable to relax, watch TV, or read. Eddy had powerful delusions that people were out to get him, particularly operatives of Al Qaida. He explains that when he is asleep he has nightmares about being in terrorist wars, and feels he has PTSD from these experiences. Even though the patient was on high doses of antipsychotic medication, it provided him with little relief of his symptoms and he was about to commence Electro Convulsive Therapy (ECT) over the coming weeks. Eddy had one of the highest scores on the Clinician Administered PTSD Scale (CAPS) of 90 and this would indicate extreme PTSD symptoms.

Eddy described numerous violent incidents that he had been involved in, or the victim of, throughout his lifetime. The first incident he describes is when 2 masked men broke into his house and beat him with baseball bats and he believes his illness started from there:

"I got bashed with a baseball bat and got a broken arm. Someone just attacked me I don't know why or who it was or nothing. They had a hood on their head, kicked in my door, ran in and bashed me with a bat and ran out again. I didn't report it to the police because I was worried about revenge attacks. They broke my arm in two places, they hit me in the legs, I put my arms up to protect my head and that's when they broke my arm with the bat. There were two people; they had masks on... that's what started all the trouble with my illness and everything'.

Audio recording reference DW A0285 4:00

In the interview I asked Eddy 'How many times has this happened to you?' and he replied:

'Oh, heaps of times. I reckon I've been mugged or assaulted at least 100 times in my life. I've always lived in really bad neighbourhoods. I've had knives thrown at me, been hit with sticks, been hit with bricks, broken bottles, all sorts of things. I've been physically punched kicked, but I gave as good as I got'.

DW A0285 6:00

There was another incident in which he was walking down the street where the nightclubs are located when 3 men attacked him and his friends for no reason and he struck out at one of the attackers and when he punched the alleged perpetrator, they fell and injured themselves. Apparently the person did not die from this incident:

"I injured someone. I was approached by 3 people who started trying to punch me; they were just strangers - just drunks the 3 of them. I hit one of them and he fell down and hit his head on a seat, on one of those park benches. Apparently he was injured in a couple of places. I read it in the paper the next day"

DW A0285 12:00

Over the years the patient's paranoia got worse in the community and he would be involved in many violent incidents, for example he describes how whilst drinking with his girlfriend in the park, someone in the group was playing a guitar and bashed him over the head with that guitar, so he attacked him back.

"We were sitting around drinking, we was all drunk and this bloke was playing a guitar and he was hitting me and my girlfriend with the guitar, so we hit him in the face. He stopped playing in a hurry. We was just all drunk on plonk, drinking in the park"

DW A0285 24:00

Eddy was also in a fight with another person and says he went home and got a weapon and stabbed the person in the leg with it.

"One day I stabbed someone in the thigh, cos' he kicked the shit out of me, so I went home and got a knife and stabbed him in the leg"

DW A0285 22:30

Eddy had been in and out of institutions and prisons most of his life. His initial major offence was taking a woman hostage in a car and making her drive him to what he felt was a safe place. Eddy had been taking amphetamines, but was also extremely paranoid from his psychosis; he states that he was running through the city centre from street to street trying to get away from the Al Qaida operatives he thought were after him. He was terrified for his life and simply jumped in the nearest car asking the woman to drive him to safety, however, essentially he was hijacking her car and would not allow her to leave, making the victim drive to a location of his choice. This is not his major offence, but was the cause of a period of imprisonment. Whilst in prison he was in the protection wing due to his illness and violence and was upset to be in the same unit with what he reported as a "child killer" who was apparently, according to Eddy, a multiple murderer of young girls. Following some conflict with this person, Eddy believed that the alleged murderer was out to kill him and had been sent by Al Qaida. At one of the yard breaks, he approached his victim stabbing him in the neck with a pen:

"It happened in jail, I've already been charged for it. It was about 2 and a half years ago. The guy was a serial killer. He tried to attack me in the yard, and I stabbed him in the throat with a biro, I remember stabbing him in the jugular vein, I stabbed him right there (pointing to the side of the neck). I told him he was a low life for killing those girls and that he doesn't deserve to be alive, then he said to me – well I'm going to kill you too. I was really sick at the time, it was going round and round in my head and I was really sick and I came out to lunch with the biro and

just rushed him in the yard. I was thinking he was sent from Bin Laden and everything”
DW A0285 25:30

As part of the Clinician Administered PTSD Scale (CAPS), one of the questions is ‘Where you frightened?’ and Eddy responded:

“Yes I was frightened. I thought I was going to get stuck by a biro or a knife or something like that. I was more frightened that I was going to kill him to be honest. I didn’t try to, but I nearly did though, another bit ‘that far’ (indicating a small space with his fingers) and I would have.”
DW A0285 27:00

The next question is ‘Where you horrified?’ and Eddy responded:

“Yes I was a bit. It was just the fact that I’d done it. I surprised myself too wherein I was ashamed of myself that I had done it, I wasn’t happy that I did it, I was very remorseful that it had happened. I try to steer all clear of all those sort of things. When I was younger, not so much these days, but when I was young I was in incidents every day you know, always in a fight, fights with mates, mates fighting with other mates. I’m not like that anymore though, I don’t get in trouble; I just make verbal threats”

Eddy recounts that the prison officers reckon that the victim deserved it, but the police were called and he admitted to his offence. Due to his increasing psychosis in prison he was admitted to our service.

Life Events Checklist (completed as part of the CAPS)

	Life Events Checklist	Happened to me	Witnessed it or Learned about it
1	Natural Disaster		
2	Fire or Explosion		
3	Transportation accident	1	
4	Serious accident	1	
5	Exposure to toxic substances	1	
6	Physical Assault	1	
7	Assault with a weapon	1	
8	Sexual Assault		
9	Other unwanted or uncomfortable sexual experience		
10	Combat or exposure to war		
11	Captivity		
12	Life threatening illness		
13	Severe human suffering		
14	Sudden violent death i.e. homicide suicide		
15	Sudden unexpected death of someone close to you	1	
16	Serious injury, harm, or death you caused to someone else	2	
17	Any other stressful event		
	Most Significant Event	Red	
	Second Most Significant Event	Orange	
	Third most significant event	Green	
	Total	8	0

The patient reported 8 major incidents and was asked to prioritise three of these. The most significant incident was the stabbing of a fellow inmate in prison in the neck with a pen. The second most significant incident was being bashed by men with baseball bats in his home. The third significant incident was breaking someone's neck in a fist fight outside a nightclub. There were many incidents discussed which included violence, but one less tangible issue were the nightmares of being in terrorist like wars for which he reports waking up feeling traumatised from these experiences. All of the incidents that were discussed seem serious and contained some element of violence. Eddy appeared to be in a state of hypervigilance throughout the day and had many other PTSD related symptoms as reported by the Clinician Administered PTSD Scale (CAPS).

Clinician Administered PTSD Scale (CAPS)

CAPS Scores (Frequency + Intensity combined scores – 17 items)

PTSD Cluster	CAPS Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (5) Cluster B 1-5	29	11	0-40	0-35
Avoidance (7) Cluster 6-12	34	17	0-56	0-46
Hyperarousal (5) Cluster D	27	9	0-40	0-27
Total	90	38	0-136	0-97

This was one of the highest Clinician Administered PTSD Scale (CAPS) scores in the cohort. The symptoms are spread across the range of PTSD domains. The patient reported the highest scores for repeated disturbing memories, disturbing dreams, loss of interest, and being superalert or watchful. There were 2 areas that were reported with no scores which were having physical reactions, and feeling as if his future would be cut short. Although no physical reactions were reported, this patient was in constant state of alertness and hyperarousal, with clear physical tensions. This would involve him pacing the corridors for the majority of the day. Such a physical response was not consciously related to the patient's trauma, but could well be a symptom of previous stressors or PTSD symptoms.

Considering the Risks:

Eddy had experience and committed violent acts across his lifespan. This related to his paranoia and stress, and he was not averse to using weapons at such times. The patient's illness was difficult to treat with medication and even ECT only provided limited benefit. The patient is now out in the community and if his illness is not monitored closely or he starts to abuse illicit substances, there is a significant chance that he will be involved in another violent act.

Risk Factors identified during interviews and reports:

Unique risks

- Institutionalised at an early age
- Numerous incidents of violence
- Long term paranoia – feels life is being threatened by gangs / Al Qaida
- Command hallucinations

History of Violence

- Believes he broke someone's neck at 17
- Numerous episodes of violence

- Hostage taking
- Stabbing people with pens / knives
- Random acts of violence

Social and Clinical Indicators

- Constantly agitated / nervous / pacing
- Reports high levels of trauma / anxiety
- Long term mental illness / institutionalisation
- Unstable relationships
- Few supports in the community
- Previous use of illicit substances

Primary Stressor:

The main stressor identified was the assault within the prison and the patient vacillated between regret and being glad that he did it. He expressed that he doesn't like violence, but had experienced it all his life. There seems to be a regular theme of paranoia that others are going to get him, and indeed from his previous behavioural schema and experiences this has been the case. The constant hypervigilance relates to previous traumas, the experiences and damage are also cumulative in nature.

Demographics

Eddy was a divorced Aboriginal and Torres Strait Islander Community male in his late 30's who left school at the age of 14 and lived alone. Eddy did not complete year 12 but did a course in Aboriginal Community Management level 3-4 and was on a disability pension. The approximate household income was between \$12-20,000 per annum. Eddy had difficulties learning to read and write, but had a basic level of skill. He had moved house around 10 times in his lifetime.

Health

Eddy was unable to carry out his usual daily activities for the whole month prior to admission and spent around half of the month (16 days) in bed most or all of the day. This was reflected in his current condition which was considered chronic. He had a high level of anxiety throughout the day and would pace up and down looking worried and concerned about people in his environment. He expressed few physical issues from the general health questionnaire naming mainly joint or back problems, with sexual problems that related to his medication. In the 12 months prior to admission he had seen many health professionals (n=10) including

a mental health team and psychiatrist (15 times). He was 180cm tall and considered himself to be overweight, but had a BMI within the slightly overweight range of 28. He began to smoke at the age of 8 years old and smoked around 40 cigarettes per day. Eddy's ongoing experience, as a youth and adult, of violence throughout his lifespan have resulted in various physical injuries but none that impaired his general lifestyle. His agitation and hypervigilance may be related to being on antipsychotic medications for more than a decade, which can result in tardive dyskinesia. These symptoms are often related to a constant pacing or shuffling, and other physical reactions such as hand tremors and stiffness, which were also reported.

Scores from various tools:

Aggression Questionnaire (Buss - Perry)

The results are broken down into the four factors as well as providing a total score. Comparisons are provided from the whole sample n=39, as well as the mean scores provided in the study by (Buss & Perry 1992).

Subscale Scores:

Domain	Score	Sample Mean	Score Range	Sample Range	Gen Pop Mean
Physical Aggression	36	23	9-45	10-45	24 (SD 7.7)
Verbal Aggression	8	13	5-25	6-21	15 (SD 3.9)
Anger	26	16	7-35	7-33	17 (SD 5.6)
Hostility	26	20	8-40	9-33	21 (SD 5.5)
Total	96	72	29-145	39-126	77 (SD 16.5)

The total mean score in a study of a large group of college students (n=1253) was 77.8 (SD 16.5) for males and 62 (SD 17) for females, suggesting that this patient has a higher than average tendency toward aggression.

Eddy has an aggression score in the upper range and scored more highly in all but the verbal aggression area. He scored highly for 'getting into fights more than the average person', having broken things, threatened people, flaring up quickly, feeling people are laughing at him, and being suspicious. It is notable that he scored lower on his verbal aggression, which may result in no warning signs being given before aggressive acts. So when he decides to attack someone, particularly with a weapon, the victim may not see it coming. The general sense from staff with this patient was that he had the potential to be very dangerous. Staff would take consideration into his past acts of aggression, but had a good relationship with him. The high score of 96 is consistent with the assessment of risk. He was streetwise, of average intelligence, and had a long experience and knowledge of the prison culture. There were times he would alert staff if he knew other patients had weapons / contraband or were at risk of inciting violence.

AUDIT (Alcohol Use Disorders Identification Test)

AUDIT Score	Sample Mean	Score Range	Sample Range
7	10	0-40	0-28

A cut off score for hazardous drinking is \geq eight (8) and the cut off score for problem drinking \geq twelve (12). This is a low score and would be considered to be in the normal range of drinking, but bordering on hazardous drinking. The patient has described episodes of violence whilst drinking, but this is likely due to mixing alcohol and other drugs. Although he reports a normal level of drinking in his recent past, he has described incidents in his younger years when he had been inebriated and this had resulted in episodes of aggression, making statements like 'we'd been on the plank'.

Smoking 5 question were asked about smoking habits

Have you smoked at least 100 cigarettes in your entire life? No (0), Yes (1)	Yes	35 of n=39 said yes
How old were you when you first began to smoke cigarettes regularly?	8	27 of n=39 smoked before 16, the average age being 15 (sample range 8-30)
Do you smoke cigarettes now? No (0), Yes regularly (1), yes occasionally (2)	Yes	31 of n=39 currently smoked
If "YES"; on average, about how many cigarettes a day do you smoke? Number of cigarettes:	40	Average Mean cigarette intake was 21 per day (sample range was 5-40)
If you used to smoke cigarettes but don't smoke now: About how many cigarettes a day did you smoke?	NA	Heavy smoker (sample range was 5-50)
How old were you when you quit?	NA	

Eddy had smoked from a very early age, which was not unusual for this cohort, but 8 years old seems to be particularly young to start smoking. He smoked almost double the average of the rest of the cohort and would be considered to be a heavy smoker.

Brief Psychiatric Rating Scale - BPRS (18 questions)

BPRS Score	Sample Mean	Score Range	Sample Range
67	34	0-126	18-67

(Brief Psychiatric Rating Scale (BPRS) score of 31 equates to 'mildly ill'; score of 41 equates to 'moderately ill'; score of 51 equates to 'markedly ill')

The score of 67 would place the patient well into the markedly ill range and this was consistent with his presentation. Eddy was still suffering from nightmares of being in terrorist wars, continued to be paranoid toward others, and had to be

regularly reassured that he was safe, both in the treatment being provided and within his environment.

Centre for Epidemiological Studies – Depression Questionnaire:

CES-D (score range = 0-60) this patient had a score of 24 indicating depression (sample mean = 11: Sample range 0-48: **A cut off score > sixteen (16)** is considered to have problems with depression).

Eddy often had a mask like expression. He would say that he was ok, but would rarely engage in conversation unless approached by others. Eddy’s life circumstances and experience of illness and violence were consistent with his slightly depressed outlook and symptoms. The patient was provided with ECT to alleviate his depression. There were times when Eddy would laugh during a conversation, but this would be brief, and it appeared that he had to make an effort to appear happy. The scores that were high related to trouble concentrating, everything was an effort, and poor appetite.

Childhood Trauma and Household Experience Questionnaire: CTQ

Theme	Score	Sample Mean	Score Range	Sample Range
Experiences involving drugs & alcohol; depression; suicidality and other family disturbances either personally or within the household (out of 20 adverse experiences).	15	8	0-20	1-17
Experience of Parent Domestic Violence	12	3	0-16	0-16
Physical abuse	7	4	0-8	0-8
Neglect	24	8	0-60	0-24
Emotional Abuse	20	8	0-20	0-20
Sexual Abuse	3	2	0-6	0-5
Total Score	81	33	0-130	4-87

Eddy had very high scores in some of the childhood trauma areas, particularly in relation to the violence his father expressed toward both his mother, and him. He also suffered not only physical violence but was noted to have the highest score for neglect, and emotional abuse. There was also some experience of sexual abuse. The role modelling of the father has clearly impacted on his life. Eddy attempted suicide twice, firstly at the age of 25 and then at 37.

Drug Use

The Childhood Trauma questionnaire also asks about illicit drug use:

How many times have you used illicit drugs	More than 100 times
How old were you when you first had illicit drugs	14 years
Have you ever injected illicit drugs	Yes

Eddy started using drugs at an early age, and as can be seen from the CIDI information below, this included cannabis, opioids, and amphetamines. There was also abuse of prescription drugs.

Composite International Diagnostic Interview

(CIDI Core version 2.1) Lifetime Scorer DSMIV-TR	Criterion Met	Age of Onset	Age of Recency	Recency
305.10 NICOTINE DEPENDENCE	Yes	16	39	Last 2 weeks
292.0 NICOTINE WITHDRAWAL	Yes	16	39	Last 2 weeks
304.00 OPIOID DEPENDENCE	Yes	26	35	More than a year ago
304.10 SEDATIVE DEPENDENCE	Yes	17	35	More than a year ago
304.30 CANNABIS DEPENDENCE	Yes	20	28	More than a year ago
304.40 AMPHETAMINE DEPENDENCE	Yes	17	34	More than a year ago
305.20 CANNABIS ABUSE	Partially met	28	30	More than a year ago
305.40 SEDATIVE ABUSE	Partially met	22	30	More than a year ago
305.50 OPIOID ABUSE	Partially met	22	30	More than a year ago
305.30 HALLUCINOGEN ABUSE	Yes	20	39	In the last year
305.70 AMPHETAMINE ABUSE	Partially met	37	37	More than a year ago
295 SCHIZOPHRENIA	Partially met	25	39	Last 2 weeks
296.41 BIPOLAR I DISORDER, MANIC, MILD	Yes	16	39	Last 2 weeks
300.21 PANIC DISORDER WITH AGORAPHOBIA	Partially met	12	39	Last 2 weeks
300.3 OBSESSIVE-COMPULSIVE DISORDER	Yes	22	39	Last 2 weeks
300.23 SOCIAL PHOBIA	Yes	9	39	Last 2 weeks
309.81 POSTTRAUMATIC STRESS DISORDER	Yes	17	39	6 months to 1 year ago
300.29B SPECIFIC PHOBIA, BLOOD- INJECTION-INJURY TYPE	Partially met	15	39	Last 2 weeks
300.29N SPECIFIC PHOBIA, NATURAL ENVIRONMENT TYPE	Partially met	14	39	Last 2 weeks
MMSE	26 out of 30			

CIDI Criterion met:

This patient had many issues around illicit substances, abusing a wide variety of drugs. This closely related to a high level of anxiety, phobias and post-traumatic stress disorder. There was also evidence of OCD, Bipolar, and Panic disorders. The nicotine withdrawal issues related to the unit being in the middle of a smoke free policy. It is notable that the patient’s main symptoms relate to paranoia and delusional beliefs, however schizophrenia was not indicated. This may have been related to bipolar disorder and long history of illicit substance use which is indicated above.

Dynamic Appraisal of Situational Aggression (DASA)

DASA Score	Sample Mean	Score Range	Sample Range
2	1	0-12	0-4

A person who scores 7 is 29 times more likely to assault someone; a score of 6 = 15.7 times, (and so on 5 = 3.17, 4 = 4.48, 3 = 2.79, 2 = 2.69, and 1 = 1.31).

The patient identified a positive result for sensitivity for perceived provocation and also negative attitudes. This is consistent with the expression of paranoia toward others. As the data only reports on the last 24 hours it would not capture the long term history of aggression, but reflects current behaviour. The benefits of this tool, allow you to systematically and empirically assess someone with a high risk of violence. If you use historical criterion to assess dangerousness then this Eddy would be considered extremely dangerous. However, if we review his contemporary behaviour through the DASA tool, it provides some objective feedback, allowing the clinical team to care for him in a less secure environment. Although Eddy often presented as agitated, we were able to move him out of the acute ward, due to our monitoring with this tool.

Family beliefs – Measure of Parenting Style (MOPS)

Domain	Mother	Father	Cumulative
Indifferent	0	12	12
Over Control	2	12	14
Abuse	0	15	15
Totals	2	39	41

Total Cumulative score of 41, out of possible 90; sample mean = 15: Sample range 0-88. There is an extreme contrast between the parenting styles of the mother and father. The father appears have been abusive in all areas and this is consistent with the scores and feedback provided in the childhood trauma questionnaire. Eddy's father scored highly for almost every area of indifference, over controlling and physical abuse.

Feedback questionnaire (scale used from 1- 10 for each question)

Feedback Score	Score	Sample Mean	Score Range	Sample Range
Positive Scores	33	30	5 - 50	15 - 50
Negative Scores	19	16	-50 - 5	-35 – to -5
Total Score	14	16	-50 to +50	-15 to +40

The total score is obtained by subtracting the negative score from the positive score. The patient found the process more positive than negative, but still expressed some anxiety about the process. Eddy found the interview supportive and that the process was interesting and helpful to him. His main concern was about others knowing about him, and what the interviewer might think about him. He also found the process demanding.

Global Assessment of Functioning (GAF) = 65 (sample mean = 59: Sample range 30-85)

GAF Score	Sample Mean	Score Range	Sample Range
30	59	0-100	30-85

A score of 30 (21-30 range) reflects the high Brief Psychiatric Rating Scale (BPRS) score placing the patient in the Behaviour is considerably influenced by delusions or hallucinations or serious impairment in communication or judgment range, or inability to function in almost all areas(adapted directly from the **Global Assessment of Functioning**). This patient had a chronic condition and remained on the acute ward for a lengthy period due to symptom level and considered dangerousness. Eddy did not appear phased by the aggression within his environment, and coped with incidents by others on the acute ward well.

Impact of Events Scale specifically related to the offence or arrest:

PTSD Cluster	IES-R Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (8)	27	10	0-32	0-30
Avoidance (8)	30	12	0-32	0-30
Hyperarousal (6)	16	6	0-24	0-19
Total (22)	73	28	0-88	0-73

Eddy had the highest score for the impact of event scale. This questionnaire is asked in relation to the offence and arrest and how the person has PTSD symptoms around this in the last 7 days. It is apparent that the patient has extreme and current symptoms around his offence and arrest, scoring highly in all areas, but mainly in the area of intrusive thoughts and avoidance. The scores are consistent with the patient's behavioural symptoms of pacing throughout the day, and appearing on edge.

MINI (Suicidality)

Suicidality	Sample Mean	Score Range	Sample Range
5	4	0-33	0-23

(Low Risk < six; medium risk; > six; high risk > ten)

The patient had feelings about committing suicide in the last month and had attempted suicide in the past.

Past Feelings and Acts of Violence (PFAV)

PFAV Score	Sample Mean	Score Range	Sample Range
13	9	0-34	1-31
Q6 Attacked family	Yes (1)		
Q7 Attacked non-family	Yes (1)		
Q8 Use of Weapon to harm	Yes (1)		
Q11 Violent Crime	Yes (1)		

The Past Feelings and Acts of Violence (PFAV) has a cut off score of 5 as being potentially violent, but this tool also has specific notification that if answering yes to Q6 and Q7; Q8 or Q11 as reported above usual indicates the person is violent. The patient also identified that when they get angry they get a weapon (Q4), and have caused injuries in fights (Q5). The results indicate a violent approach and history of aggression.

Post-Traumatic Stress Disorder Checklist - Civilian Version (PCL-C)

PTSD Cluster	PCL Scores	Sample Mean	Score Range	Sample Range	Gen Pop Scores
Re-experiencing (5)	19	12	5-25	5-25	9.2 (SD 4.2)
Avoidance (7)	19	16	7-35	7-34	12 (SD 5.7)
Hyperarousal (5)	18	11	5-25	5-21	8.2 (4.3)
Total	56	38	17-85	19-74	29.4 (SD 12.9)

The results above would indicate that the patient is suffering from current PTSD, experiencing symptoms across each cluster. Whilst this questionnaire asks about symptoms in the last week, the Clinician Administered PTSD Scale (CAPS) asks about symptoms over the past month. This is a brief questionnaire but still indicates that the patient has current symptoms of PTSD, as the cut off score is 45, and the patient has a score of 56.

Recent Life Events

RLE Score	Sample Mean	Score Range	Sample Range
16	11	0-42	1-29

The areas of family deaths and family illness were a main concern and ongoing distress. The patient’s current illness was another key factor.

Risk Assessment – Local Tool

Risk Score	Sample Mean	Score Range	Sample Range
9	6	0-28 + (other risks)	0-14

The patient has an overall high risk score of 9, the main risk being around response to treatment, ongoing illness and lack of supports in the community.

TDQ Trait Dissociation Questionnaire

Dissociation:

Symptom	Sample Mean	Score Range	Sample Range
Frequency = 19	35	0-38 (38 questions)	2-38
Total Frequency x intensity = 50	113	0-190 (5 x38)	2-127

The patient expressed a number of dissociative type symptoms of dissociation like not being able to get angry about things that should annoy; feeling more than one person; living in a different world; mind is divided; feeling distant from emotions; mood changes; not belonging and feeling that the world is unreal and strange. The patient identified 35 out of a possible 38 areas of dissociation, and many of these at high frequency and intensity rates.

World Assumptions

This questionnaire is divided into 8 subscales and a cumulative total (which can be added to form 3 factors of Benevolence; :

Domains (Benevolence, Meaningfulness, Self-Worth)	Score	Mean Score	Score Range	Sample Range
Benevolence of People	22	16	4-24	6-23
Benevolence of World	24	16	4-24	4-24
Control	19	15	4-24	6-22
Justice	16	14	4-24	4-24
Random	4	14	4-24	4-22
Luck	24	15	4-24	4-24
Self-Control	23	17	4-24	8-24
Self-Worth	9	16	4-24	4-24

The 8 subscales can be used to summarise the patient's apparent view of the world and the data would indicate that he believes the world is benevolent, that he has bad share of luck and feels a lack of control. A negative view of the world would indicate the patient may be suffering symptoms of PTSD. The patient had a very positive view of the world and people giving each item almost full marks. They also felt that they were very much in control and that things did not happen at random. They indicated an almost full score for self-control, and had a low self-worth. This profile would match the patient's diagnosis of paranoid schizophrenia whereby they are suspicious about the world around them and see a high need to be in control of their environment and what is going on around them. It was helpful that the person had a positive view of people around them, but it practically contradicts the diagnosis and hypervigilance reported in other areas.

Summary

Eddy started life with a bad relationship with his father and he started experiencing violence at an early age. There doesn't seem to be a period in Eddy's life that he had not taken part or been the victim of violence, resulting in episodes in both correctional and mental health institutions. He almost embodies the image of hypervigilance with his constant pacing, and intermittent paranoid thoughts. It is an example of how symptoms of post-traumatic stress disorder symptoms and mental health symptoms appear to entwine and it is difficult to separate the two. Eddy himself identified that he was suffering from post-traumatic stress, but related this to dreams he had about being in conflicts of war. It is possible that his life of violence has left him in a place where his traumatic symptoms have been embedded into his psychotic thinking, depression and anxiety. How you separate these symptoms out when provide treatment has not yet been explored and requires further research.

8.5 Attempted Homicide Female

Brief Summary and Overview:

Marilena is a woman in her mid-50's who attempted to kill her partner by stabbing him multiple times over the body and in the neck. The first stab wound was whilst the victim was asleep. It was her belief at the time that her partner was going to kill her, as she stated that he had emotionally abused her and thrown her about on many occasions. Marilena presents as a woman of short stature and emaciated, part of her current mental and physical condition was anorexia and depression. It was determined by the court that she was so unwell that she was found unfit to plead / instruct, but was later found not guilty under the Criminal Law Consolidation Act 1935 (Mental Impairment provisions section 269) (D.O.J 1935). In South Australia, if found not guilty by reason of insanity, the person is given a detention / or licence order for a length of time, as if they were guilty. For example attempted murder (section 270A: subsection 3) or even serious harm (section 23) can receive up to 25 years or even life. There had been many admissions to psychiatric care for anxiety and depression prior to the offence. Marilena commented that she suffers panic attacks and found it difficult to eat. The clinical presentation was consistent with her history, but there were reports of strong personality traits in the area of passive aggression and dependency issues. Following Marilena's arrest, her anorexia symptoms worsened, whereby she refused to eat and had to be force fed through a nasal tube. At 34 kg, her weight had become life threatening and the prognosis seemed poor. Her depression worsened after the death of her mother approximately 2 years before.

Marilena claimed that her partner had assaulted her in the past and was reportedly a heavy set man. She reports the incident as if she were under attack, but the police and court reports indicate that her partner was asleep at the time and was stabbed approximately 10 times, many of them being defensive wounds. According to Marilena, prior to the offence she had called her friend in order to protect her, but her friend and neighbour then went home. The attempted murder occurred in the middle of the night. It is possible that the fear of being killed could have been part of her psychotic depression and anxiety disorder, but regardless of the situation it was Marilena's belief that she was going to be killed if she did not act.

'At one stage I felt it wasn't real, it was surreal My heart was beating fast... and I couldn't talk about it... and I couldn't cry, because I just didn't want to remember anything. It hurt too much. I couldn't talk to anyone about it until today.'

DW A091 14:00

Marilena finds it difficult to remember any detail of the event. As part of the Clinician Administered PTSD Scale (CAPS) tool, the patient is asked to discuss

each of the 17 PTSD symptoms in the DSMIV-TR in turn. When asked 'Have you ever had unwanted memories of this event' she replied;

"I don't get into them, like when they just start to come into my head I block them off, because if I don't my body just goes out of control... they're frightening. It's not so much what I did; it's just thinking about putting a knife even in an animal makes me feel sick I can't see how I could do such a thing to a person".

DW A091 21:00

Marilena like other patients had difficulty in remembering the event, and it is only when she is reading the lawyers and court reports that she can remember, and even then, she struggles to read them as it creates horror and disbelief. When she thinks about the offence she doesn't allow herself to remember the incident, and as far as she is prepared to go is thinking about stabbing someone, which then is enough for her to stop thinking about it. Marilena also commented that she is unsure whether the incident really happened, or if she is really in hospital and that the whole thing seems surreal. The emotions and memories are easily triggered on a daily basis by a person that may be the same build as her husband, or when watching television and the home looks similar to hers, or even a dog that looks like hers. An even more detached trigger might be seeing a bunch of flowers that use to be in her home. The triggered memories could often lead to panic attacks involving her heart beating faster, a physical 'surge of anxiety', sweating, and shaking. There was clear evidence of avoidance like not wanting to talk to others about it and she stated it was because of the reaction of her body. Marilena stated that she avoided 'the whole episode, I feel I just can't deal with it', and would do things like turn the television over to avoid thinking about it, or doing some embroidery. Although Marilena was unable to remember the event stating that 'it was all a blur', saying that although she cannot actually remember she visualises it:

'What I do sort of visualise a lot, is me with a knife and actually stabbing my husband Because that's what I've done and it gets me so upset'.

DW A091 43:00

Following regular intake of medication and psychological support for her depression, Marilena reacted positively to her treatment over time, approximately a 6 month period, and a dramatic change in both her physical and mental state occurred. The patient has now been discharged to supported accommodation in the community and is supported by the Forensic Community Team. This is a team that provides advice to local mental health teams about forensic risks.

Life Events Checklist (completed as part of the CAPS)

	Life Events Checklist	Happened to me	Witnessed it or Learned about it
1	Natural Disaster		
2	Fire or Explosion		
3	Transportation accident		
4	Serious accident		
5	Exposure to toxic substances		
6	Physical Assault	1	
7	Assault with a weapon	1	
8	Sexual Assault	1	
9	Other unwanted or uncomfortable sexual experience		
10	Combat or exposure to war		
11	Captivity		
12	Life threatening illness		
13	Severe human suffering		
14	Sudden violent death i.e. homicide suicide		
15	Sudden unexpected death of someone close to you	1	
16	Serious injury, harm, or death you caused to someone else	1	
17	Any other stressful event	1	
	Most Significant Event	Red	
	Second Most Significant Event	Orange	
	Third most significant event	Green	
	Total	6	0

Marilena had experienced 6 areas of trauma; however we only focused on 2 key events. The offence was identified as the main stressor, and the patient discussed how the memories were intrusive through various triggers. Her main strategy for managing these symptoms was to avoid the memories by thought blocking techniques, which were supported by psychological interventions from the forensic psychologist. The intervention was to prevent the thoughts sending her into a panic attack. The hyperarousal symptoms are clear in that they resulted in panic attacks as well as various physiological reactions. These included difficulty in concentrating, difficulty with sleep, and feeling angry to the point by whereby she would feel she was shaking. The inability to eat can also be linked to both the anxiety levels and depression.

Clinician Administered PTSD Scale (CAPS)

CAPS Scores (Frequency + Intensity combined scores – 17 items)

PTSD Cluster	CAPS Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (5) Cluster B 1-5	31	11	0-40	0-35
Avoidance (7) Cluster 6-12	46	17	0-56	0-46
Hyperarousal (5) Cluster D	20	9	0-40	0-27
Total	97	38	0-136	0-97

There were a number of high scores of 7 in the following symptom areas; repeated disturbing memories; feeling very upset with reminders; having physical reactions (and in this case leading to panic attacks), and avoiding thinking about it; trouble remembering the event, and feeling distant and cut off from others. Marilena also thought her life would be cut short estimating she would live another 5 years, but put this down mainly to her current physical health. The main area of symptoms was in the avoidance area scoring the highest score for the sample population. Marilena had the highest overall PTSD score using the Clinician Administered PTSD Scale (CAPS) of the population considered in this study.

Considering the Risks:

The conditions of the offence relate specifically to her relationship with her partner and the level of anxiety and depression this caused. Provided the mental health issues are supported and kept under control, the risk to others would be low. Marilena had developed a good relationship with her partner during her stay with us and she would be living in supported accommodation in the community, away from her partner. The inability to recall the offence could be problematic, as it is difficult to explore the circumstances of the offence with her, or to address treatment. There were issues around Marilena's feelings about the motives of others, often stating that nurses were against her, and were taking actions in order to mistreat her. This is consistent with depression. Such a view may result in her reacting in a similar way to a future carer, if the symptoms were to go untreated. The conditions of the offence, in that her partner was sleeping at the time of the offence would indicate that he is still at risk, if Marilena's illness were to deteriorate. The courts considered the relationship with her partner and the risk of deterioration as part of her sentencing and controlled release into the community. Marilena is currently living back in the community away from her partner. She is extremely remorseful about her offence; *"I feel guilty for what I've done: about hurting someone so badly. If I thought of hurting an animal I'd go crazy, let alone for what I did. It's too hard to live with in my head"*. DW A092 34:00

Whilst depression is not thought of as a major risk when considering forensic risks, people who are in a very low or psychotic depression can become both homicidal and suicidal. At times, both conditions interact in the form of homicide followed by suicide.

Risk Factors identified during interviews and reports:

Unique risks

- Having used a weapon on her partner whilst he was asleep
- Partner is still involved with her, although in separate accommodation

History of Violence

- There was no history of aggression
- A passive / aggressive method of dealing with anxiety
- Difficulties with carers believing that they disliked her.

Social and Clinical Indicators

- Long term depression
- Long term anxiety disorders
- May react in a fight or flight mode in harming another
- Dissociative state – as if in a dream - surreal

Primary Stressor:

The offence of attempting to kill her partner was the primary stressor, but the patient found that her memories of the event were a blur and the most she could remember was meeting with her friend earlier in the evening. There were mental health issues for the previous 12 years that resulted in a number of psychiatric admissions. It is again difficult to discern the previous symptoms from the current symptoms in that Marilena had suffered from high levels of anxiety prior to her admission, she did report however that her symptoms had increased by around 60% since admission to both prison and hospital. Her hypervigilance has also increased believing that even someone walking near her might hit her (DW 092 24:00), although she did spend much of her time on the acute forensic ward, where there were episodes of violence and many of the patients had been admitted as a result of violent behaviour. The secondary stressor that was cited was the death of her mother and she stated *'practically every night I dream about my mother'*

DW 092 42:00.

Demographics

Marilena was a white Australian who has been married for 35 years and was a lady in her mid-50's, which is a late age to have committed a first offence, or an act of violence. She had a long term relationship with her partner with whom she had one child. They had an income between \$40'000 - \$50'000 per year for the household. Marilena left school at the age of 16 but did not complete year 12. She moved house approximately 3 times, and there were no extraordinary aspects of her demographics.

Health

There had been a history of mental health issues for the previous 12 years, which had worsened since the death of her mother 2 years before. Surprisingly, she expressed no current health problems, but had experienced some in the past such as psoriasis, bowel disorder and chronic fatigue, but claimed not to have them now. Most of these health issues may have been related to her anxiety disorder. The most immediate problem from a clinical perspective was the fact that she had reached a weight of 34 kg with a height of 1.57 cm, giving a BMI of only 14. At the early stages of admission, Marilena completely refused to eat and had to be fed through a naso-gastric tube. This confrontative and strict approach led to later compliance and recovery, assisted with changes in medication to alleviate depression and anxiety.

Scores from various tools:

Aggression Questionnaire (Buss - Perry)

The results are broken down into the four factors as well as providing a total score. Comparisons are provided from the whole sample n=39, as well as the mean

<i>Subscale Domain</i>	<i>Scores:</i>	Score	Sample Mean	Score Range	Sample Range	Gen Pop Mean
Physical Aggression		13	23	9-45	10-45	24 (SD 7.7)
Verbal Aggression		11	13	5-25	6-21	15 (SD 3.9)
Anger		14	16	7-35	7-33	17 (SD 5.6)
Hostility		21	20	8-40	9-33	21 (SD 5.5)
Total		59	72	29-145	39-126	77 (SD 16.5)

The total mean score in a study of a large group of college students (n=1253) was 77.8 (SD 16.5) for males and 62 (SD 17) for females, suggesting that this patient has a low risk of aggression with a total score of 59. It was noted that the hostility score is higher than the other three areas indicating that the patient may harbour a level of hostility but is not expressing it. This matched the patient's general persona of appearing weak, timid and anxious, yet she expressed that sometimes she gets angry to the point whereby she is shaking. Marilena's highest score was

in the anger range 'I sometimes feel like a powder keg ready to explode' for which she scored a maximum of 5. It may indicate that she would benefit from expressing her anger in a socially acceptable way rather than bottling it up, avoiding incidents like her assault with a knife on her partner. Marilena identifies many of her issues from a long term abusive relationship with her partner, but this is difficult to corroborate.

AUDIT (Alcohol Use Disorders Identification Test)

AUDIT Score	Sample Mean	Score Range	Sample Range
3	10	0-40	0-28

A cut off score for hazardous drinking is >= eight (8) and the cut off score for problem drinking >= twelve (12). This is a low score and would be considered to be in the normal range of drinking and is unlikely to cause any health problems. Alcohol was not involved in her offence, although she stated that her partner would drink and then become abusive.

Smoking 5 question were asked about smoking habits

Have you smoked at least 100 cigarettes in your entire life? No (0), Yes (1)	Yes	35 of n=39 said yes
How old were you when you first began to smoke cigarettes regularly?	17	27 of n=39 smoked before 16, the average age being 15
Do you smoke cigarettes now? No (0), Yes regularly (1), yes occasionally (2)	No	31 of n=39 currently smoked
If "YES"; on average, about how many cigarettes a day do you smoke? Number of cigarettes:	NA	Average Mean cigarette intake was 21 per day (sample range was 5-40)
If you used to smoke cigarettes but don't smoke now: About how many cigarettes a day did you smoke?	10	Heavy smoker (sample range was 5-50)
How old were you when you quit?	23	Just stopped

Marilena has smoked in her lifetime, but gave up over 30 years before. There are not many patients admitted to the forensic service who do not currently smoke.

Brief Psychiatric Rating Scale - BPRS (18 questions)

BPRS Score	Sample Mean	Score Range	Sample Range
29	34	0-126	18-67

(Brief Psychiatric Rating Scale (BPRS) score of 31 equates to 'mildly ill'; score of 41 equates to 'moderately ill'; score of 51 equates to 'markedly ill')

The score of 29 would place the patient in the mildly ill range. The highest score area being in the domain of somatic concerns and anxiety. Some reports indicated that behaviours were personality related, which may account for the low scores here.

Centre for Epidemiological Studies – Depression Questionnaire:

CES-D (score range = 0-60) this patient had a score of 40 indicating severe depression (sample mean = 11: Sample range 0-48: **A cut off score > sixteen (16)** is considered to have problems with depression).

The depression questionnaire score matches Marilena's history of depression and anxiety and reflects the current presentation. This mental health issue is most apparent in her anorexic behaviour, and the reluctance to cooperate with requests. Marilena's behaviour has been reported by some as passive aggressive and personality related.

Childhood Trauma and Household Experience Questionnaire: CTQ

Theme	Score	Sample Mean	Score Range	Sample Range
Experiences involving drugs & alcohol; depression; suicidality and other family disturbances either personally or within the household (out of 20 adverse experiences).	4	8	0-20	1-17
Experience of Parent Domestic Violence	0	3	0-16	0-16
Physical abuse	1	4	0-8	0-8
Neglect	0	8	0-60	0-24
Emotional Abuse	1	8	0-20	0-20
Sexual Abuse	0	2	0-6	0-5
Total Score	6	33	0-130	4-87

The low score of 6 indicate a reasonably trouble free childhood. The only issues that scored positively was a previous suicide attempt (2 years prior to the offence) and living with someone who had an alcohol problem. One of the lowest scores in the group, which had a sample mean of 33.

Drug Use

The Childhood Trauma questionnaire also asks about illicit drug use:

How many times have you used illicit drugs	No
How old where you when you first had illicit drugs	Never
Have you ever injected illicit drugs	No

The patient reported that she had never tried illicit drugs. There were few patients within the forensic group that reported zero drug use. Neither alcohol, nor drugs are indicated as an issue in the offence.

Composite International Diagnostic Interview

(CIDI Core version 2.1) Lifetime Scorer DSMIV-TR	Criterion Met	Age of Onset	Age of Recency	Recency
296.41 BIPOLAR I DISORDER, MANIC, MILD	Yes	33	55	Last 2 weeks
300.4 DYSTHYMIC DISORDER	Partially met	33	55	Last 2 weeks
309.81 POSTTRAUMATIC STRESS DISORDER	Yes	54	55	Last 2 weeks
300.01 PANIC DISORDER WITHOUT AGORAPHOBIA	Partially met	15	55	Last 2 weeks
300.29B SPECIFIC PHOBIA, BLOOD-INJECTION-INJURY TYPE	Yes	7	55	1 month to < 6 months ago
300.11 CONVERSION DISORDER	Yes	30	55	Last 2 weeks
Mini Mental State Examination				30 out of 30

CIDI Criterion met:

The patient reported a number of issues since the age of 33, over a decade prior to the offence. The key areas of health issues were around mood disorders, but PTSD was also indicated since the time of the offence i.e. at the age of 54, the period following the offence. The CIDI identifies that there was a problem with Panic Disorder from around the age of 15, a common time for anorexia symptoms to appear. Marilena scored 30 out of 30 on her Mental State Examination indicating she has no current problems with her ability to do this test, indicating good orientation to time, place and person.

Dynamic Appraisal of Situational Aggression (DASA)

DASA Score	Sample Mean	Score Range	Sample Range
0	1	0-12	0-4

A person who scores 7 is 29 times more likely to assault someone; a score of 6 = 15.7 times, (and so on 5 = 3.17, 4 = 4.48, 3 = 2.79, 2 = 2.69, and 1 = 1.31). Marilena scored 0 which indicates no risk in the past 7 days. Marilena was highly unlikely to be aggressive toward anyone, and more likely to direct her anger inwardly refusing to eat, and at times refusing to cooperate with directions from clinical staff. There were times when she would throw herself to the floor, but the intervention would be to treat this as a behavioural issue and ask her to get up in her own time.

Family beliefs – Measure of Parenting Style (MOPS)

Domain	Mother	Father	Cumulative
Indifferent	0	0	0
Over Control	4	0	4
Abuse	0	0	0
Totals	4	0	0

Total Cumulative score of 4, out of possible 90; sample mean = 15: Sample range 0-88. This is a low score indicating that there were no issues in childhood. Unusually the only positive scores were in the 'over controlling / over protective' range from her mother's side. This would classically fit with the presentation of anorexia as a way of exerting control in response to her perception of her mother's over control / overprotectiveness.

Feedback questionnaire (scale used from 1- 10 for each question)

Feedback Score	Score	Sample Mean	Score Range	Sample Range
Positive Scores	35	30	5 - 50	15 - 50
Negative Scores	22	16	-50 - 5	-35 – to -5
Total Score	13	16	-50 to +50	-15 to +40

The total score is obtained by subtracting the negative score from the positive score. The patient found the process partially distressing, but overall scored it as a positive experience. Whilst there was some distress experience revisiting the issues of concern, the patient found that the process was supportive, interesting and felt better having discussed the issues.

Global Assessment of Functioning (GAF) = 65 (sample mean = 59: Sample range 30-85)

GAF Score	Sample Mean	Score Range	Sample Range
70	59	0-100	30-85

A score of 70 (41-50 range) matches the Brief Psychiatric Rating Scale (BPRS) score placing the patient in some mild symptoms range (e.g., depressed mood and mild insomnia) or some difficulty in social, occupational, or school functioning (e.g. occasional truancy, or theft within the household), but generally functioning pretty well, has some meaningful relationships (adapted directly from the **Global Assessment of Functioning**). Other than the refusal to eat and resistance with cooperation the patient was capable of caring for herself.

Impact of Events Scale specifically related to the offence or arrest:

PTSD Cluster	IES-R Scores	Sample Mean	Score Range	Sample Range
Re-experiencing (8)	26	10	0-32	0-30
Avoidance (8)	26	12	0-32	0-30
Hyperarousal (6)	19	6	0-24	0-19
Total (22)	71	28	0-88	0-73

Marilena scored close to the maximum score for this questionnaire. The questionnaire specifically asks the patient to focus on the past 7 days in relation to thinking about the offence or arrest. The scores here match those of the Clinician Administered PTSD Scale (CAPS) and PTSD checklist Civilian Version (PCL-C) indicating that there is a lot of PTSD symptoms, scoring the maximum score of 4 =

'Extreme' for many. One symptom that was absent in this case was 'I had dreams about it'. Also there was a low score of 1 = 'I felt irritable and angry'. Again the responses indicate an inability to think about it scoring 4 = 'Extreme' for I tried not the think / talk about it. Also scoring 4 for I felt it hadn't happened or wasn't real.

MINI (Suicidality)

Suicidality	Sample Mean	Score Range	Sample Range
11	4	0-33	0-23

(Low Risk < six; medium risk; > six; high risk > ten)

The scoring for this too is weighted by questions, for example question 3 'Have you thought about suicide in the past month' scores 6. And in your lifetime did you ever make a suicide attempt scores 4. The score of 11 indicates the patient is at risk of suicide. Marilena was currently engaged in starving herself, which is considered a type of indirect self-destructive behaviour.

Past Feelings and Acts of Violence (PFAV)

PFAV Score	Sample Mean	Score Range	Sample Range
6	9	0-34	1-31
Q5 Ever Caused Injury?	Yes (1)		
Q6 Attacked family?			
Q8 Use of Weapon to harm?	Yes (1)		
Q11 Violent Crime	Yes (1)		

The Past Feelings and Acts of Violence (PFAV) has a cut off score of 5 as being potentially violent, but this tool also has specific notification that if answering yes to Q6 and Q7; Q8 or Q11 as reported above usual indicates the person is violent. So Marilena would score positively as a person of potential violence. The fact that these acts have already been committed, even though it was one incident, the risk is considered positive using this tool.

Post-Traumatic Stress Disorder Checklist - Civilian Version (PCL-C)

PTSD Cluster	PCL Scores	Sample Mean	Score Range	Sample Range	Gen Pop Scores
Re-experiencing (5)	22	12	5-25	5-25	9.2 (SD 4.2)
Avoidance (7)	34	16	7-35	7-34	12 (SD 5.7)
Hyperarousal (5)	18	11	5-25	5-21	8.2 (4.3)
Total	74	38	17-85	19-74	29.4 (SD 12.9)

The results above would indicate that the patient is suffering from severe current PTSD and experiencing symptoms across each cluster. The score is consistent with the Clinician Administered PTSD Scale (CAPS), and the Impact of Event scale indicating high scores in all three tools.

Recent Life Events

RLE Score	Sample Mean	Score Range	Sample Range
8	11	0-42	1-29

The score is relatively low indicating only a few events in the last 12 months out of a possible 21 (x2). Most events related to the current offence and ensuing arrest, for example the highest score of 2 (which means 'still affects me') was for the police / court contact. There were no other major events identified.

Risk Assessment – Local Tool

Risk Score	Sample Mean	Score Range	Sample Range
6	6	0-28 + (other risks)	0-14

The patient has an average overall risk score for the group, the main risk being identified in the area of response and attitude to treatment, making up 4 out of the 6. The risk of harm to self and others was assessed as 0. The only other positive scores were around support and functioning. To summarise the patient is considered as low risk.

TDQ Trait Dissociation Questionnaire

Dissociation: Symptom	Sample Mean	Score Range	Sample Range
Frequency = 19	36	0-38 (38 questions)	2-38
Total Frequency x intensity = 50	84	0-190 (5 x38)	2-127

The patient expressed a number of dissociative type symptoms, scoring a high score in this assessment. The areas that scored highly (4 = mostly) are; I feel as if other people live in a different world, I have problems remembering important details of stressful events; I feel emotionally numb; I feel that other people, objects and the world around me are not real; and my memory is patchy. The two highest scores (5 = Always) were for I feel like I don't belong; and the world seems unreal and or strange. All such symptoms are expressed by patients with PTSD.

World Assumptions

This questionnaire is divided into 8 subscales and a cumulative total (which can be added to form 3 factors of Benevolence; :

Domains (Benevolence, Meaningfulness, Self-Worth)	Score	Mean Score	Score Range	Sample Range
Benevolence of People	14	16	4-24	6-23
Benevolence of World	14	16	4-24	4-24
Control	16	15	4-24	6-22
Justice	8	14	4-24	4-24
Random	12	14	4-24	4-22
Luck	7	15	4-24	4-24
Self-Control	16	17	4-24	8-24
Self-Worth	8	16	4-24	4-24

The 8 subscales can be used to summarise the patient's apparent view of the world and the data would indicate that she believes the world and people are generally benevolent, but it is unjust, scoring only 7 in this area. The patient scored low in two areas believing she has a bad share of luck and feels a lack of control. A negative view of the world would indicate the patient may be suffering symptoms of PTSD and depression.

Summary

Marilena had never been violent prior to her offence and would find the idea of hurting another person upsetting. She is incredulous at the idea that she could actually stab someone, believing she couldn't even hurt an animal. A set of circumstances occurred however that led her almost killing her partner whilst he was asleep, the wounds not killing him, but had resulted in around 10 serious wounds, and a heart attack due to the immediate terror of the event. Marilena finds it difficult to think about the offence, and indeed actively avoids both talking about it and resists working through her feelings and fears of what has happened. This is an example of how the PTSD suffered by the perpetrator may go untreated and the individual is released back into the community. The main focus of treatment is the depression and the amelioration of risk through geographical separation of the victim and perpetrator. Working through the offence with Marilena may assist her come to terms with her actions and help prevent future acts of aggression.

Notes:

CHAPTER 9

DISCUSSION

9. Discussion

This chapter will provide an overview of the study, drawing together the themes and data whilst reflecting on the experiences of the author. It will discuss the need to clinically measure PTSD in forensic mental health. Effectively assessing PTSD and Trauma symptoms will assist with risk assessment and treatment. The aim of these clinical interventions is to reduce recidivism, future risk, and promote successful rehabilitation of offenders. In order to remediate identified risks, some areas of change in practice are recommended, particularly in relation to offence work and emotional recovery. Firstly we will look at the significance of the findings of this research followed by a discussion and then consider the implications for practice.

9.1 Significance of Findings

This is the first time that Post-Traumatic Stress Disorder (PTSD) has been researched in the South Australian Forensic Mental Health population. It builds on the research of others such as the study of PTSD in the Adelaide Women's Prison (n=43), which examined the frequency of PTSD in female prisoners (Raeside 1994). Dr Raeside's research demonstrated that there is a high frequency of PTSD in correctional environments with 88% of women prisoners having experienced significant trauma in their lives, with 81% suffering from a severe form of PTSD. The study also looked at other co-morbid disorders such as depression, diagnosing this in 89% of the same cohort. Another local study (n=130) reviewed PTSD in the general mental health population and found that there was a high level of victimisation experienced with 87% reporting some form of victimisation and 46% of the cohort were diagnosed with lifetime PTSD and 32% current PTSD (McFarlane, A et al. 2006). The incidence of drug dependence in both groups was high, but in the incarcerated women prisoners it was extreme at 97% (Raeside 1994). This demonstrates the need to research PTSD in both incarcerated and mental health patients; a theme that is brought together in the environment of Forensic Mental Health and the inspiration for this research.

Let's start with the main issue of PTSD, it was found in this cohort (n=39) that patients identified on average 8 major stressful events; 33% (n=13) of patients had current PTSD and 21% (n=8) severe PTSD. From this research alone, it would appear that one third of the forensic population will be suffering from a level of PTSD that requires treatment. If we expand this research across the nation, then it has the potential for significance on a national scale as a preventative intervention of PTSD in the general mental health population, but also for the requirement of an active treatment programme of PTSD for offenders. What is also significant in this research is that 41% (n=16) related their current suffering as

caused by 'the serious injury, harm or death' caused by them, whereas 18% (n=7) reported the death of someone close to them as their main area of stress. Some of these cases would have involved the murder or attempted murder of a close relative (son x4, mother x3, and partners x3). The top four issues; Transportation accident; Physical Assault; Serious injury, harm, or death you caused to someone else; Sudden unexpected death of someone close to you make up 79% (n=31) of all primary stressors selected. This provides an area of potential future research.

The research found a major gap in our mental health services where patients were seeking help, but the system failed them. Forty four percent (44%) (n=17) of cases actually stated during this research that they actively sought help prior to their offence. Seventy four percent (74%) (n=29) of the patients in this study reported that they had prior contact with a GP, and sixty four percent (64%) (n=25) with mental health services, but did not get the help they needed and ended up in prison or committed such a serious crime that they were admitted to the forensic unit due to reasons of insanity (mental impairment) or being unfit to plead. Fifty six percent (56%) (n=22) had been involved with a mental health team in the 12 months leading up to their offence. There may be better ways of health departments monitoring such risks across the state. In the UK for example they have the Care Programme Approach, whereby it is compulsory for services to track patients, have a current care plan to manage risk, and to ensure clear communication between agencies (Musker 1998; Swinson, Nicola et al. 2010).

Illicit substance use in this study, had a similar alarming frequency to the female prisoner cohort described above. Ninety percent (90%) (n=35) of the sample had taken illicit drugs and (n=31) 79% of the sample had tried drugs from between 26-99 times, whilst 72% (n=28) patients had taken drugs more than 100 times. Fifty nine percent (59%) of the sample recognised that they had a problem with their use of illicit drugs, suggesting 30% thought their use was not. Although 49% (n=19) of the sample thought they were addicted to illicit drugs. Over half of the sample 51% (n=20) had injected drugs. It would not be a great leap to suggest that the illicit substance use is likely to have exacerbated the patient's mental health symptoms, and may well have been a key factor in the commission of the offence. We need to consider how we can reduce these statistics and provide upstream programmes that bring these figures down to a manageable trend.

Qualitative information about pre-offence issues such as demographics and stressors / behaviour prior to arrest, these includes the specific delusional paranoid like thinking, and hallucinations, combined with difficult personal circumstances such as homelessness or chronic illness. There are a number of significant findings in the research that provide an insight into the experience of patients within the South Australian Forensic services and these are presented in both case study format and data sets for the cohort. The case studies included the experience of the patient from the time of committing their offence, through to the arrest process, court experiences, prisons and forensic environments. The

trauma caused by this justice process is supported by data such as the Recent Life Events questionnaire. Paranoid delusions are a major warning sign and key risk factor for many of the patients who committed homicide and this could be used as a 'red flag' for community teams when considering risk.

An holistic view of the patient from Childhood through to their current disposition and includes the patients view of both parents. The relationship with the patient's mother for example had three frequently chosen areas of; Overprotective 74% (n=29); over-controlling 54% (n=21) and Critical 46% (n=18). The relationship with the father demonstrates a different picture to that of the mother, for example the mother was considered overprotective at a rate of 74% (n=29), whereas the father was considered overprotective at a much lower rate of 38% (n=15). The perspective about the father paints a picture of abandonment rather than overprotection with the most frequent positive answers being 'left on my own a lot' 49% (n=19), 'was uninterested in me' 49% (n=19), and 'ignored me' 46% (n=18). There is a lot of interesting information gained about this group and there is too much data to repeat it all here. An example was how a large amount of the group had left school at an early age and did not complete year 12 (77%). Similarly how 77% of the group were on a government pension at the time of their offence, indicating that both unemployment and poor education are common factors in the forensic mental health cohort.

There is a large amount of data on mental illness, PTSD, and related disorders for comparison against national trends and reports, and the data and findings are similar to those found in the 'The Health of Australia's Prisoners' report (Australian Institute of Health and Welfare. 2013). Aggression is a topic often associated with PTSD and the cohort continued to have issues in managing their anger. Seventy four percent (74%) (n=29) of the sample identified a positive score for still feeling angry at people, having used a weapon in the past, and had been arrested for a violent crime. Seventy two percent (72%) (n=28) had positive scores for having attacked someone who was not a member of their family. The above information essentially captures the admission criterion for the unit in that the patient would have committed an emotional form of crime that has involved a violent crime, frequently involving a weapon. Knives (or other sharpened instruments such as screwdrivers) were the most frequent weapon used at 40%. Other areas of significance are the type of victim, the type of weapon used, and the patients views on suicidality are all topics that might interest the reader and you are urged to go to the contents of this text to review the findings in these areas. The case studies have drawn together the evidence for five cases to assist the reader in translating this to real cases, and practical issues.

9.2 Discussion:

It is common that patients who are admitted to the forensic unit are distressed. Some are so unwell when they arrive that they are in a fugue type state. Many patients expressed an inability to remember what happened to them or to fully comprehend the situation they are in. Almost all patients will have recently been through discomfiting aspects of the legal system; having been arrested; taken to a police station for interviewing; held in police cells; and transferred to a remand centre. Because of limited beds in the forensic care system, some may endure a number of months of imprisonment before they arrive at the front door of the forensic unit for the help they need. It was noted that many reported numerous traumatic events in the 12 months prior to admission. Examples include; perpetration of the offence which may have involved horrific scenes; the whole episode of the arrest; being locked in cells by themselves for long periods; and then the fearful environment of prisons which can often involve being assaulted or abused. Ninety two percent (92%) (n=36) identified contact with the police or courts as a recent stressful life event, and 62% (n=24) indicated that it still affected them.

Once patients arrive at the forensic unit they are consumed in the legal process, which involves being assessed by three forensic consultant psychiatrists, or forensic psychologists for formal reports. They will also be interviewed by detectives, lawyers and various police investigators. The evidence from these interviews is then used to formulate the court's decision for sentencing and disposal. The legal process can take up to a further 2 years and beyond, involving frequent court attendances and for some, stigmatising headline news in the media. There is awkwardness between treatment and the legal process as practitioners may be reluctant to talk about the offence with the patient due to legal implications. This 'avoidance' and 'dissociation' then becomes entrenched in practice whereby we support the patient's evident symptomatic avoidance.

Fifty nine percent (59%) of patients reported that they avoided thinking about their offence and 67% of patients reported that they avoided people or activities that would remind them of their offence. There is an unspoken collusion with the patient to avoid talking about and to dissociate from the offence. Practitioners are conflicted between treating patients as people first whilst somehow acknowledging their dangerousness; a professional skill of pretending that they have not for example brutally killed someone. There is no set time to re-engage the patient regarding their offence or to start treatment around the issues that led to their offence. We will revisit this issue in a discussion of treatment of offenders.

During the research interviews it became evident that trauma was not limited to 'the offence and arrest', because some patients had been involved in extremely

stressful life experiences. An alarming amount of the patients had experienced a transportation accident 74% (n=29), and other major stressors such as sudden or unexpected death of someone close 69% (n=27), severe psychosis, violence or physical assault (74%), or 'other' unlisted events such as experiences from their childhood that were still affecting them as adults 51% (n=20). In some of the case studies it becomes apparent that patients had been struggling with their past trauma and mental illness for many years. Symptoms can include living with terrifying hallucinations and delusions, some patients believing they or their children were going to be killed or tortured.

Q	Area of Stress	N	%
3	Transportation accident	29	74%
6	Physical Assault	29	74%
16	Serious injury, harm, or death you caused to someone else	28	72%
15	Sudden unexpected death of someone close to you	27	69%
7	Assault with a weapon	21	54%
17	Any other stressful event	20	51%
14	Sudden violent death i.e. homicide suicide	14	36%

Figure 66 Examples of Traumatic Events Experienced

One patient for example believed the terrorist group Al Qaida were going to kill him, stating that he saw operatives chasing him across Adelaide, which resulted in him taking someone hostage in their car. A common symptom in mental health is religious or paranoid delusions and this led to some patients killing their relatives. 62% (n=24) in this study expressed some level of paranoid delusion ideation, whilst 23% (n=9) specifically mentioned some biblical references. The dangers of patients hearing commands from God or the Devil should not be underestimated, as they are prepared to act on such commands reneging their responsibility to a higher power (Reeves & Liberto 2006). Patients with a combination of PTSD and psychotic symptoms are more likely to experience more positive psychotic symptoms, heightened paranoia, and more self-reported violent thoughts, feelings, and behaviours due to hyperarousal (Sarkar et al. 2005). Thirty one percent (31%) (n=12) of the sample in this study for example reported being 'super alert of watchful', whilst 64% (n=25) had difficulty concentrating.

The author set out in this study to better understand the human experience of those that enter and are cared for by the forensic mental health system and more specifically to identify the frequency of PTSD and the types of trauma in this population. Having worked in secure environments for 28 years it was time to have a closer look at the traumatic events that occur for those that come into our service. It was important to look at the 'index offence', but also to review issues prior to this major event. The author discussed the offence with the patient, and the processes and experiences that occurred following their 'offence and arrest'. The research tools examined a broad spectrum of the lifespan of patients,

providing an holistic picture including; childhood trauma; relationships within families and the community; and many other variables such as their history of aggression. In order to achieve this objective it was necessary to get to know the patients and to build a rapport with them, and this 'getting to know you' period took a minimum of 1 to 2 months. This time span fitted well with the ethical approval parameters, allowing the patient a period of recovery following their offence. Building a close relationship with the patient was an element of the study that demonstrates the unique position of the author to carry out such research. It enabled patients to share some profoundly unique experiences with someone who has an 'insider knowledge' of the forensic system, providing an opportunity for 'reflexive exploration' and 'experiential alertness' (Kirby 2007; Stevenson 1996).

For the patient to be able to participate in the study, they had to remain in the unit for at least a further 2 to 3 months, as the interviews took place over an 8 week period, and allowed a follow up period of approximately 1 month for support. These sensitive safe practice guidelines limited who could participate in the study, as the courts would make unpredictable decisions about the length of stay of patients in the unit. It was necessary for careful consideration about participation and this was done in conjunction with the clinical team, in particular the consultant psychiatrists. They had a fair gauge of how long someone would remain in the unit, and assisted with patient selection. Only the longer term patients were approached, and this could be determined by their offence such as homicide or attempted homicide, or if they had already been sentenced and were likely to remain with the service for some time. Attendance at court was another unpredictable factor, patients could attend court one day and suddenly be discharged the next. The sample was a convenient sample as many of the patients who participated had already been sentenced and admitted for a number of years or newly admitted but with an obvious outcome to their court matters. The patients selected were likely to be in the unit for many months or even years. The annual turnover of the 40 bedded unit was approximately 150 patients per year and because of this there were limited patients that were suitable. More information about the unit and key performance indicators such as admissions is included in appendix D. 48 patients were selected in all, and 9 of those who started the questionnaires dropped out, or refused to participate.

The ethical approval process took a long time, 18 months, as approval was sought by both the prison service and the health service attached to the university; the Royal Adelaide Hospital. Further information was sought from both committees prior to the research being granted approval and the department for correctional services afforded a 12 person panel that had to be satisfied through a formal interview process. The department for corrections also wanted clarification about the processes and how the information would be used. On hindsight, this rigorous approval process is necessary when working with vulnerable people who are incarcerated as they may have difficulty in walking away from such participation

(Jacobson 2005). The power dynamics between researcher and patient is one of 'power over' and the ethics committee demonstrated a full awareness of this issue (Cutcliffe & Happell 2009; Perlin 1991). The ethics committee asked for further information about the patient group and asked that consent forms were designed to reassure the committee that the patients would be supported by their clinical team and primary nurse prior to, during, and after participation. A follow up interview and questionnaire was designed to provide analysis of the patient participation experience. A senior forensic psychologist was available for any urgent support required, although this proved unnecessary.

As can be seen from the section on "Instruments Used", there were around 23 tools resulting in an extraordinary amount of data. This was compiled by the author into an excel spreadsheet, and sorted into various tables and themes against the patients number. It provided some statistical analysis in terms of frequency, statistical means, standard deviations, and comparisons against cut off scores for each tool used. Following a consultation with a statistician the data was reviewed against crime type, gender, and other variables and although some minor differences were seen, they were thought to be not statistically significant and the sample was small. A table has been provided with this data analysis in section 5.7 comparison of data across offence types. The data still provided some interesting results showing an overview of the South Australian forensic cohort which led to a large proportion of the themes in this thesis. Other published studies in the area of PTSD and forensic mental health have used small populations due to the way forensic units are usually confined to states within a country such as Canada, Germany, or New Zealand (Gariebballa et al. 2006; Kristiansson, Sumelius & Sondergaard 2004; Spitzer et al. 2001). A national or international cohort would be one way of overcoming this limitation. Some studies in general mental health populations have been cited for comparison, as they have reviewed PTSD in inpatient mental health units of similar size.

A large portion of the patients had previous trauma prior to their offence, one patient for example had seen his partner hit by a car and dragged down the road for some distance. He had frequent admissions to the unit across the course of the study, but his offences were minor and clearly related to his state of mind and community instability including living on the streets of Adelaide as a vagrant. Little had been done to address his traumatic experiences and treatment tended to focus on his psychosis. As with many patients, treatment tends to focus on the primary diagnosis of the major axis 1 psychotic disorder (as described in the DSMIV-TR) rather than looking at a whole of life journey. Although the research was not meant to offer psychological support, many of the patients were keen to talk about their past experiences such as difficulties they had in their childhood, or adulthood as many of them often related in some way to their offence. One patient felt that he had been abused as a child, and went on to have delusions about his parents. He believed that his mother and partner were trying to turn him

gay, so he stabbed her multiple times, attempting to kill her. Relationships between family members were discussed with the patient as part of the research, looking at attitudes within the family, history of abuse and circumstances of their childhood. The multitude and varied questionnaires led to insights into the patient's life that aren't normally gained in the forensic assessment process, or through the usual nurse patient relationship.

The approximate interview schedule lasted for around 10 interviews over a total of 5 hours. This meant the author was spending regular time with patients (usually in half hour blocks) and they were providing intimate details about their childhood, their offence, current life situation and family dynamics. All aspects of their illness were reviewed using a comprehensive computerised programme known as the CIDI. This is a tool commonly used in national surveys of a statistical nature. The author spent a large amount of time interviewing patients and having gained knowledge of so many aspects of their lives, this led to a deeper understanding of the individuals involved. It also assisted the practitioner to form a closer relationship with them. The responsiveness and shared respect that was given from patients following the research was noticeable from the author's perspective, and this has lasted throughout the patient's stay. It's as if having shared knowledge about their life and experience and by going out of your way to find out more about them; the patient's seemed to view the author in a different light. This is clearly a subjective perspective, but notable all the same. Although some patients found the process challenging 91% (n=30 of 33 respondents) found the interview to be supportive (providing a score of 5 or greater on a scale of 1-10). Similarly 82% (n=27 of 33 respondents) identified that they felt better having discussed the issues (providing a score of 5 or greater on a scale of 1-10).

One aspect of the research that wasn't anticipated was how many patients were already receiving treatment prior to their offence and somehow had fallen through the gaps in the mental health system. Seventy four percent (74%) (n=29) of them had gone to their GP or had an admission to hospital to seek help; this commonly involved expressing paranoid delusions, or some other form of psychotic phenomenon. It has become evident, and it is supported in the literature, that there are limited acute mental health beds for those who need urgent help in the community. There were 30,000 mental health beds in Australia in the 1960's which has fallen to 8000 in 2006; seeing large amounts of patients 'transmigrating' to prison beds (Huxter 2012). Additionally, accessing mental health support is not a simple process and most patients now have to be triaged through emergency departments or their GP. Even if access to services is gained, this is limited to the most acute patients and usually for only a short length of stay of around 7 days. Community and after care are sparse and stretched. The inevitability of crimes such as homicide occurring is disconcerting and results in mental health patients becoming criminalised. There are no easy solutions when resources are short, but more needs to be done in terms of access, types of care, and community

prophylactic support. The old asylums and day care centres that were ubiquitous have almost all but disappeared. Nothing has replaced the asylums, leaving the people who have a mental illness to find their own way in the community. Community care is the cheapest method for caring for the people who have a mental illness as it requires no accommodation or recurrent funding for large groups of staff. Whilst the people who have a mental illness are still entering the criminal justice system, more needs to be done to provide community support and reintegration for the long term patients.

The starkest finding was how many patients in the forensic mental health system had taken drugs or had an illicit substance use problem. 9 out of 10 had some form of drug use in their lifetime. Seventy two percent (72%) (n=28) of the patients had used illicit substances more than 100 times. These results are similar to that of a Swedish study that found 72% (n=127 of a total 181) of the sample offender population admitted to illicit substance use and 72% had been arrested for violent crimes (Durbeej et al. 2010). It is well documented that cannabis, which was the drug of choice worsens mental health symptoms (Arseneault et al. 2004; Os et al. 2002). The data suggests that drug counselling for people who have a mental illness needs some urgent intervention if we are to prevent further criminalisation. If illicit substance use combined with mental illness is leading to offence type behaviours, then there is a need to provide more resources in this form of prevention. Eighty eight percent (88%) (n=15 of 17) of the patients who had evidence of PTSD (n=17) had abused illicit substances, and this is often a form of self-medication for those suffering from stress or illness, in attempt to alleviate symptoms. Although there was a high incidence of alcohol related issues 46% (n=18), they were not as extreme as the illicit substance use figures. These results again were similar to the Swedish study above with 51% (n=92) of the sample had a dependency diagnosis with alcohol.

9.3 Implications for Practice

The initial motivation for the research was to find out how people who had harmed others felt about their offence and how it affected them. The Clinician Administered PTSD Scale (CAPS) asked patients to identify their lifetime traumas, but if the patient did not identify the offence as one of those traumas, the author asked them for permission to discuss it with them anyway. All too frequently we shy away from talking to patients about their offence due to the legal processes that the patient goes through or are currently participating in. The legal position is murky and it is possible that we fear the patient may incriminate themselves, or say something to the practitioner that leads to new evidence, causing the practitioner to become a witness. It brings about a whole set of sensitivities and ways of practicing that are rarely described or talked about. Whilst initially, it seems reasonable that until the criminal justice system has processed the crime and provided judgement that we are sensitive to the offence detail and behaviour. However, because this process is so long, usually around 2 years, we forget to refocus or support the patient on their offending behaviour and crime. The author came across one patient, who refused to be a participant, and who refused to discuss his offence as it sent him into anxiety attacks. The patient was released without having to discuss his offence or to complete any offence related work. The implication for practice is not only should the offence be discussed with the patient, but also what occurred leading up to the offence, the causative factors, triggers, and risks that arose prior to the offence. Whilst the patient is in the forensic environment it is a safe place to explore and challenge these concepts with them and this is discussed further as a way of ameliorating future risk.

The key question in this thesis was 'Do patients suffer from PTSD following their offence, particularly those who have committed serious offences such as homicide?' Some patients clearly had trauma symptoms and even though not everyone had scores over 45 on the Clinician Administered PTSD Scale (CAPS) or the PTSD checklist Civilian Version (PCL-C), there was clear evidence that they had experienced trauma in the events prior to the crime, during the crime and the period that followed. PTSD is an anxiety based disorder that can lead to profound and long term symptoms, not least of which is regularly re-experiencing or reliving the horror of the offence. This is borne out in the data provided in the section on 'Corroborating Tools and Data Analysis'. The implication for practice is that at least one third of patients require some level of treatment in relation to their trauma symptoms and experiences.

Others patients had a partial or whole blank for the time that they committed their offence, only knowing what they had done through what they had read in the police or court reports. This research has helped the author gain a better understanding and a glimpse into the whole experience the patient endures and is similarly conveyed to the reader in the form of case studies. This includes the

period whereby they have been trying to get help with their symptoms; what happens when they carry out their offence; what they are thinking about during the act of harming others; and the way it changes them as people. The implications for practice are that the significance of memory loss for some patients is great. Unless the questions are asked, such as those in the Clinician Administered PTSD Scale (CAPS) about memory, nightmares and avoidance, then a dynamic aspect of treatment will be missing.

The case studies combined with the data tables provide a comprehensive picture of the individual starting with the patient's early life experiences from childhood; some of the difficulties they have gone through in their lives and the mental health system; the relationships with their family; the detail of the offence and a whole plethora of information about the individual that would otherwise not have been apparent through normal assessment processes. The implications for practice is that there are a lot more avenues for us to review the patient's history, not just the current behaviours they display in the unit. We can use tools similar to this study to dig deeper and find quality information that may transform the way we provide our care.

Looking at the three major parts of PTSD clusters, the re-experiencing aspects of the offence are possibly the most profound for the perpetrator. This can be through the phenomena of flashbacks or through dreams and nightmares. Many of the offences involved stabbing, as this is the most common form of homicide or major assault in Australia. Many scenarios that were perpetrated and described were relayed to the author in detail, such as multiple stabbings of a victim that were both frenzied and bloody. It was evident that the horrific scenes involved, continued to affect many of the individuals concerned, with at least 72% (n=28) identifying an assault or harm they caused to someone else as a major stressful event. Approximately one third of patients (31% n=12) had scores equivalent to a diagnosis of PTSD with 21% (n=8) had scores > sixty five (65) equating to severe PTSD. If we consider the rising forensic population, particularly in prisons, there is a need to offer a considerable programme of treatment and support in the area of post-traumatic stress disorder.

Prisoners make up a large part of our community population and many are suffering from untreated disorders. As of 30th June 2008 there were 27,615 prisoners in Australian prisons with average sentences of around 3 years; 7% women; and Australian Indigenous peoples are over represented at 24% (ABS 2008). Over half of the population of prisoners had been in prison before (55%) and the largest proportion of offenders (18%) had committed acts that intended to cause injury (ibid.) There is strong evidence to suggest that those in prison and forensic hospitals have a high incidence of PTSD and multiple traumas (Butler et al. 2006; Garieballa et al. 2006; Sarkar et al. 2005; Spitzer et al. 2001).

In a comparison between forensic psychiatric patients and general psychiatric patients, there was a higher incidence of current and lifetime PTSD in the forensic group, they had a greater number of traumas and had more often suffered both physical and sexual abuse (Sarkar et al. 2005). In a study in New South Wales prisons, PTSD was found to be the most common disorder 26% of all receptions and 21% of sentenced prisoners (Butler et al. 2005). Women in particular suffer an even higher incidence of PTSD, many having been victims of sexual abuse, or rape. This is reflected in the disproportionate amount of acts of self-harm, expression of anger, and suicide by women whilst incarcerated in prisons and forensic units (Borrill et al. 2005; Huang et al. 2006; Raeside 1994).

There have been many studies to provide statistics on the amount of prisoners / forensic patients who have PTSD in incarcerated populations, so the next step would be to provide effective treatment programmes and to measure if this has any effect on recidivism rates. Prisoners with mental health issues are treated in forensic hospital and this can be for a short period of weeks, to many months or even years, but there is no system to measure whether such episodes of treatment are effective across the prison population.

Whilst many prisoners are admitted for acute admissions for the major mental disorders such as mood disorders and schizophrenia as per the DSMIV-TR criterion (APA 2000) it is rare that the primary diagnosis would be PTSD. It is not uncommon for PTSD to be combined with other mental disorders, but there is difficulty in differentiating whether symptoms such as intrusive thoughts are related to PTSD or an illness such as depression or anxiety disorders (Bryant et al. 2011). In order to treat axis I disorders such as schizophrenia and depression effectively, it would be worthy to screen for PTSD so that concurrent treatment such as psychological interventions can be provided before the usual recourse of high doses of medication and poly-pharmacy are considered.

PTSD is often under reported where there is co-existing mental illness, traumas cannot be erased by medication, and if untreated are likely to result in confusing symptoms causing other treatments to be less successful (Lommen & Restifo 2009). Furthermore, previous life trauma, particularly multiple traumas are known to predispose people to crime, comorbidity disorders such as drug or alcohol abuse, and psychosis (Scheller-Gilkey et al. 2004). We get back to the chicken or the egg discussion of whether the trauma caused the major mental illness or other comorbid symptoms, so only treating the major mental illness or comorbid issue is essentially leaving the original cause untreated (Neria & Bromet 2000).

One method to ensure all prisoners have some form of intake assessment around PTSD is to use the PTSD checklist Civilian Version (PCL-C). The PCL-C is a simple and effective tool for screening for PTSD, whilst the Clinician Administered PTSD Scale (CAPS) is more detailed and requires much more time. More detailed tools such as the CAPS will engage the patient in some narrative

discourse that enables the practitioner to gauge the severity and frequency of the symptoms, but this should be reserved as part of a treatment process or more detailed investigations. The PCL-C takes around 5-10 minutes, whilst the CAPS will take around 1 to 1.5 hours, but this would be used as the follow up assessment where confirmation and the trauma causing the PTSD is required.

In some cases it is the trauma issues in life that lead to the patient's deterioration, and this can be a pre-disposing factor in that they go on to commit a crime. In identifying the unique risks that lead to the offence we can better prevent relapse. By merely focusing on DSMIV-TR disorders and symptoms of psychosis we may miss the 'trauma triggers' that initiated the first offence. Examples of triggers might be reminders of sexual abuse, or particular types of hallucinations, and delusions that make the person dangerous. One patient for example had expressed thoughts about killing other females before actually doing it. More research could be done in relation to types of trauma in relation to offence type, mode of assault, and risk factors. It was evident from this piece of research that many patients had previous contact with mental health services prior to committing their offence 64% (n=25) had seen a psychiatrist, and 56% (n =22) had seen a mental health team in the 12 months prior to their offence. In fact many expressed they sought help to prevent them responding to their hallucinations with 74% (n =29) having seen a GP in the previous 12 months.

This research identifies that approximately 33% or one third of the forensic population is likely to have experienced some form of trauma or more likely multiple traumas to the extent that the individual will be suffering from current Post Traumatic Stress Disorder symptoms. The question for future research is whether all forensic patients and prisoners should be screened for PTSD. This would ensure that all admissions are provided with some form of treatment for their identified trauma prior to being released into the community. It is the author's position that forensic patients should not be released into the community without psychological interventions around their offence, which is not only traumatic for them, but for family members around them. This includes discussing the act perpetrated, considering victims, the likelihood of recurrence and the related consequences. Some patients for example, deny they have committed their offence and some even deny they even have a mental illness.

The author has experienced patients who from the day of admission refuse to talk about their offence, or the circumstances around it. In relation to managing risk, it is necessary to build relapse prevention plans that allow the perpetrator to identify risks or triggers enabling them to ask for help as crisis arise. In essence, proactive treatment of the traumatic disorder will reduce suffering of the perpetrator and allow them to work through offence issues whilst still being in an inpatient setting. This is suggested as a positive mental health promotion and risk reduction strategy, with the ambition of reducing future crime or recidivism. The

areas of clinical work or treatment that can be done with patients as part of their offence work should include the following:

Attitude toward the offence

- Attitude toward victim / victim profile & relationship
- Trauma Experienced
- Guilt
- Remorse
- Regret
- Motive
- Desire for future avoidance of harm to others

Offence work (interventions and growth areas should be considered):

- Assistance in dealing with the trauma and triggers
- Work on what circumstances led to the offence
- Acceptance of responsibility for actions / crime
- Acknowledgement of actions / crime
- Acknowledgement of victim and victim's family or witnesses
- Victim Empathy Groups
- Relapse Prevention and Identification of Triggers
- Drug and Alcohol work
- Develop skills in seeking assistance from support systems
- Mental Health Promotion and Treatment

Here is a rationale for each of the above recommended areas of treatment focus:

9.4 Attitude toward the offence

Prior to release a patient should have to demonstrate that they have completed work on their attitude toward their offence. Firstly we have to consider the circumstances of the offence and the relationship with their victim. In this study a couple of patients stated that their victim deserved the actions perpetrated against them, such an attitude would suggest that the person is still a high risk of recommitting a similar offence. If the patient did have a specific trauma that led to their offence, or at least promoted their offending, then treatment of these traumas should be provided. One example is a patient who clearly had trauma from his childhood in relation to being emotionally tortured by children at school and further at home due to facial scarring. His constant state of elevated anxiety led him to drug seeking in order to alleviate and self-treat his distress. The use of drugs then led to his offences of armed robbery in order to get money to support his drug habit. Unless this patient's drug habit and trauma are treated, then he is likely to continue to re-offend. He is currently on his third admission. There are some tools such as the 'Lifetime Criminality Screening Form' which has been able to predict high rates of recidivism in prison inmates, focusing on attitudes on irresponsibility, self-indulgence, social-intrusiveness, and social rule breaking (Walters & Chlumsky 1993). In one study using a cut-off score of 12 the tool had a hit rate of 77% in predicting re-incarceration of offenders (ibid).

Guilt and remorse are another factor that should be considered in the risk profile. The author has known patients to gloat over their offences, or when they see others being harmed. This is not always reported directly by the patient, but by other patients who are often shocked at their attitude and they then report it to clinical staff. Specific attitudinal development work needs to be done around feelings of guilt and remorse. Where this is absent, consideration needs to be given to why this has occurred and focus the rehabilitation work on a moral based type of treatment (Janoff-Bulman, R., Sheikh & Hepp 2009; Noguera 2000). Such work has been successful with personality disordered offenders in stressing the fact that society has moral expectations for us to live together within that society. A treatment known as 'Moral Reconciliation Therapy' has been used around the world within correctional environments and attempts to move the individual from an egocentric understanding of the moral world, toward a better cognitive understanding of their moral development and judgement (Ferguson & Wormith 2012). Whilst the patient may not have any remorse or guilt about what they have done, they should certainly have regret. Whether this be out of self interest in the current circumstance their offence has led to, or for the damage they have caused to others. Again, a lack of regret would further add to risk prediction.

Finally there is the attitude toward future avoidance of crime or harming others. By exploring the motive behind the offence, whether this is due to a psychotic breakdown, or some other social motive, it will allow the clinical team to work on

issues such as anger management, or the patient's understanding of psychosis and its symptoms. One patient told the author during the clinical interviews that he looks forward to being in a fight again, as he gets a thrill out of violence; he recalled that he would walk into a pub and just pick on the first person he didn't like. Another said that he had fantasies about torturing people, by throwing fuel on them and setting them alight, or tying them up and burning them with cigarettes or slowly cutting them. The same patient also talked about burying someone alive and urinating down their only breathing tube. I was only told these things as part of the confidential aspects of the research and I report them here in a de-identified method, but it highlights the need to carefully ask offenders about their attitude to future crime as part of their treatment pathway. We need to create an environment whereby patients can reveal these desires and attitudes in a safe way, so that we can provide them with treatment and assess their level of dangerousness.

There is evidence that suggests there is a high incidence of personality disorder in patients who are in prison and in forensic hospitals; at rates of around 65% with a personality disorder and 47% with antisocial personality disorder (Butler et al. 2006; Fazel & Danesh 2002). Patients are often excluded from treatment in the community as they are difficult to treat. For those patients with personality disorder it is helpful to provide them with opportunities to take responsibility for their actions without focusing on 'blame' (Pickard 2011)

Treatment Modalities:

There are many methods of providing effective PTSD treatment such as trauma focused Cognitive Behavioural Therapy (CBT), stress inoculation through Eye Movement Desensitization and Reprocessing (EMDR), Hypnotherapy, supportive counselling and pharmacotherapy (Wampold et al. 2010). There are various guidelines that rate treatments such as the those from the International Society for Traumatic Stress Studies (ISTSS) or the American Psychiatric Association (APA), all with their own viewpoints on which treatment modalities are most effective (Forbes et al. 2010). Forensic environments provide a safe context to explore trauma as patients are usually under 24 hour supervision. There is opportunity to review the life circumstances that led to the offence and build in protective measures upon discharge to prevent such circumstances, or at least set off some alarms to the clinical supervisors.

As mentioned earlier, there is a need to accept responsibility for the actions perpetrated and to discuss those actions working toward acceptance. This would undoubtedly be a traumatic process for some, and would need to be implemented by experienced practitioners, preferably supervised by a psychologist. There are cases where patients do not believe, or cannot acknowledge they have committed a crime. Allowing patients to take this position means there has been no attempt to minimise future risk. Similarly part of the persons cognitive development should

include an acknowledgement their crime has had on victims, and their own family. Victim Empathy Groups are currently run within our service which incorporates a closed group that discusses the effects on their victims, and their victim's relatives.

The high frequency of forensic patients with illicit substance use issues 90% (n=35) means that almost every patient requires support in reducing their drug dependence issues, particularly the use of cannabis. The last few treatment issues combine to form a programme of relapse prevention, helping the patient become aware of the triggers that led to the offence, and helping them to seek support if they find they are struggling with their psychosis, social environment or illicit substance use. Most forensic units around Australia have a Forensic Community Team that will monitor the patient's progress as they re-integrate into the community.

9.5 Limitation to Research in Forensic Environments

The limitations of research in forensic populations in Australia are that we only have small populations in each State, the largest being in New South Wales with 135 patients. South Australia has only 40 beds for Forensic Patients and prisoners. Some State prisons have additional mental health beds as an assessment type unit within the prison. There have been some efforts to collaborate on benchmarking across the States, and this could be one approach for future research in PTSD in forensic environments.

Maximum Security Beds around Australia

- NSW = 135
- Victoria = 120
- Queensland = 120
- South Australia = 40 (10 new beds being built)
- Tasmania = 35 (approx. 25 commissioned)
- Western Australia = 30
- Canberra = 0 (using prison or local hospital)
- Northern Territory = 0 (using prison or local hospital)

Total = 470 Forensic Patients nationally.

Each state only has a small population, so it would be more effective to analyse a national cohort. Forensic units are always full, and there is usually a waiting list of patients waiting to enter the system from the prison or the courts.

So the main limitation of this research is the small cohort, making it difficult to compare across populations or to make definitive findings. All of the research, data collection and analysis was completed by the author without funding. It may have been possible to increase the cohort examined with more researchers or time.

9.6 Future Research Recommendations

The experience of completing this research provides some lessons for future research. The length of time to complete the tools caused a limitation in the quantity in the cohort. It is recommended that a series of tools are used that start with a screening process, followed by an interview process that takes no longer than 1.5 hours to 2 hours in total. These could be completed over 1 to 4 interviews. The tools critical to the research are the PCL-Civilian as a screening tool, which should be considered as a pre-cursor to the Clinician Administered PTSD Scale (CAPS). Anyone with a score below 35 should be excluded from the more detailed CAPS. The relationship of PTSD with aggression, comorbidity, and childhood trauma are highly relevant issues and the many aspects of the Impact of Childhood Stress on Adult Health questionnaire booklet captures most of these issues. Only selected questionnaires from this booklet should be chosen depending on the area of research. The Composite International Diagnostic Interview (CIDI) was somewhat of a duplication process, but provided a highly structured interview process and was comprehensive in reviewing diagnosis including PTSD. It would be recommended that the CIDI is used on its own as an alternative to the listed paper based questionnaires used, but not both. The CIDI should also be limited to a small series of components, as it can take up to 2 hours to complete if there are many positive diagnosis; the aspects of drugs and anxiety disorders are particularly lengthy.

If we assume from this research that approximately one third of forensic populations will have a positive PTSD diagnosis then we can use this information to gauge the scope of the research on the population to be studied. This will assist with design of study and allow for some prediction in outcome, and allow the researcher to plan across patient flow, and whether it should be completed as a multi-centre study. A national study across Australia forensic units for example, would likely result in a population of around of around 480 patients, with an approximate 160 positive cases of PTSD. This would be a snapshot of the whole Australian Forensic population, but there is a gradual throughput of approximately double the same population over a year. So if the study were carried out across the transient population this would mean around 320 (out of 960) patients with PTSD across the year of new admissions and current patients.

Forensic patients indicated a higher number of stressful life events than the general population, having on average 8 events (range 2-16). Transportation accidents 74 % (n=29), physical assault 74% (n=29) and serious injury or death caused to someone else 72% (n=28) were of high frequency and is worthy of further research. Although the above stressors were of high frequency within the population studied; when asked to prioritise these major stressors 4 items were selected by 79% of patients, indicating a focus for future research.

PRIMARY STRESSOR EVENTS (frequency)		
Serious injury, harm, or death you caused to someone else	16	41%
Sudden unexpected death of someone close to you	7	18%
Sexual Assault	4	10%
Sudden violent death i.e. homicide suicide	4	10%

Consideration should be given to further investigation of prior contact with mental health services before the offence behaviour, with 44% (n=17) of patients failing to get the help they sought after contacting mental health services. More detail about the type of contact and the time since last contact could be explored. The amount of previous admissions would also be an interesting factor. Essentially exploring failure of systems with the aim of reviewing improvements in follow up contacts, surveillance, and risk measurements utilised. With such a high population of patient's within forensic systems (including prisons) suffering PTSD symptoms future research should consider ways of alleviating such distress through treatment.

Comorbid issues were extremely high in this population studied with up to 90% of patients having used illicit drugs. A comparison could be completed across states around socio-demographic ranges, such as social class, age, gender, and locality. A related issue is whether the comorbid behaviour is related to pre-existing PTSD prior to the offence and to explore if such behaviour is a form of self-treatment or coping mechanism in relation to such trauma. There could also be links to untreated PTSD trauma leading to criminal offences. It has been posited that war veterans for example have ended up in the criminal system because they have been unable to adjust back to society because of their traumatic experiences (Shaw et al. 1987). Similarly there are a high number of people in prison with PTSD, severe mental illness and a history of a traumatic experiences (Kupers 1996). Future research should consider the types of lifetime traumas experienced in these large populations and focus treatment accordingly.

Assessment of PTSD for crime type is worth further exploration and the division of homicide, attempted homicide, and other offences was a useful method of research. It was notable that those who committed attempted homicide had a higher incidence of PTSD than those that had committed homicide. One possible explanation for this is that in attempted homicide the victim is still alive and acts as a reminder to the perpetrator of the offence, particularly if they are related to the victim. The population in one Australian State is too small to make any assumptions, and if we use offence as the focus of the research, both prisons and forensic units could provide a much larger cohort; across states and countries.

The more focused questionnaires such as that on suicidal behaviour, dissociation, and the aggression questionnaire were useful in that they assisted with the profile of patients. Over half of the patients in the study 56% (n=22) had previously

attempted suicide at some time in their life. Fifty one percent (51%) (n=20) expressed some level of ongoing depression with female patients having a much higher average score on the CES-D (males Average 18; females 28) for depression. Further research is required however in discerning symptoms of PTSD, depression and schizophrenia because the symptoms cut across these disorders. It was notable that 67% (n=26) of patients fell within the mildly ill range on the Brief Psychiatric Rating Scale. A patient suffering from severe PTSD could be mistakenly diagnosed with schizophrenia or depression as the symptoms are difficult to discern. Similarly in relation to treatment of these disorders; unless the symptoms of PTSD are treated then it would be difficult to see if antipsychotic medication is working effectively.

There were lessons learned in the methodology used in that the patients provided positive feedback about the process and no apparent increase in trauma was experienced. The multidisciplinary team were supportive of the process and were involved in some of the data collection. The use of case study methodology helps to personalise and highlight the plight of individuals who find themselves in the forensic system. It allowed the author to bring the phenomenological experience of the individual to the reader.

9.6 Conclusion: PTSD in Forensic Populations

Following a total of 347 interviews taking a total 283 hours, the author gained a greater insight into the experiences of patients than would have been achieved through the normal course of everyday clinical work. Patients were provided with the opportunity to focus on the past traumas, and were given the opportunity to discuss their current symptoms. Many patients stated that they had not been given such opportunity. Another part of the research used the computerised Composite International Diagnostic Interview (CIDI), a clinical assessment tool that covers most DSMIV-TR diagnosis, and here the patient's expressed surprise at questions about their symptoms. They conveyed that their doctor had not asked about many of these issues in such depth, suggesting they had not talked about many aspects of their illness until the author had interviewed them. The interview questionnaires were of a wide range of questions and reported on issues like Obsessional Compulsive Disorders 18% (n=7) or topics like specific types of hallucinations that they had experienced. The CIDI indicated that PTSD was the highest rated DSMIV-TR diagnosis at 31% (n=12), except for Nicotine Dependence 49% (n=19), Alcohol Dependence 38% (15), and Cannabis Dependence 38% (15). The psychotic disorders were split into subgroups such as schizophrenia and depression.

It is recognised that people in prison have a higher rate of PTSD and mental illness than the general population with rates between 4% and 22% (Goff et al. 2007). As predicted the hypothesis that the presence of PTSD in a forensic population is greater than that of the general population and the amount of

traumas patients had experienced was also higher with individuals having experienced an average of 8 traumatic events. Forty three percent (43%) (N=17) had some form of PTSD related distress with scores of 39 or higher; with 10% (n=4) having subthreshold symptoms, indicating they had many symptoms across the range of the three PTSD symptom clusters. Thirty three percent (33%) (n=13) of all patients had a score on the CAPS => forty five (45) that indicated they were suffering from current symptoms of Post-Traumatic Stress Disorder. The majority of the patients 41% (n=16 including subthreshold cases) of those who had positive PTSD scores would be considered to have lifetime PTSD, as their symptoms have persisted for at least 6 months and for some, many years. Some patients had committed their offence many months or even years before the interviews were conducted, and although they had expressed they had experienced symptoms, data was only collected on symptoms over the previous month that is for current PTSD.

Not all PTSD cases related to the patients crime, but included a range of incidents such as the death of close relatives, extreme childhood abuse or violence perpetrated against them. A high number of patients identified that they had been in a transportation accident 74% (n=29) and the same number 74% (n=29) had been involved in a physical assault. Less surprising is the high number of patients that identified 'Serious injury, harm, or death you caused to someone else' 72% (n=28), with 41% (n=16) identifying this as their primary traumatic event. This latter being the most frequently picked primary traumatic event by a large margin followed by 'Sudden unexpected death of someone close to you' at only 18% (n=7). Over half of the patients had experienced a trauma involving a weapon 54% (n=21).

There was no evidence to support the notion that the more serious the crime, the higher the incidence or score for PTSD symptoms. Nor was there any evidence that the type of crime and gender had any relationship. Many patients were able to rationalise the fact that they had a mental illness during the actions of their offence, and did not feel guilty about what they had done, with only 18% (n=7) scoring 4 or more for this question (this score includes frequency plus intensity with a score range of 2-8). There was a slightly higher incidence of PTSD in those patients who had committed attempted homicide 13% (n=5 out of 13 attempted homicides) when compared to homicide 8% (n=3 out of 13 homicides), however the numbers are so small that it is not possible to make any inference. Anecdotally however, the patients who had committed attempted murder seem to express more shock about what they had done and remorse toward their victim and one possible explanation is that their victim is still alive, and at times is a close relative or partner.

There were a disconcerting amount of cases that 44% (n=17) actually stated during the research that they actively sought help prior to their offence. Fifty six percent (56%) (n=22) had previous contact with mental health services in the 12

month period prior to their offence, and some described how they had sought help only days immediately prior to their offence. Seventy four (74%) (n=29) had seen a GP, and 64% (n=25) a psychiatrist in the previous year. As the pressures on access to hospital based services increase and care in the community becomes the norm, the likelihood of missing those that would be considered acutely psychotic and 'dangerous' are more likely to occur.

The incidence of illicit substance use by this population was extremely high at a rate of 90% (n=35) of patients. It would suggest that a major focus of treatment both within prisons and forensic environments should be on reducing illicit substance use. Studies have reported that it is important to treat issues of trauma as well as tackling the more obvious illicit substance use, as this may be a causative factor in their use. Eighty eight percent (88%) of the 17 patients identified to have PTSD symptoms reported that they had abused drugs; all but 2 of these had tried illicit drugs at the age of 16 or earlier. A high proportion 59% of this group (n=10 of 17) had also injected illicit drugs. Rehabilitation in relation to drug use should play a prominent role due to the frequency of use within this population.

It is recommended that treatment for Forensic Patients has as strong focus on their history of trauma and of the trauma caused by their current offence. Treatment should include therapeutic interventions around offence work including acknowledgement of the act, reflection on the effect on others, and preparation for prevention of future criminal behaviour. One issue that became apparent, and that may hinder such treatment was the effect that the trauma had on memory with 67% (n=26) expressing they had trouble remembering the event, yet 64% (n=25) express that they had disturbing memories of the event. The other problem expressed was that when they could remember they became very upset at the thought of the event 69% (n=27), but also had trouble concentrating 64% (n=25).

A final note on the effects of the research on the author; many people who listened to a presentation on the research data and the processes involved asked 'what do you do at night to personally deal with all this?' A similar 'dissociation' that the patients achieve in separating their crime from their illness is also experienced by the forensic mental health practitioner. It is difficult to explain but we have to detach from the patient's crimes in order to practice effectively. Many nurses and other disciplines will go through a transition phase in their early practice, whereby you have to build up your mental 'protection' and develop strengths in your personality (Ewashen & Lane 2007). It is necessary to compartmentalise the feelings experienced in one's personal life and detach from those feelings experienced in professional life. For example when a patient describes how she killed her child, with the inevitable gore and detail then it is necessary to detach emotionally from that information in order to continue to provide a warm relationship with unconditional positive regard. How this is achieved and how each of us achieves this outcome is something for future research. Over time

researching violence as part of a lengthy PhD however has been a fascinating journey but has had the unfortunate side effect of having to focus on the darker side of life. Forensic psychiatric nursing has been referred to as 'Extreme Nursing' as it exposes the practitioner to the extremes of our society (Cashin 2006). For our patients this also means extreme experiences and extreme trauma.

Notes:

Section 10

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Section 11

APPENDICES

11. Appendices

- a. Research Proposal**
- b. Ethics Approvals**
- c. Consent Forms and Information Sheets**
- d. Demographics of the South Australian Forensic Mental Health Service**
- e. List of Previous Publications by Author**
- f. Letters providing Ethical Approval**
- g. Copies of Questionnaires**

The Appendices is in 7 parts and provides the reader with information about the initial research proposal. There was a number of issues raised as part of the initial ethical approval application. The discussion and information provided to the ethics committee is placed in the appendices for those that are interested in this process. The author has published a number of chapters in various clinical texts and a list is provided of previous publications. Finally, the actual questionnaires used are included for those that wish to recreate some aspects of this research. For more detail on how to use these questionnaires – see section 4.4.

Notes:

APPENDIX A

RESEARCH PROPOSAL

a. Research Proposal

Research Proposal – The University of Adelaide

1. TITLE :

Post-Traumatic Stress & Related Disorders in Forensic Mental Health

2. INVESTIGATORS AND QUALIFICATIONS

Mike Musker

Registered Mental Nurse	RMN
Diploma in Professional Studies in Nursing	DPSN
Post Graduate Diploma in (Nursing) Education	PGDE
Bachelor of Arts (with Honours)	BA(HON)
Master of Science (Distinction)	MSc

Supervisors:

Professor Alexander McFarlane – Department of Psychiatry Adelaide University

Dr Ken O'Brien – Director of Forensic Mental Health

3. PURPOSE OF STUDY (general) and AIMS (specific)

General Purpose:

To establish the co-morbidity of post-traumatic stress and related disorders in a forensic mental health population. National Studies in both America and Australia have shown that the incidence of PTSD following a traumatic event is around 5% for men and almost twice as high for women at 10.4% and although this varies between samples, it maintains a gender ratio of about 1-2 (Kessler et al 1995; Breslau et al 1991; Creamer et al 2001). Up to 88% of those diagnosed with PTSD in the National Comorbidity Survey were shown to have at least one other psychiatric diagnosis (Creamer et al 2001.). Further, it has been reported that trauma can actually cause permanent structural physiological changes in the neurochemical and neurophysiological pathways (Hull 2002). Many patients within the forensic psychiatric system have suffered multiple traumas, which often go untreated. Patients that end up in a forensic facility have complex needs and the prevalence and types of traumas suffered by this population require further research. An examination of the Australian National Survey on Mental Health suggests that up to 8.8% of the identified PTSD population will have a substance use disorder and 6% will have alcohol use disorder (Mills et al 2006). This is likely to be greater in forensic mental health, in reality at least 3 times higher (Spitzer et al 2001). Forensic patients are mostly admitted through the correctional services and a recent Australian study showed that 80% of prisoners had suffered a psychiatric illness in the previous 12 months, compared to only 31% in a community sample (Butler et al, 2006). It is hypothesised that the cumulative effects of traumas is compounding and that this effect is experienced by the majority of patients in a forensic mental health population. The traumas within this population are likely to start in

childhood, and be frequent throughout the patient's life, resulting in alcohol and substance abuse disorders (Famularo et al 1996). The general purpose of the project is to further understand the complexities and possible causal factors that result in both serious crime against people and their relationship to mental illness and lifetime traumas.

Specific Aims:

1. To estimate the lifetime prevalence of PTSD and the types of traumas experienced
2. To explore the diagnosis of current PTSD symptoms and its relationship with mental illness
3. To examine the prevalence of substance abuse disorders in the research population
4. To measure the expression of aggression and correlation to PTSD and mental illness
5. To explore causal links between criminal offences against the person, post-traumatic stress and mental illness
6. To identify specific cases and frequency of 'Perpetrator Induced Traumatic Stress' (PITS)
7. To identify trends in symptomatology such as suicidality, anxiety and depression.

4. BACKGROUND AND PRELIMINARY STUDIES (if any)

If we can better understand the reasons why people arrive in a forensic mental health facility, it gives greater opportunity to provide the right treatment, prevent future crime and a worsening of the patient's condition. In identifying clear relationships and types of trauma that result in both crime and psychosis, society can use this more informed position to develop health promotion and preventative strategies (McNair 2004).

A number of similar studies have been completed on a forensic population (Spitzer et al 2001, 2003, Kristianssen et al 2004) juvenile delinquents (Yoshinaga et al 2004), and correctional facilities examining both mental illness and post-traumatic stress (White et al 2006). Similarly, many studies have been completed on mental illness and post-traumatic stress disorder, including a recent study at the Queen Elizabeth Hospital (McFarlane et al 2004) and one at the women's prison – Northfield (Raeside 1994). This research however will be completed within a unique forensic mental health facility within South Australia (James Nash House), and is likely to be the first study on this topic in an Australian Forensic Hospital. Some of the tools used in this study are well recognised in the international field of PTSD and others have been used in local studies. For example the Composite International Diagnostic Interview (CIDI), the Clinician Administered PTSD scale (CAPS) and the Impact of Childhood Stress on Adult Health (ICSAH). The area of mental health has many standardised tools, which will also be used in this study such as the Brief Psychiatric Rating Scale (BPRS), and the Positive and Negative Symptoms Scale (PANSS). A full list of the tools is provided in the study plan and design below, including some information about each tool (see item 6: Study Plan and Design).

5. PARTICIPANTS- SELECTION AND EXCLUSION CRITERIA (Specific)

How will participants be recruited?

All participants will be those admitted to the Forensic Mental Health Service of South Australia (James Nash House) within one calendar year beginning on January 1st 2007. Before any participant is approached, permission will be sought from their Consultant Psychiatrist and the treating Care Team. All patients will be asked if they are willing to participate in the study and will be provided with both an explanatory sheet advising them about the nature and breadth of the study. They will also be asked to sign a consent form to provide permission to access their clinical and correctional notes, in order to corroborate experiences and milestones within the system that are beyond recall (memory deficits / numbing / avoidance). These are multidisciplinary notes and extend from childhood through to their current health, including notes from Families and Communities South Australia (FSA), Department for Corrections (DCS), and clinical notes from both the health and mental health system (CNAHS). Ethics approval will be sought from the three aforementioned organizations.

At no time will incentives be offered to participate.

Some data is naturally collected within the correctional and health system, such as episodes of admission, aggression, and diagnosis. Non-participants (those who decline to participate or are excluded) will have this naturalistic data collected, but will be non-identifiable. This is data currently collected regardless of this research project such as length of admission, diagnosis and demographics.

Other previous research will be used in the comparative analysis including the current literature, the local study on 'Prevalence of Victimization, PTSD and Violent Behaviour in the Seriously Mentally Ill' (McFarlane et al 2004), and 'Impact of Childhood Stress on Adult Health' (McFarlane et al 2005). This will be performed in collaboration with the Discipline of Psychiatry, Adelaide University.

Exclusion Criterion:

- Patients who cannot speak fluent English
- Patients with an intellectual disability
- Patients who are deemed unsuitable by the Consultant Psychiatrist or clinical team.

6. STUDY PLAN AND DESIGN

The care team and consultant psychiatrists within the Forensic Mental Health Service will be provided with a presentation and overview of the research project. On 1st January 2007, all current admissions and any new admission in the following calendar year will be approached to participate in the study. Prior to any patient being involved in the study, the care team and the Consultant Psychiatrist will be asked for their approval. It is anticipated from previous studies that between 25% and 50% of patients will ask not to be involved or will be unsuitable.

A face to face meeting will be held with each patient who will then be asked to read the information sheet about the research. A verbal explanation of the project will be given to each participant. Following this the patient will be offered a consent form to sign, which will clearly state that participation, is voluntary.

Once consent has been obtained from both the care team and the patient, a number of face to face interviews will be held during the period of admission. The interviews will be spread over time so as to avoid placing any undue pressure on the patient and will be conducted on a time schedule advised by their primary nurse. The patient will be exposed to a battery of questionnaires, which will be listed below and a more detailed explanation will be given for each in the appendices. The patient will be asked for their consent to have the interview audio-recorded to facilitate inter-rater reliability and consistency of approach of the questionnaires (this will be assessed on a non-identifiable basis through the Department of Psychiatry, Adelaide University). It is envisaged that many of the patients will prefer not to be recorded using audio. All information from the interviews is confidential to the research project, and will only be discussed with the supervisors listed above. Any research published from the project will be non-identifiable.

The electronic version of the CIDI (Composite International Diagnostic Interview) version 2.1 will be used. The author is an approved user of this tool and has received training from the approved World Health Organisation centre, CRUFAD (Clinical Research Unit for Anxiety and Depression), University of New South Wales.

Trauma Specific Tools:

These 3 tools have been used in numerous PTSD studies worldwide and are seen as standard in this field.

- PCL (Civilian PTSD checklist)
- CAPS (Clinician Administered PTSD scale)
- CIDI (Composite International Diagnostic Interview)

Mental Health Specific Tools

This list of mental health specific tools are contemporary tools that are used in standard practice as part of the clinical assessment process. They are currently being used by practitioners within the forensic mental health service.

- PANSS (Positive and Negative Symptom Scale)
- BPRS (Brief Psychiatric Rating Scale)
- DASS (Depression and Anxiety Symptom Scale)
- DASA Average DASA (Dynamic Appraisal of Situational Aggression)
- Risk to Self: S / Risk to Others: O (CR62 hospital based risk assessment)
- GAF (Global Assessment of Functioning)

Related Tools:

This list of tools is taken from two local studies as described in the ethics submission – see point 4.

- *(ICSAH) IMPACT OF CHILD STRESS ON ADULT HEALTH SUTDY (Revised For Forensic Mental Health – Permission of Author)* (McFarlane et al 2005). This is a compilation of related tools that examine issues from demographics, childhood

experiences, general health, recent life events and the patient's view of the world. A detailed explanation is provided in the appendices.

- Patients Feelings and Acts of Violence (PFAV) Scale
- Aggression Questionnaire
- Traumatic Antecedents Questionnaire

Other Data Sources to corroborate trauma:

- Clinical Notes (CNAHS)
- Justice Information Systems (JIS from Department for Corrections / Justice)
- Assessment File Reports from the Prisoner Assessment Unit – Yatala Labour Prison
- Childhood Reports from the Families and Communities SA archives
- DG Coder Glenside Hospital
- National Outcomes Case Mix Collection Data

All data will be assessed using Statistical Package for Social Sciences - SPSS (see analysis).

7. OUTCOMES (How will the outcomes of the study be evaluated? Can the aims be realized)?

To have interviewed all accepted participants from an annual survey of Forensic Mental Health Patients in 2007 including current admissions on 1st January 2007. Estimate of between 100 and 150 participants.

To complete a comparative analysis of the data to identify factors of significance, identifying relationships between trauma, mental illness and correctional status.

To publish a report on trends and a comparative analysis of the themes stated in the aims.

8. ETHICAL CONSIDERATIONS

The investigations may cause participants to re-experience or revisit some of the trauma being investigated. Whilst being uncomfortable for some participants, this will be done by an experienced practitioner (over 20 years in Forensic Mental Health) and in a safe environment. It is hoped it will promote a therapeutic response. The CAPS tool for example is designed to be given in a counselling and supportive type approach, elucidating information whilst allowing the patient to discuss aspects of their trauma in an open way.

This population is recognised as a vulnerable group, being mentally ill prisoners, remandees or Forensic Patients (Moser et al 2004). Hence there are important checks of the ability to participate and provide consent. In a recent research study on the topic of mentally ill prisoners being able to consent, it was found that only the most acute would

have difficulty with consent and neither diagnosis nor psychiatric symptoms diminish capacity to consent (McDermott et al 2005). Other authors have commented that this population requires further help and research and that research in this area has been conservative (Lamb 2005). As there are legal responsibilities, an application will also be made to the Department for Correctional Services (DCS) ethics committee. A consent form and explanation sheet will be used as described in the Department for Correctional Services ethics application. The issue of informed consent will be addressed by ensuring the patient has support about consent by involving the patient's Consultant Psychiatrist and primary nurse.

Additional safeguards to support the patient's willing participation is that any intention of a patient to participate will be considered by the Care Team, Primary Nurse and Consultant Psychiatrist prior to involvement (although material from the research will not be discussed with the team). The prison will also have to provide ethical approval through an application directed to the Department for Correctional Services Research Management Committee.

Information from the interviews will be confidential unless the patient makes an express request that the material be made available to a third party. For example a patient may request that the Consultant Psychiatrist is informed of a specific issue. The patient will be offered ways of seeking help from other professionals, at their discretion and supported where necessary to do so.

Access to personal information for all participants, including prison files, clinical files and Families and Communities SA files will require ethical applications to the relevant organizations – see below in other ethic committee submissions.

Interviews will be digitally recorded provided consent is given from the participant; the recordings will only be identified by code, and not by name. The information will be stored securely. Codified access (non-identifiable) will be limited to research personnel of the Department of Psychiatry Adelaide University, and Supervisors stated above. This is to check consistency of data and interview technique. The only people with access to the translation codes will be the main researcher and the Director of the Forensic Mental Health Service. Every effort will be made to ensure anonymity and protection of personal information.

9. SPECIFIC SAFETY CONSIDERATIONS (e.g. Radiation, toxicity)

There are no physical investigations involved other than those that are experienced through the normal hospital admission process.

The interviews will take place within the patient's ward area – interview room on a 1-1 basis following consultation with the care team, consultant psychiatrist and primary nurse.

10. ANALYSIS AND REPORTING OF RESULTS

Statistical analysis using SPSS. The results will be presented as absolute numbers (n) and corresponding percentages (%) or as group means (m) and standard deviation (S.D). Comparison of the data will be made using non-parametric procedures due to the small size

of the population studied (e.g. Kruskal-Wallis, Mann-Whitney, & Friedman) (Brace et al 2006). A significance level will be established at $P < 0.5$. for each data set studied.

The data can be benchmarked using a number of studies including local studies like the bushfire studies (McFarlane et al 2005), and the prevalence of victimisation and violence behaviour study (McFarlane et al 2004). The results will be compared to other international published data such as Spitzer et al 2001, 2003 and Garieballa et al 2006.

The data gathered will cover a number of global areas including mental health, PTSD, and crime including prevalence of (see detailed list of questionnaires in the appendices):

- Demographics / social status / employment / marriage
- Criminal activity over time,
- Mental Health Diagnosis / Symptoms / Admissions
- Alcohol & Other Drugs / Smoking / Gambling
- Childhood Stress
- Major & Cumulative Trauma
- Risk Assessment / Aggression

The results will be published as part of a PhD dissertation and the author will be looking to publish the results in a peer reviewed journal, following approval from the relevant departments stated in the list of ethics committees. Any data published will maintain anonymity of the participants and the relevant organisational permissions will be sought.

11. REFERENCES

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12. OTHER RELEVANT INFORMATION

The forensic mental health service is a unique service within the State of South Australia. Each state has its own forensic hospital. The unit provides a service for Forensic Patients (declared by the courts under section 269 part 8a of the Criminal Law Consolidation Act), including prisoners and remandees from the Department for Correctional Services around South Australia.

13. OTHER ETHICS COMMITTEES TO WHICH THE PROTOCOL HAS BEEN SUBMITTED.

Executive Officer, Research Management Committee
Department for Correctional Services
GPO Box 1747
Adelaide SA 50001

Executive Officer
Families and Communities Research Ethics Committee
Social Inclusion, Strategy & Research
Department for Families and Communities
level 10, CitiCentre
11 Hindmarsh Square
Adelaide SA 5000

14. DATE OF PROPOSED COMMENCEMENT.

1st January 2007 (12 months for interviews /data collection – further 12 months for analysis and report).

15. RESOURCE CONSIDERATIONS

Staffing: Researcher to complete interviews, data collections and analysis of data. Statistician – to assist with data analysis / advice (access through Adelaide University).

Facilities: Computer facilities, data recorder. Photocopying for questionnaires and other information – workplace and Adelaide University.

Medical Records / Forensic Mental Health File / Prison Assessment File & Justice Information System/ Families and Communities SA files: Access: Required to corroborate traumas and offence details (following submission to relevant ethics committees e.g. RAH / Justice / Families and Communities SA).

Funding will be sought to assist above from research scholarships / funding, and government departments such as the Australian Institute of Criminology.

16. FINANCIAL AND INSURANCE ISSUES

- There are no financial or insurance issues.

Appendices:

List of Acronyms:

Acronym	Full
BPRS	Brief Psychiatric Rating Scale
CAPS	Clinical Assessment of PTSD
CIDI	Composite International Diagnostic Interview
CNAHS	Central Northern Adelaide Health Service
DCS	Department for Correctional Services
FMHS	Forensic Mental Health Service
FSA	Families and Communities South Australia
ICSAH	Impact of Child Stress on Adult Health
JIS	Justice Information System
PANSS	Positive and Negative Symptom Scale
PITS	Perpetrator Induced Traumatic Stress
PTSD	Post-Traumatic Stress Disorder
RAH	Royal Adelaide Hospital
SPSS	Statistical Package for Social Sciences
CRUFAD	Clinical Research Unit for Anxiety and Depression

Appendices: Detailed Explanation of Questionnaires to be utilised:

Trauma Specific Tools:

- PCL (Civilian PTSD checklist)
- CAPS (Clinician Administered PTSD scale)
- CIDI (Composite International Diagnostic Interview)

PCL-C: Post-Traumatic Stress Disorder Checklist (Weathers et al 1993):

This is a 17 item checklist using a Likert scale of 1-5 ranging from not at all through to Extreme. The interviewee is asked to state if they have had any of the symptoms over the last month. For example: 'Repeated, disturbing memories, thoughts or images of a stressful experience from the past. These symptoms link to DSM IV criterion. In a sample of 123 Vietnam veterans, the PCL was shown to have reliability of $\alpha=.97$ and a test retest score of $r=.96$. It also had a good sensitivity of .82 and specificity of .83 (Wilson & Keane 2004). The PCL-checklist has three versions and has been shown to be reliable across different contexts, and is now widely used in PTSD research including the mental health context (Mueser et al 2001). When comparing the results from the PCL as a whole, the correlation with the CAPS was 0.929 and diagnostic efficiency was 0.900 (Blanchard et al 1996).

CAPS Clinician Administered PTSD Scale (Blake et al 1995)

This is considered throughout the PTSD literature to set the 'Gold Standard' for assessment (Briere 2004). Originally set as two separate assessment, they were later brought together to form the latest CAPS (Weathers, Keane & Davidson 2001). It uses a survey interview approach which provides a set of standardised questions with prompts for the interviewer. The questions cross the 17 PTSD areas identified in the DSM IV and rate them on a scale of 0-4. However it tests for both frequency (e.g. Never to daily) and the intensity (eg. None to incapacitating). The sum score of both frequency and intensity must add up to at least 4 for the score to be in the accepted range. The test can take around 1 hour to administer (or longer). It has a test-retest reliability of .90 to .98 for the total score and internal consistency of $\alpha=.94$. It has a sensitivity of .84 and specificity of .95 (Wilson & Keane 2004).

WMH (World Mental Health) -CIDI CAPI V.2 (Robins et al 1988; WHO 1997) **Composite International Diagnostic Interview**

The CIDI was developed by the World Health Organisation in 1990 built on the work of Lee Robins et al from their work on the Diagnostic Interview Schedule (DIS). In 1997 the World Health Organisation formed the ICPE (International Consortium of Psychiatric Epidemiology) which employed researchers from 12 countries to test the CIDI which is based on the International Classification of Diseases (ICD) and DSM III-R. The CIDI can be administered by trained lay interviewers, and has a strict question format. When a positive response is given to questions, this leads to a 'probe flow chart' which asks whether particular symptoms are met or not. Negative responses lead to questions being skipped. The CIDI is a composite of modularised assessments on various aspects of mental health and other disorders and the researcher can select the relevant areas for their

study. In this study on the Forensic Mental Health population, the following sections have been selected. Some sections will be administered via a computerised version and others via the paper and pencil version (see list below).

CIDI Sections Used: (PTSD & Forensic Mental Health related topics)

Components of the CIDI

- A. Demographics
- B. Nicotine use disorder
- C. Somatoform and dissociative disorders
- D. Phobic disorders (1-53).....
 Panic disorder (54-62)
- Generalized Anxiety disorder (63-69)
- E. Depressive disorders and dysthymic disorder
- F. Manic and bipolar affective disorder
- G. Schizophrenia and other psychotic disorders.....
- H. Eating disorders
- J. Disorders resulting from the use of alcohol.....
- K. Obsessive-compulsive disorder
- Post-traumatic stress disorder
- L. Substance-related disorders
- M. Dementia, amnesic and other cognitive disorders
- O. Comments by the respondent.....
- P. Interviewer observations
- X. Interviewer Ratings.....

Other components from version 3.0 paper and pencil version:

- 1. Gambling (GM)
- 2. Personality Disorder Screen (P)
- 3. Employment (EM)
- 4. Finances (FN)
- 5. Marriage (MR)
- 6. Adult Demographics (DA)
- 7. Attention-Deficit/Hyperactivity (AD)
- 8. Oppositional-Defiant Disorder (OD)
- 9. Conduct Disorder (CD)
- 10. Separation Anxiety Disorder (SA)

These topics are seen as relevant and linked to both crime and mental health, for example many patients have a substance abuse problem, as well as a mental health disorder. Many issues are missed in the normal admission process and this comprehensive testing will help to pick up on issues that might ordinarily be missed and aid in the assessment of their interaction.

Website: www.hcp.med.harvard.edu/wmhcid/about.php

Mental Health Specific Tools

The following scales are commonly used scales in mental health research and clinical practice. They assist in identifying symptoms and in establishing baselines in the patient's behaviour and mental state. Typically they would be used to measure improvements following treatments such medication or psychotherapy.

- PANSS (Positive and Negative Symptom Scale)
- BPRS (Brief Psychiatric Rating Scale)
- DASS (Depression and Anxiety Symptom Scale)
- DASA Average DASA (Dynamic Appraisal of Situational Aggression)
- Risk to Self: S / Risk to Others: O from CR62 hospital based risk assessment
- GAF Global Assessment of Functioning

PANSS (Positive and Negative Symptom Scale) (Kay et al 1987)

This tool reviews the two phenomenological clusters that are found in patients with a diagnosis of Schizophrenia: Positive symptoms examining items like delusions and hallucinations, and Negative symptoms examining items like withdrawal and poor affect. These are divided into four domains of mood state, anxiety, orientation and abstract reasoning using a 7 point scale from Absent to Extreme. The PANSS is based on all information assessed over a specified period; usually a week. The information is gathered through interview (30-40 minute semi formalised) and primary care staff (Kay et al 1987). When the tool was applied to a group of chronic schizophrenics to test its psychometric properties, it was found to have an internal consistency coefficient for the positive, negative and psychopathology scales of 0.74, 0.69, and 0.64 respectively (Bell et al 1992). The PANSS has been tested for its psychometric properties by a number of authors and has been shown to have good inter-rater reliability for both the positive and negative scales, but this is thought to be modest for the psychopathology scale (Peralta & Cuesta 1994). The tool was developed from two other major psychiatric tools; 18 items from the BPRS and 12 items from the Psychopathology Rating Scale (Kay et al 1987).

BPRS (Brief Psychiatric Rating Scale) (Overall & Gorham 1962)

The BPRS is an 18 item assessment with a score ranging from 1 not present to 7 extremely severe, giving a total possible response range of 18 - 126. The BPRS has demonstrated a good inter-rater reliability score of between 0.87 and 0.97 and is possibly the most frequently used tool in clinical trials (Leucht et al 2005).

DASS (Depression and Anxiety Symptom Scale) (Lovibond & Lovibond 1995)

The DASS is another commonly used clinical tool in the assessment of depression and anxiety. It is a 42 item questionnaire that asks the patient to review a list of statements that says how they might have felt over the last week. The patient then indicates on a scale of 0 did not apply to me at all, to 3 applied to me very much or most of the time. Reliability of the three scales is considered adequate and test-retest reliability is likewise considered adequate with .71 for depression, .79 for anxiety and .81 for stress (Brown et al., 1997).

DASA Average DASA (Dynamic Appraisal of Situational Aggression) (Ogloff & Daffern 2003)

This tool is an efficient method of assessing a patient's day to day level of aggression. The scoring is based on the Broset Violence Checklist and is used to assess the patient over the previous 24 hours, examining items like Irritability, impulsivity, and unwillingness to follow direction. All well-known precursors to aggression. It is an all or nothing score of 0 or 1 and as there are only 7 items, it has a total potential range from 0-7. A score of 3 or more means the patient is high risk resulting in a need for action to avoid such risk (Daffern et al 2005).

CR62 hospital based risk assessment (Scarborough 2005)

This is a local hospital based risk assessment tool that examines 3 specific risks for every patient that is admitted including Aggression to Self (Suicidality), Aggression to Others and Risk of Absconding. The score ranges from 0 = none to 4 = Extreme. There are open sections to identify unique risks. An additional assessment includes aspects of Level of Functioning; Level of Supports Available; History of Response to Treatment, and Attitude to Engagement.

GAF Global Assessment of Functioning (Frances et al 1994) DSM IV - TR

Using a scale from 0 (not enough information) to 100 (optimal health), the clinician is able to provide a rating of the patient's condition using the criterion provided in the GAF e.g. 1-10 = Persistent danger of severely hurting self or others or persistent inability to maintain minimal personal hygiene or serious suicidal act with clear expectation of death. The GAF has shown to be a quick and useful measure in population based surveys and of benefit in clinical practice (Jones et al 1995).

Related Tools:

- ICSAH – Impact of Child Stress on Adult Health
- Patients Feelings and Acts of Violence (PFAV) Scale
- Aggression Questionnaire
- Traumatic Antecedents Questionnaire

ICSAH – adapted for Forensic Mental Health:

(ICSAH) IMPACT OF CHILD STRESS ON ADULT HEALTH SUTDY (Revised For Forensic Mental Health – Permission of Author). This is a compilation of related tools that examine issues from demographics, childhood experiences, general health, recent life events and the patient's view of the world.

The questionnaire booklet will be used as part of the interview process. The facilitator will read out and mark the answer to each question. The patient will have a copy of the booklet

during the interview. An answer sheet will be completed for each patient. This booklet has been adapted from a study by McFarlane, Sawyer, & Hoof 2005 to take into consideration the forensic mental health population. Some of the patients will have been imprisoned for a number of years prior to the investigation, and some will still be on remand.

Section 1: Demographics

Page 1. Social Demographics (20 items)

Section 2: General Health

Page 4 General Health (26 items)
Page 7 Medication (2 items) & Health Care Utilisation (3 items)
Page 9 Risk Factors Height & Weight (3 items) & Smoking (5 items)
Page 10 Alcohol Use (10 items)
Page 12 Quality of Life (SF-12) (12 items)
Page 15 General Health (past few weeks) (34 items)
Page 18 Energy (2 items)

Section 3: Emotional Health

Page 19 Centre for Epidemiological Studies Depression Scale (CES-D) (20 items)
Page 20 Suicidality (Based on MINI) (6 items)
Page 21 Dissociation (TDQ) (38 items)

Section 4: Family and Beliefs

Page 28 MOPS Relationship with mother (15 items)
Page 30 MOPS Relationship with father (15 items)
Page 32 World Assumptions (32 items)
Page 38 Recent Life Events (21 items)
Page 41 Childhood Trauma and Household Experiences (52 items)
Page 49 Impact of Events (Revised) IES-R (22 items)
Page 53 Current Family Contact (4 items)
Page 54 Parental Distress (5 items)

The questionnaire booklet used in this study is divided into 4 areas:

SECTION 1

Composed of a range of demographic questions pertaining to marital status, income, employment, hours out of work, and household environment. Questions were taken from two large epidemiological studies: The Australian National Survey of Mental health and Wellbeing (Australian Bureau of Statistics, 1998) and the SERCIS Study (Taylor et al, 1997).

SECTION 2

Assesses General Health across 5 main domains; health problems and health care utilisation; risk factors (cigarette use, alcohol and height and weight); quality of life;

somatic and psychological symptoms and energy levels.

SECTION 3

Asks a series of questions to assess emotional wellbeing. The three domains of assessment are depression (subtle symptoms), suicidality and dissociation.

SECTION 4 (5 subsections)

Assesses each individual's family environment as a child and their current belief systems

Measures common life events occurring over the last 12 months that may be deemed stressful to the individual.

Utilises questions from a large-scale Californian study assessing adverse childhood experiences. Questions relate to seven main domains of traumatic childhood events.

Explores the impact of the offence as a stressor using the Impact of Event Scale (Revised).

Finally the last part deals with a series of questions to assess relationship and support from family members, especially the perceived distress caused to parents.

QUESTIONNAIRES INCLUDED:

AUDIT (Alcohol Use Disorders Identification Test, World Health Organization 1992)

The Alcohol Use Disorders Identification Test (AUDIT) is an instrument specifically designed to identify hazardous and harmful alcohol use in primary health care settings (Saunders, Aasland, Babor, de la Fuente, Grant, 1993). AUDIT identified significantly more cases of drinkers than other instruments (McCusker, Basquille, Khwaja et al, 2002) and has high sensitivity (89% to 96%) and specificity (91% to 96%) (Hearne, Connolly, Sheehan, 2002; and Isaacson, Butler, Zacharek, Tzelepis, 1994). It is suitable for both males and females (Aerteerts, Buntinx, ansoms, Fevery, 2001) and does not seem to be affected by ethnic and bias (Steinbauer, Cantor, Holzer, Volk, 1998). AUDIT has also proved to be valid and reliable as a self-administered instrument incorporated within a health risk screening questionnaire to identify at risk drinkers and alcohol-dependent individuals in primary care setting (Daeppen, Yersin, Landry, et al, 2000). The version we are using has been slightly modified for Australia by the Centre for Drug and Alcohol Studies, Department of Psychological Medicine, Sydney University.

SF-12: 12 item Short Form Health Survey (Ware et al, 1996.)

A 12-item (two minute) questionnaire developed from the SF-36® Health Survey for use in monitoring perceived health status in general and specific populations. This survey has been shown to yield summary Physical and Mental health outcome scores that are interchangeable with those from the SF-36® (Jenkinson et al, 1997, Ware et al, 1996, Sanderson et al, 2002, Wilson et al, 2002). Assessing health-related quality of life, it has been used extensively as a screening tool and should only take approximately 3 minutes to complete. Because of its brevity, it is frequently imbedded into longer, condition-specific surveys. The SF12 Physical and mental components scores correlate highly with their SF36 counterparts (0.95 and 0.96 respectively) (Ware et al, 1996). Test retest reliability is

also adequate for both the physical component (0.89) and the mental component (0.76) of the questionnaire.

SPHERE (Hickie, Davenport, Hadzi-Pavlovic et al, 2001)

The SPHERE-34 is a self-report screening tool for common mental disorders. It is comprised of two subscales: PSYCH-6 (assessing psychological symptomatology) and SOMA-6 (assessing somatic symptomatology) and is used to identify two levels (3 types) of mental disorder. Very useful for identifying mental disorder in general medical settings, scores have been shown to be a strong indicator of the patient's level of disability, risk as a consequence of their symptoms, current and past psychiatric diagnosis and reported reason for presentation to a GP. Both subscales have high internal consistency (PSYCH-6: 0.90; SOMA-6: 0.80) and test-retest reliability (PSYCH-6: 0.81; SOMA-6: 0.80) (Hickie et al, 2001). Sensitivity for detecting current psychiatric diagnosis was 93% for the two subscales combined.

CES-D (Radloff, 1977) (an adjunct to the depression section of the CIDI)

The Centre for Epidemiological Studies-Depression (CES-D) scale is a 20 item self-report questionnaire designed to measure depressive symptomatology in epidemiological and community studies. Recommended for use as a screening tool rather than a diagnostic tool (Coyne, Schwenk, Smolinski, 1991) it has been shown to be useful in detecting major depression as well as generalised anxiety (Breslau, 1985, Orme et al, 1986). It has high internal consistency when administered to both a general population (0.85) and a group of psychiatric patients (0.90), and adequate test-retest reliability over short time periods (0.51-0.67 over a period of 2 to eight weeks) (Radloff and Locke, 1986; Radloff, 1977). Specificity is high provided a cut off of 16 is used (Radloff and Locke, 1986; Radloff, 1977). For the purpose of our study we have chosen to include only 5 of the 20 items. These items reflect some of the subtle feelings associated with depressive syndromes that are often neglected in diagnostic measures of depression: "I was bothered by things that don't usually bother me"; "I felt lonely"; "People were unfriendly"; "I enjoyed life"; "I felt that people disliked me".

MINI- Mini International Neuropsychiatric Interview Version 5.5 (Sheehan, Janavs, Baker, Harnett-Sheehan et al, 1998). (used as an adjunct to the CIDI depression section which does not assess suicide sufficiently)

The Mini International Neuropsychiatric Interview (MINI) is a short structured diagnostic interview based on the DSM-IV and the ICD-10 classification of mental illness to be used in clinical trials and epidemiological studies (Sheehan, Lecrubier, Sheehan, et al., 1998). Investigating 23 disorders (all current, some lifetime), it has good reliability for all diagnosis when compared to the CIDI (above 0.50 for all diagnoses except social phobia and GAD), but takes considerably less time to administer (Sheehan et al, 1998). Sensitivity is above 0.70 for all diagnoses except panic agoraphobia, simple phobia and lifetime bulimia, and specificity is higher than 0.70 for all diagnoses (Sheehan et al, 1998). Inter-rater reliability is also high (kappa values above 0.75) and test-retest reliability is adequate (Sheehan et al, 1998). For the purpose of our study we have chosen to include the Suicide section only. Part 2 of the study requires administration of the CIDI, and hence including the other sections of the MINI would be redundant. The suicide section of the MINI, consists of 6 questions, which are given different weights according to the level of risk

associated with that symptom. A score of 0 indicates no risk, a score of 1-5 suggests a low suicide risk, 6-9 Moderate and 10 or greater – high suicide risk.

TDQ- TRAUMATIC DISSOCIATION QUESTIONNAIRE (Murray, Ehlers and Mayou 2002)

The Traumatic Dissociation Questionnaire (TDQ) is a 38-item self-report questionnaire devised from a number of other widely used dissociation questionnaires such as the Dissociative Experiences Scale (DES). It is comprised of seven subscales and a total score: Detachment from others and the world, sense of split self, lability of mood and impulsivity, inattention and memory lapses, emotional numbing, confusion and altered time-sense, amnesia for important life events and total trait dissociation. Internal consistency is high (.93 –Students, .92 MVA victims, and .94-.96 for assault survivors) (Murray, 1997) as is test-retest reliability (.86-students, .82 MVA survivors) (Murray, 1997; Murray et al, 2002; Halligan et al., in press).

MOPS- MEASURE OF PARENTING STYLE (Parker, Roussos, Hadzi-Pavlovic, Mitchell, Wilhelm and Austin, 1997).

The Measure of Parenting Style Questionnaire (MOPS) was created from a refined version of the Parental Bonding Instrument (PBI: Parker, Tupling and Brown, 1979) together with some additional items relating to parental abuse. It consists of three subscales: Parental Indifference, Parental Overcontrol and Parental Abuse. Internal consistency of the three subscales is high: indifference (0.93 for both maternal and paternal indifference); Overcontrol (0.82-maternal, 0.76-paternal); abuse (0.87- maternal, 0.92-paternal). (Parker et al, 1997) The indifference scale has been shown to correlate highly with the PBI Care scale (-0.76 to -0.79) and the Over control scale correlates highly with the original PBI protection scale, indicating the potential use of the MOPS as a shortened version of the PBI. Unlike the PBI however, the MOPS has the added advantage of incorporating a third dimension to specifically assess parental abuse. The MOPS has been psychometrically tested in depressed and anxious patients (Parker et al, 1997, Parker et al, 1999)

WAS - WORLD ASSUMPTION SCALE (Janoff-Bulman, 1989)

The World Assumptions Scale is a 32 item self-report questionnaire designed for measuring an individual's core belief system about themselves and the world. Especially suitable for use in studies of trauma victims, it assesses three categories of assumptions: Benevolence of the World: the extent to which an individual perceives the world positively or negatively; Meaningfulness of the world: the beliefs people have about how outcomes are distributed in the world; and Worthiness of Self: one's beliefs about oneself. Scoring is based on a 6 point scale ranging from strongly disagree to strongly agree (Janoff-Bulman, 1989).

RLE- RECENT LIFE EVENTS QUESTIONNAIRE (Adapted from Brugha, 1985)

The Recent Life Events questionnaire used in this study is one devised from Brugha (1985) with nine additional items. It is used to measure common life events that have occurred in the individual's life and that may be deemed threatening. Each item is scored 1 if it has happened in the past 12 months, 0 if it has not happened and 2 if the event is still having an impact on the individual's life. The number of events occurring over the last 12 months are then summed to produce a total score. There is no data on internal consistency or norms to

date. Test-retest reliability is expected to be low especially over long time periods due to the nature of the questionnaire.

CHILDHOOD TRAUMA AND HOUSEHOLD EXPERIENCES (FROM ACE STUDY, Felitti et al, 1998) (used as an adjunct to the PTSD section of the CIDI- to allow a detailed assessment of childhood trauma)

This section of the booklet is composed of a subset of questions used in a large scale in California known as the Adverse Childhood Experiences Study (ACE) Study. This study, based at Kaiser Permanente's San Diego Health Appraisal clinic investigated the long-term relationship between childhood experiences and health problems in 9508 adults. Seven main categories of adverse childhood experiences were assessed: psychological, physical abuse, sexual abuse, and household dysfunction due to substance abuse, mental illness, violence towards mother, or criminal behaviour. Participants are defined as exposed to each category if they answer yes to one or more questions in that category (Felitti et al, 1998). Our study utilises the seven categories reported above, together with additional questions relating to childhood neglect, suicide in family, alcohol and drug use within the family, and family structure. A summary score of the total number of categories endorsed will be used in the final analysis.

IES-R – IMPACT OF EVENTS SCALE (WEISS AND MARMAR, 1995)

The Impact of Events Scale Revised (Weiss and Marmar, 1997), is a 22 item self-report questionnaire used to examine the psychological response to a traumatic stressor. Devised using the 15 items of the IES with seven additional items to assess hyperarousal symptoms, the IES-R assesses three fundamental types of PTSD symptoms: intrusion, avoidance and hyperarousal. Scoring is based on a 5-point scale ranging from 0-not at all to 5-extremely and all questions refer to the level of distress caused by the event over a seven-day period. Psychometrically tested in emergency service personal and earthquake survivors, the IES-R has been shown to have very high internal consistency for all subscales: Intrusion (.87-.92); Avoidance (.84-.86) and Hyperarousal (.79-.90) (Weiss and Marmar, 1997). Test-retest reliability is also adequate: Intrusion (.57-.94); Avoidance (.51-.89) and Hyperarousal (.59-.92), especially when the event is recent and the time between assessments is short (Weiss and Marmar, 1997). Participants who are willing to answer these questions about their offence and arrest will be asked to complete the questionnaire. The results can be compared to studies done with other local populations such as those in the bushfire study.

Patients Feelings and Acts of Violence (PFAV) Scale (Plutchik & Van Praag 1990)

This is a 12 item questionnaire that uses a 4 point likert scale from never to very often, questioning patients on their anger and history of violence e.g. Have you ever hit or attacked someone who is not a member of your family. This and the two following questionnaires: Aggression Questionnaire and the Traumatic Antecedents Questionnaire were used in the 'Prevalence of Victimisation, PTSD and Violence Behaviour in the Serious Mentally Ill' study which took place at the Queen Elizabeth Hospital South Australia (McFarlane et al 2004). It provides an opportunity to compare results with another local psychiatric population in relation to traumas experienced.

Aggression Questionnaire (Buss & Perry 1992)

A 29 item questionnaire assessing the patient's perspectives on aggression which uses a 5 point Likert scale from 'Extremely uncharacteristic of me' to 'Extremely characteristic of me'. E.g. 'Given enough provocation, I may hit another person'.

Traumatic Antecedents Questionnaire (TAQ) (Herman et al 1989)

The Traumatic Antecedents Questionnaire (TAQ) is a 42 item structured instrument to assess experiences from childhood through to adulthood in the range of: early childhood (0-6), childhood (7-12), adolescence (13-18) or adulthood. Many of our forensic clients have had varying supports throughout their childhood and adulthood. This will aid in the assessment of family relationships, support level, and experiences during these eras.

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Notes:

APPENDIX B

ETHICS APPROVAL

b. Ethics Approval

For ethics approval response – see appendix F

Letter to Committee in response to a request for further information:

Dr Michael James
Chairman – Research Ethics Committee
North Terrace
Adelaide,
SA 5000

Wednesday, 21 August 2013

Re: Feedback on protocol “**Post-Traumatic Stress and related disorders in Forensic Mental Health**”

Thank you and your Committee for taking the time to review the protocol submitted on 19th October 2006. I have provided a response to each of the 6 points stated in your correspondence as follows:

1. It should be assured that all participants have an adequate reading age.

As expressed in the International Adult Literacy Survey (IALS 1996) there are widespread literacy skill deficits in the adult population:

Over 6 million Australian adults (47%) don't have adequate literacy skills to cope with the demands of everyday life and work (level 1/2). Only 17% of adult Australians had literacy skills at levels 4/5.

(Anecdotal reports have compared the average reading age of between 9-12 years of age)

In Australia 48% of those who did not speak English as their first language were at level 1 on the prose scale and only 7.5% were at levels 4/5. Of those who spoke English as their first language, 14% were at level 1 and 19% at level 4/5.

Adult literacy in OECD countries, (Kirsch et al 1998)

As almost half of the population are likely to have some reading difficulties (Saranjit & Lennard 2004), it is not intended to exclude this part of the sample, but to provide them with assistance from their primary nurse in understanding the consent form. The primary nurse and Consultant also countersign the consent form prior to participation, ensuring each research candidate is suitable (see new version of consent form attached). The researcher completes the questionnaires by asking the questions directly to the

interviewee, therefore requiring only limited reading ability from the participant. For those that are unable to read at all or show an indication of intellectual impairment, they will be excluded from the study. The ability to read is assessed upon admission as part of the admission process, during the initial nursing & medical interview. They also receive a full assessment from a psychiatric registrar, and education level is assessed and discussed as part of their clinical presentation at the multidisciplinary care team meeting. Any person that expresses an obvious difficulty in reading or states that they have difficulty with reading will have the offer of having their consent form read to them in the presence of a witness (primary nurse) or be excluded and this will be recorded. Additional measures include the assessment of educational achievement as part of the CIDI, and to confirm reading ability the Mini Mental State Examination will be completed and this includes the ability to read a statement and follow instructions (WHO 1997). Again, exclusion will occur if the patient cannot read at all or if there is only some difficulty in reading they will have the offer of having their consent form read to them in the presence of a witness. An attempt will be made to discern this difficulty at the briefing stage, when the decision will be made to exclude or to note the requirement of further assessment and support.

Kirsch, I. S., Jungeblut, A., & Mosenthal, P. B. (1998). The measurement of adult literacy. In T. S. Murray, I. S. Kirsch, & L. Jenkins (Eds.), *Adult literacy in OECD countries: Technical report on the first international adult literacy survey*. Washington, DC: U.S. Department of Education, National Centre for Education Statistics.

Saranjit, S. & Lennard, L. (2004) Health Literacy. National Consumer Council. UK.

World Health Organization (1997), Composite International Diagnostic Interview (CIDI) Core Version 2.1 Interviewers Manual. WHO.

2. The Information Sheet should have a separate RISKS section, which lists the risks. These should include possible deteriorations in mental state, etc.

The information sheet now has a “Risks of the study” section included to identify that there is a possibility of deterioration in mental state (see copy of modified ‘Information Sheet’ attached). However the terms ‘distress’ and ‘may make your worries worse’ were used to ensure it fits in with the reading level issues stated in point 1. It is anticipated that some patients may not understand the term ‘mental state’. A ‘Briefing Interview’ has now been added to the interview checklist – see attached, which involves an explanation given about how discussing past traumas can be distressing for some people, and how this may churn up old memories. The briefing will also include options for seeking help if this were to occur. In addition to the patient being approached about the research and asked to sign the consent form, the primary nurse and consultant psychiatrist will also be asked to sign the consent form. This is to ensure that the patient is stable enough to be involved in the project (see consent form with new signatory section - attached).

3. There are many questionnaires / tests. The information sheet should state how long participation in this study will require.

A new section of ‘Total Participation Time’ has now been added, identifying that there are 3 main sections to the questionnaire each taking between 1 hour and 1.5hrs, but this can be divided into smaller chunks to fit in with the patient’s daily routines. In reality, these may be as short as 15 minute sessions over many weeks. The interviews will be held in a relaxed environment and there will be opportunities to break for refreshments. It is worthy

of note that some of the patients are held in our service for many years, allowing the questionnaires to be held over a number of months. The shortest stay within the service is around 1 calendar month (but is invariably longer), and the average stay is around 3 to 6 months.

4. Given this large number of questionnaires / tests, please provide comment on whether all are needed and whether each has adequate validity and reliability. For example, in CES-D, only 5 of 20 items will be used. Wouldn't this diminish the validity of this tool?

Following your feedback, it is agreed that the whole of the CES-D should be used, as a shortened version would reduce its validity. There are a lot of questionnaires in this study, and it may appear as if there were more as many of the subsections of the questionnaires have been listed e.g. For the CIDI and the ICSAH. It is agreed however that the amount of questionnaires could be rationalised and some will now be eliminated from the study:

Tools eliminated from study and will not be used:

- **DASS**
- **PANSS**
- **Traumatic Antecedents Questionnaire**

The use and choice of the questionnaires was designed so that we can compare the research with international data and 2 significant local studies on posttraumatic stress. The questionnaire types can be divided into 3 major sections and further explanation will be given for their use in separate sections when discussing their validity and reliability: International tools used in the assessment of PTSD; Established / Published local studies; and Standard Clinical Tools. The clinical tools sections are tools that are currently being used within the forensic mental health service as part of the ongoing clinical assessment. Advantage can be taken of this convenient data to identify any trends that relate to post-traumatic stress, for example the expression of aggression. The exception to this is the PANSS; this is a detailed assessment that occurs through a standardised structured interview process that takes around 1 hour, but this has now been eliminated as it is covered by the BPRS – see validity and reliability section.

The validity and reliability for all tools are discussed at the end of the letter, due to large amount of information required – see appendix on page 4.

5. Delete statement re pregnancy from the consent form. This is not relevant.

This section has now been deleted – as requested.

6. Will there be a debriefing interview at the conclusion of someone's participation? Please comment on this.

The patient is being constantly monitored on a clinical basis within our service, however, to support the obligations of the research a number of steps have been added in relation to debriefing participants (Tesch 1977; Marans 1988; Detterman & Reed 1977). One week following the research, an interview will be held with the patient to see if there are any issues from their participation in the research and this has been added to the research checklist. If any difficulties are identified such as the need to resolve ongoing anxieties or distress, additional resources will be put in place to provide support. In

agreement with the individual, this includes utilising members of the clinical team. One specific member of the team, the Senior Forensic Psychologist Mr John Bell, has agreed to provide follow up of any individual who requires support as a complication of the research. Following discussion with the researchers involved in the 2 local studies utilising similar tools, this is likely to be few in number, if any. McAlpine et al (2002) in their review of the literature on 'research debriefing' identified that there is little guidance on the how, why and when this should be completed. However, there is a clear ethical obligation on the researcher to ensure that no harm is done to the participant and that attempts are made to ensure they are no worse off after the research. It is unfortunate that whilst attempting to do a literature search in this area, the search engines confuse it with psychological debriefing following traumatic incidents (or critical incident stress debriefing). In summary: a follow up interview will occur 1 week after the interviews have occurred, with acknowledgement that all the patients within the forensic mental health service are under constant supervision throughout their stay.

Detterman, D.K. & Reed, S.K 1977 Effectiveness of Debriefing. *American Psychologist*. September, pp 780 –782.

Marans, D.G. 1988, Addressing Research Practitioner and Subject Needs: A debriefing disclosure procedure. *American Psychologist*; October pp 826-828.

McAlpine, L. Weston, C. & Beauchamp, C. 2002, Debriefing interview and colloquium: How effective are these as research strategies. *Instructional Science*. 30, pp 403 – 432.

Tesch, F.E. 1977, Debriefing Research Participants: Though This Be Method There Is Madness To It. *Journal of Personality and Social Psychology* Vol. 35, No. 4, pp 217-224.

I hope this answers your request for further information. I would be happy to receive further guidance from you and your Committee. As there may be a delay in gaining approval for the research – the start date will be delayed until approval is obtained, and will take place for a 12 month period following acceptance by the committee (e.g. Feb 07 – 08).

Yours Sincerely,

Mike Musker
Clinical Nurse Consultant.
Forensic Mental Health Service.

Appendix for question 5 - Validity and Reliability:

The research can be divided into three key areas and information will be given under these headings of International tools used in the assessment of PTSD tools; Established / Published local studies (comparative data); and Standard Clinical Tools (used in current practice). There will be only 1 interviewer throughout the research project. The patients involved will be requested for their permission to use audio recording of the interviews, so a second researcher from the Department of Psychiatry can assess the quality and inter-rater reliability of the data. The patient is advised of this in the briefing interview and the second rater will not know the identity of the patient concerned only their ID number. Guidance will be sought on interview technique or research issues or unanticipated difficulties from the supervisors involved, using the audio recording for feedback: Professor Alexander McFarlane and Dr Ken O'Brien.

International tools used in the assessment of PTSD (gold standard);

CAPS (The Clinically Administered PTSD Scale)

The Clinically Administered PTSD Scale (CAPS) was initially validated using veterans, but has since been used in a variety of different health populations including victims of crime, car accidents, environmental catastrophes, and terrorism (Weathers et al 2001). It has also been used to examine a forensic population, similar to this study (Spitzer 2001). The NICE (National Institute of Clinical Excellence) Guidelines on PTSD cites the CAPS as a 'Well Validated, structured clinical interview that facilitates diagnosis of PTSD' (NICE 2005). In a 10-year review of the literature, which examines the validity (including content, criterion, and construct) and reliability of this tool, over 210 studies had cited the use of the CAPS (Weathers et al 2001). The review identifies how the tool was developed through the National Centre for PTSD in Boston and the validity was tested through numerous projects with case controlled designs. Inter-rater reliability from .92 to .99 was found, and when it was compared to many other research tools in this PTSD area (such as the Structured Clinical Interview for DSM) revealed alpha coefficients ranging from .73 - .85. At the symptom cluster level, reliability coefficients was shown to be between .92 and 1.00 for frequency and .92 to .98 for intensity – these are the two measures for each criterion. The alphas for each cluster were .63 for re-experiencing, .78 for avoidance and numbing .79 for hyperarousal, and .89 for all 17 PTSD core symptoms (ibid). Many texts refer to the unusual strengths of the CAPS in the area of validity and reliability when used for assessment for PTSD (Foa et al 2000). One book actually refers to it as 'the gold standard for structured clinical interviews for PTSD' (Briere 2004 page 129).

Blake, D.D, Weathers, F.W, Nagy, L.M., Kaloupek, D.G, Gusman, F.D., Charney, D.S, et al. 1995 The Development of a Clinician Administered PTSD Scale. *Journal of Traumatic Stress*, 8:75-90.

Briere, J. 2004, *Psychological Assessment of Adult Posttraumatic States* 2nd Edition. American Psychological Association. Washington.

Foa, E., Keane, T.M., & Friedman, M.J. 2000, *Effective Treatments for PTSD*. Guildford Press. New York.

NICE 2005, *Post-Traumatic Stress Disorder: The Management of PTSD in Adults and Children in Primary and Secondary Care*. National Clinical Practice Guideline Number 26. Royal College of Psychiatrists and British Psychological Society.

Weathers, F.W., Keane, T.M., & Davidson, J.R.T. 2001, *The Clinician Administered PTSD Scale: A review of the first ten years of research*. *Depression and Anxiety*, 13: 132-142.

156.

Weathers, F.W., Litz, B. T., Herman, D.S., Huska, J.A., Keane, T.M. 1993, Reliability, validity, and diagnostic utility, Paper presented at the annual meeting of the International Society for Traumatic Stress Studies, San Antonio, TX.

Spitzer, C. et al. 2001, Post-Traumatic Stress Disorder in Forensic Inpatients. *The Journal of Forensic Psychiatry* 12:1:63-77

CIDI (Composite International Diagnostic Interview) – version 2.1

The CIDI was developed from the earlier 'Diagnostic Interview Schedule' developed by Robins et al in 1981. The CIDI was designed to provide a standardised tool that would assist with diagnosis through a highly structured interview that can be administered by lay people (provided they have received training from an approved WHO site). It has been translated into many languages and provides diagnosis using the DSM IV and the ICD 10 classifications.

World Health Organization field trials studies found good test-retest reliability for the CIDI (using test-retest intervals 1-6 days). Most diagnosis had agreement rates that exceeded 85%; many over 90%. Corresponding kappa statistics were somewhat lower, ranging from 0.52 for dysthymia to 0.84 for panic disorder. In terms of joint reliability, the agreement for all diagnosis was over 97%, with kappa coefficients for joint reliability larger than 0.90 in the majority of cases. Only somatization disorder (kappa 0.67) was found to have less than excellent joint reliability.

Validity studies using the CIDI core version 1.0 to determine the instruments overall diagnostic concordance with both DSM-III-R and ICD-10 yielded good results. Clinicians used DSM and ICD checklists to assess diagnosis in subjects who had been administered the CIDI. Kappa statistics were calculated for overall diagnostic concordance between the DSM-III-R checklist and the CIDI (0.78) and for three diagnostic groups: anxiety or phobic disorders (0.76), depressive disorders (0.84), and substance use disorders (0.83). Similar levels of concordance between ICD-10 diagnostic groups and the CIDI were reported: overall (kappa = 0.77), anxiety or phobic disorders (kappa = 0.73), depressive disorders (kappa = 0.78) and substance use disorders (0.83).

Robins, L.N., Wing, J., Wittchen, H.U., & Helzer, J.E. 1988, The Composite International Diagnostic Interview: An epidemiological instrument suitable for use in conjunction with different diagnostic systems and in different cultures. *Archives of General Psychiatry*, 38: 381-389.

Skodol, A. E. & Bender (2000) Diagnostic Interview for Adults, Chapter 6 (p61-65) In: *Handbook of Psychiatric Measures*. American Psychiatric Association: Washington DC.

Wittchen, H. U. (1994) Reliability and validity studies of the WHO – Composite International Diagnostic Interview (CIDI): a critical review. *J Psychiatric Res* 28:57-84

World Health Organization (1993): *Composite International Diagnostic Interview, Version 2.1*. Geneva, World Health Organization.

PCL-C: Post-Traumatic Stress Disorder Checklist (Weathers et al 1993):

The PCL is commonly used quick checklist that is utilised in conjunction with other more detailed tools as a screening mechanism. It is a 17 item checklist using a Likert scale of 1-

5 ranging from not at all through to Extreme. The interviewee is asked to state if they have had any of the symptoms over the last month. For example: 'Repeated, disturbing memories, thoughts or images of a stressful experience from the past. These symptoms link to DSM IV criterion. In a sample of 123 Vietnam veterans, the PCL was shown to have reliability of $\alpha=.97$ and a test retest score of $r=.96$. It also had a good sensitivity of .82, and specificity of .83 (Wilson & Keane 2004). The PCL-checklist has three versions and has been shown to be reliable across different contexts, and is now widely used in PTSD research including the mental health context (Mueser et al 2001). When comparing the results from the PCL as a whole, the correlation with the CAPS was 0.929 and diagnostic efficiency was 0.900 (Blanchard et al 1996).

Blanchard, E.B., Jones-Alexander, J., Buckley, T.C. & Forneris, C.A. 1996, Psychometric Properties of the PTSD Checklist (PCL). *Behav. Res. Ther* 34: 8: 669-673

Mueser, K.T, Salyers, M.P., Rosenberg, S.D. et al. 2001, Psychometric Evaluation of Trauma and Post-traumatic Stress Disorder Assessments in Persons with Severe Mental Illness. *Psychological Assessment*, 12:110-117.

Wilson, J.P. & Keane, T.M. 2004, *Assessing Psychological Trauma and PTSD 2nd Ed.* Guildford Press. London.

Established / Published Local studies (Comparative Data)

ICSAH adapted from the Bushfire Studies

(ICSAH) IMPACT OF CHILD STRESS ON ADULT HEALTH STUDY (Revised For Forensic Mental Health). This is a compilation of related tools that examine issues from demographics, childhood experiences, general health, recent life events and the patient's view of the world. Many of the questionnaires are very brief and the whole section of this interview is anticipated to take around 1 hour.

AUDIT (Alcohol Use Disorders Identification Test, World Health Organization 1992)

The Alcohol Use Disorders Identification Test (AUDIT) is an instrument specifically designed to identify hazardous and harmful alcohol use in primary health care settings. AUDIT identified significantly more cases of drinkers than other instruments (McCusker, Basquille, Khwaja et al, 2002) and has high sensitivity (89%to 96%) and specificity (91% to 96%) (Hearne, Connolly, Sheehan, 2002; and Isaacson, Butler, Zacharek, Tzelepis, 1994). It is suitable for both males and females (Aerteerts, Buntinx, ansoms, Fevery, 2001) and does not seem to be affected by ethnic and bias (Steinbauer, Cantor, Holzer, Volk, 1998). AUDIT has also proved to be valid and reliable as a self-administered instrument incorporated within a health risk screening questionnaire to identify at risk drinkers and alcohol-dependent individuals in primary care setting (Daepfen, Yersin, Landry, et al, 2000). The version we are using has been slightly modified for Australia by the Centre for Drug and Alcohol Studies, Department of Psychological Medicine, Sydney University. In a study of 989 students, Cronbach's alpha was 0.80. The audit was especially highly correlated with other self-report measures such as MAST ($r=0.88$) (Rounsaville & Poling 2000).

Aertgeerts B, Buntinx F, Ansoms S, Fevery J. 2001, Screening properties of questionnaires and laboratory tests for the detection of alcohol abuse or dependence in a general practice population. *British Journal of General practice*, 51(464): 206-17.

Babor, T.F, Bohn, M.J., & Kranzler, H.R (1995) The Alcohol Use Disorders Identification Test (AUDIT): validation of a screening instrument for use in medical settings. *J.Stud Alcohol* 56(4); 423-432.

Daepfen JB, Yersin B, Landry U, Pecoud A, Decrey H. 2000, Reliability and validity of the Alcohol Use Disorders Identification Test (AUDIT) imbedded within a general health risk screening questionnaire: results of a survey in 332 primary care patients. *Alcoholism, Clinical and Experimental Research*, 24(5): 659-65.

Hearne R, Connolly A, Sheehan J. 2002, Alcohol Abuse: prevalence and detection in a general hospital. *Journal of the Royal Society of Medicine*, 95(2): 84-7.

Isaacson JH, Butler R, zacharek M, Tzelepis A. 1994, Screening with the Alcohol use Disorders Identification Test (AUDIT) in an inner city population. *Journal of General Internal Medicine*, 9(10): 550-553.

McCusker MT, Basquille J, Khwaja M, Murray Lyon IM, Catalan J. 2002, Hazardous and harmful drinking: a comparison of the AUDIT and CAGE screening questionnaires. *QJM monthly journal of the association of Physicians*, 95(9): 591-595.

Rounsaville, B.J, & Poling, J. (2000) Substance Use Disorders Chapter 22 In: *Handbook of Psychiatric Measures*. American Psychiatric Association: Washington DC.

Steinbauer JR, Cantor SB, Holzer CE, Volk RJ. 1998, Ethnic and sex bias in primary care screening tests for alcohol use disorders. *Annals of Internal Medicine*, 129(5): 353-62.

World Health Organisation (WHO). 1992, *Audit: The Alcohol Use Disorders Identification Kit: Guidelines for use in Primary Health Care*. World Health Organization.

SF-12: 12 item Short Form Health Survey (Ware et al, 1996.)

A 12-item (two minute) questionnaire developed from the SF-36® Health Survey for use in monitoring perceived health status in general and specific populations. This survey has been shown to yield summary Physical and Mental health outcome scores that are interchangeable with those from the SF-36® (Jenkinson et al, 1997, Ware et al, 1996). Assessing health-related quality of life, it has been used extensively as a screening tool and should only take approximately 3 minutes to complete. Because of its brevity, it is frequently imbedded into longer, condition-specific surveys. The SF12 Physical and mental components scores correlate highly with their SF36 counterparts (0.95 and 0.96 respectively) (Ware et al, 1996). Test retest reliability is also adequate for both the physical component (0.89) and the mental component (0.76) of the questionnaire.

The SF36 scales have been reported in 14 studies representing a range of patient populations and situations. Samples sizes ranged from 39 – 9385. Estimates or internal consistency (alpha coefficients) ranged from 0.62 to 0.94; the majority of scores exceeded 0.80. Test retest coefficients ranged from 0.43 – 0.90 for a 6 month interval and from 0.60 to 0.81 for a 2 week interval. Studies have shown that the SF36 can be used to collect valid and accurate self-reports of change in general health status over a 1 year period (Lehman et al 2000).

Jenkinson C, Layte R. (1997), Development and testing of the UK SF-12 (short form health survey). *Journal of Health Services Research and Policy*, 2(1): 14-8.

Lehman, A. F., Azrin, S.T, & Goldberg, R.W. (2000) General Health Status, Functioning and Disabilities Measures Chapter 9 (p128-129) In: *Handbook of Psychiatric Measures*. American Psychiatric Association: Washington DC.

Ware J, Kosinski M, Keller SD. (1996) A 12-item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34(3): 220-233.

SPHERE (Hickie, Davenport, Hadzi-Pavlovic et al, 2001)

The SPHERE-34 is a self-report screening tool for common mental disorders. It is comprised of two subscales: PSYCH-6 (assessing psychological symptomatology) and SOMA-6 (assessing somatic symptomatology) and is used to identify two levels (3 types) of mental disorder. Very useful for identifying mental disorder in general medical settings, scores have been shown to be a strong indicator of the patient's level of disability, risk as a consequence of their symptoms, current and past psychiatric diagnosis and reported reason for presentation to a GP. Both subscales have high internal consistency (PSYCH-6: 0.90; SOMA-6: 0.80) and test-retest reliability (PSYCH-6: 0.81; SOMA-6: 0.80) (Hickie et al, 2001). Sensitivity for detecting current psychiatric diagnosis was 93% for the two subscales combined.

Hickie IB, Davenport TA, Hadzi-Pavlovic D, Koschera A, Naismith SL, Scott EM, Wilhelm KA. 2001, Development of a simple screening tool for common mental disorders in general practice. *Medical Journal of Australia*, 175: S10-S17.

CES-D (Radloff, 1977) (an adjunct to the depression section of the CIDI)

The Centre for Epidemiological Studies-Depression (CES-D) scale is a 20 item self-report questionnaire designed to measure depressive symptomatology in epidemiological and community studies. Recommended for use as a screening tool rather than a diagnostic tool (Coyne, Schwenk, Smolinski, 1991) it has been shown to be useful in detecting major depression as well as generalised anxiety (Breslau, 1985, Orme et al, 1986). It has high internal consistency when administered to both a general population (0.85) and a group of psychiatric patients (0.90), and adequate test-retest reliability over short time periods (0.51-0.67 over a period of 2 to eight weeks) (Radloff and Locke, 1986; Radloff, 1977). Specificity is high provided a cut off of 16 is used (Radloff and Locke, 1986; Radloff, 1977). All of the 20 items will be utilised. The items reflect some of the subtle feelings associated with depressive syndromes that are often neglected in diagnostic measures of depression: "I was bothered by things that don't usually bother me"; "I felt lonely"; "People were unfriendly"; "I enjoyed life"; "I felt that people disliked me".

Internal consistency as measured by Cronbach's alpha is high across a variety of populations (generally around 0.85 in community samples and 0.90 in psychiatric samples. Split half reliability is also high, ranging from 0.77 to 0.92. Test-retest reliability studies ranging over 2-8 weeks show moderate correlations ($r = 0.51-0.67$). In a study of the utility of the CES-D in discriminating depression in 406 psychiatric outpatients with a range of psychiatric diagnosis Weissman et al (1977) used a cut off score of 16 to define case status. As expected, the CES-D showed a high sensitivity of 99% for acute primary depression and for depression in patients with alcohol dependence 94% and Schizophrenia 93%. Sensitivity was lower in patients with drug dependence 74%. Specificity was low in patients whose depression had remitted (56%) and those with drug dependence (59%) and somewhat higher in those with alcohol dependence (84%) and schizophrenia (86%) (Yonkers & Sampson 2000).

Breslau N. 1985, Depressive Symptoms, major depression, and generalized anxiety: a comparison of self-reports on CES-D and results from diagnostic interviews. *Psychiatry Research*, 15(3): 219-229.

Coyne JC, Schwenk TL, Smolinski M. 1991, Recognizing depression: a comparison of family physician ratings, self-report, and interview measures. *Journal of the American Board of Family Practice*, 4(4): 207-215.

Orme, J.G. Reis J, Herz E.J. 1986, Factorial and discriminant validity of the Centre for Epidemiological Studies Depression (CES-D) scale. *Journal of Clinical Psychology*, 42(1): 28-33.

Radloff L. 1977 The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychosocial Measurement*, 1: 385-401.

Radloff LS, Locke BZ. 1986, The community mental health assessment survey and the CES-D scale. In: Weissman MM, Myers JK, Ross CE (Ed); *Community Surveys of Psychiatric Disorders*. New Brunswick: Rutgers University Press.

Weissman, M., Sholomskas, D. & Pottenger, M. et al. (1977) Assessing depressive symptoms in five psychiatric populations: a validation study. *Am J Epidemiology* 106: 203-214.

Yonkers, K. A. & Samson, J. (2000) Mood Disorders Measures Chapter 24 In: *Handbook of Psychiatric Measures*. American Psychiatric Association: Washington DC.

MINI- Mini International Neuropsychiatric Interview Version 5.5 (Sheehan, Janavs, Baker, Harnett-Sheehan et al, 1998). (used as an adjunct to the CIDI depression section which does not assess suicide sufficiently)

The Mini International Neuropsychiatric Interview (MINI) is a short structured diagnostic interview based on the DSM-IV and the ICD-10 classification of mental illness to be used in clinical trials and epidemiological studies (Sheehan, Lecrubier, Sheehan, et al., 1998). Investigating 23 disorders (all current, some lifetime), it has good reliability for all diagnosis when compared to the CIDI (above 0.50 for all diagnoses except social phobia and GAD), but takes considerably less time to administer (Sheehan et al, 1998). Sensitivity is above 0.70 for all diagnoses except panic agoraphobia, simple phobia and lifetime bulimia, and specificity is higher than 0.70 for all diagnoses. Inter-rater reliability is also high (kappa values above 0.75) and test-retest reliability is adequate (Sheehan et al, 1998). For the purpose of our study we have chosen to include the Suicide section only. Part 2 of the study requires administration of the CIDI, and hence including the other sections of the MINI would be redundant. The suicide section of the MINI, consists of 6 questions, which are given different weights according to the level of risk associated with that symptom. A score of 0 indicates no risk, a score of 1-5 suggests a low suicide risk, 6-9 Moderate and 10 or greater – high suicide risk.

Sheehan, DV, Lecrubier Y, Harnett Sheehan K, Amorim P, Janavs J, Weiller E, Hergueta T, Baker R, Dunbar, GC. 1998, The Mini-International Neuropsychiatric Interview (M.I.N.I.); the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry*, 59 (suppl 20): 22-33.

Sheehan, D.V. & Lecrubier, Y. (1994) *Mini-International Neuropsychiatric Interview (MINI)* Tampa, FL., University of South Florida, Institute of Research in Psychiatry; Paris, INSERM-Hospital de la Salpetriere.

TDQ- TRAUMATIC DISSOCIATION QUESTIONNAIRE (Murray, Ehlers and Mayou 2002)

The Traumatic Dissociation Questionnaire (TDQ) is a 38-item self-report questionnaire devised from a number of other widely used dissociation questionnaires such as the Dissociative Experiences Scale (DES). It is comprised of seven subscales and a total score: Detachment from others and the world, sense of split self, lability of mood and impulsivity, inattention and memory lapses, emotional numbing, confusion and altered time-sense, amnesia for important life events and total trait dissociation. Internal consistency is high (.93 –Students, .92 MVA victims, and .94-.96 for assault survivors) (Murray, 1997) as is test-retest reliability (.86-students, .82 MVA survivors) (Murray, 1997; Murray et al, 2002; Halligan et al., in press).

Halligan SL, Michael T, Clark DM and Ehlers A (in press). Posttraumatic stress disorder following assault: the role of cognitive processing, trauma memory, and appraisals. *Journal of Consulting and Clinical Psychology*.

Murray J. 1997, The role of dissociation in posttraumatic stress disorder. D.Phil. thesis, University of Oxford, Oxford, UK.

Murray J, Ehlers A and Mayou RA. 2002, Dissociation and posttraumatic stress disorder: Two prospective studies of road traffic accident victims. *British Journal of Psychiatry*, 180, 363-368.

MOPS- MEASURE OF PARENTING STYLE (Parker, Roussos, Hadzi-Pavlovic, Mitchell, Wilhelm and Austin, 1997).

The Measure of Parenting Style Questionnaire (MOPS) was created from a refined version of the Parental Bonding Instrument (PBI: Parker, Tupling and Brown, 1979) together with some additional items relating to parental abuse. It consists of three subscales: Parental Indifference, Parental Over control and Parental Abuse. Internal consistency of the three subscales is high: indifference (0.93 for both maternal and paternal indifference); Over control (0.82-maternal, 0.76-paternal); abuse (0.87- maternal, 0.92-paternal). (Parker et al, 1997) The indifference scale has been shown to correlate highly with the PBI Care scale (-0.76 to -0.79) and the Over control scale correlates highly with the original PBI protection scale, indicating the potential use of the MOPS as a shortened version of the PBI. Unlike the PBI however, the MOPS has the added advantage of incorporating a third dimension to specifically assess parental abuse. The MOPS has been psychometrically tested in depressed and anxious patients (Parker et al, 1997, Parker et al, 1999)

Parker G, Tupling H, Brown LB. 1979, A Parental Bonding Instrument. *British Journal of Medical Psychology*, 52: 1-10.

Parker, G, Roussos J, Hadzi-Pavlovic D, Mitchell P, Wilhelm K, Austin M. 1997, The development of a refined measure of dysfunctional parenting and assessment of its relevance in patients with affective disorders. *Psychological Medicine*, 27: 1193- 1203.

Parker G, Roy K, Wilhelm K, Mitchell P, Austin MP Hadzi-Pavlovic D. 1999, An exploration of the links between early parenting experiences and personality disorder type and personality functioning. *Journal of Personality Disorders*, 13(4): 361-374.

WAS - WORLD ASSUMPTION SCALE (Janoff-Bulman, 1989)

The World Assumptions Scale is a 32 item self-report questionnaire designed for measuring an individual's core belief system about themselves and the world. Especially suitable for use in studies of trauma victims, it assesses three categories of assumptions: Benevolence of the World: the extent to which an individual perceives the world positively or negatively; Meaningfulness of the world: the beliefs people have about how outcomes are distributed in the world; and Worthiness of Self: one's beliefs about oneself. Scoring is based on a 6 point scale ranging from strongly disagree to strongly agree (Janoff-Bulman, 1989).

Janoff-Bulman R. 1989, Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition* 7(2): 113-136.

RLE- RECENT LIFE EVENTS QUESTIONNAIRE (Adapted from Brugha, 1985)

The Recent Life Events questionnaire used in this study is one devised from Brugha (1985) with nine additional items. It is used to measure common life events that have occurred in the individual's life and that may be deemed threatening. Each item is scored 1 if it has happened in the past 12 months, 0 if it has not happened and 2 if the event is still having an impact on the individual's life. The number of events occurring over the last 12 months are then summed to produce a total score. There is no data on internal consistency or norms to date. Test-retest reliability is expected to be low especially over long time periods due to the nature of the questionnaire.

Brugha T, Bebington P, Tennant C and Hurry J. 1985, The list of threatening experiences: A subset of 12 life events categories with considerable long-term contextual threat. *Psychological Medicine*, 15: 189-194.

CHILDHOOD TRAUMA AND HOUSEHOLD EXPERIENCES (FROM ACE STUDY, Felitti et al, 1998) (used as an adjunct to the PTSD section of the CIDI- to allow a detailed assessment of childhood trauma)

This section of the booklet is composed of a subset of questions used in a large scale in California known as the Adverse Childhood Experiences Study (ACE) Study. This study, based at Kaiser Permanente's San Diego Health Appraisal clinic investigated the long-term relationship between childhood experiences and health problems in 9508 adults. Seven main categories of adverse childhood experiences were assessed: psychological, physical abuse, sexual abuse, and household dysfunction due to substance abuse, mental illness, violence towards mother, or criminal behaviour. Participants are defined as exposed to each category if they answer yes to one or more questions in that category (Felitti et al, 1998). Our study utilises the seven categories reported above, together with additional questions relating to childhood neglect, suicide in family, alcohol and drug use within the family, and family structure. A summary score of the total number of categories endorsed will be used in the final analysis.

Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. 1998, Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventative Medicine*, 14(4): 245-258.

IES-R – IMPACT OF EVENTS SCALE (WEISS AND MARMAR, 1995)

The Impact of Events Scale Revised (Weiss and Marmar, 1997) is a 22 item self-report

questionnaire used to examine the psychological response to a traumatic stressor. Devised using the 15 items of the IES with seven additional items to assess hyperarousal symptoms, the IES-R assesses three fundamental types of PTSD symptoms: intrusion, avoidance and hyperarousal. Scoring is based on a 5-point scale ranging from 0-not at all to 5-extremely and all questions refer to the level of distress caused by the event over a seven-day period. Psychometrically tested in emergency service personal and earthquake survivors, the IES-R has been shown to have very high internal consistency for all subscales: Intrusion (.87-.92); Avoidance (.84-.86) and Hyperarousal (.79-.90) (Weiss and Marmar, 1997). Test-retest reliability is also adequate: Intrusion (.57-.94); Avoidance (.51-.89) and Hyperarousal (.59-.92), especially when the event is recent and the time between assessments is short (Weiss and Marmar, 1997). Participants who are willing to answer these questions about their offence and arrest will be asked to complete the questionnaire. The results can be compared to studies done with other local populations such as those in the bushfire study.

This scale was adapted from the impact of events scale developed by Horowitz et al (1979) who found a split half reliability of .86 for the total scale in their sample of clients seeking treatment for the after effects of a traumatic life event. For this sample the internal consistency of the intrusion subscale was .78, and avoidance .82. In a sample of individuals who had lost their parents Zilberg et al (1982) found that the internal consistency of the avoidance subscale was .86 and the avoidance subscale .88. In a sample of physical therapy students Horowitz found a 1 week test-retest reliability of .87 for the total scale score, .89 for the intrusion subscale and .79 for the avoidance subscale (Schutte & Malouff 1995).

Horowitz et al (1979) compared responses of individuals who had sought treatment for the after-effects of a traumatic life event with those of individuals who experienced no major trauma and found that those who sought treatment scored significantly higher on the total scale and on the two subscales. Zilberg et al (1982) found that individuals who sought treatment after the loss of a parent had significantly higher subscale scores than those who did not seek treatment.

Horowitz, M.J., Wilner, N. & Alvarez, W. (1979) Impact of Event Scale: A measure of subjective stress. *Psychosomatic Medicine*: 41;209-218.

Schutte, N. S. & Malouff, J. M (1995) *Sourcebook of Adult Assessment Strategies*. Plenum Press. New York.

Weiss D.S. & Marmar C.R. (1997), *The Impact of Event Scale – Revised*. In J Wilson and TM Keane (Ed.) *Assessing Psychological Trauma and PTSD* (pp 399-411). New York, NY, US: Guilford Press.

Zilberg, N. J., Weiss, D.S., & Horowitz, M.J. (1982) Impact of Event Scale: A cross-validation study and some empirical evidence supporting a conceptual model of stress response syndromes. *Journal of Consulting and Clinical Psychology*: 50; 407-414.

Queen Elizabeth Hospital Study

3 very brief questionnaires have been taken from this study, and should take no more than 15 to 20 minutes to administer.

McFarlane, A., Schrader, G., Bookless, C., & Brown, D. 2004, *The Prevalence of Victimization and Violent Behaviour in the Seriously Mentally Ill*. Adelaide University.

Patients Feelings and Acts of Violence (PFAV) Scale (Plutchik & Van Praag 1990)

This is a 12 item questionnaire that uses a 4 point Likert scale from never to very often, questioning patients on their anger and history of violence e.g. Have you ever hit or attacked someone who is not a member of your family. This and the two following questionnaires: Aggression Questionnaire and the Traumatic Antecedents Questionnaire were used in the 'Prevalence of Victimization, PTSD and Violence Behaviour in the Serious Mentally Ill' study which took place at the Queen Elizabeth Hospital South Australia (McFarlane et al 2004). It provides an opportunity to compare results with another local psychiatric population in relation to traumas experienced.

Plutchik, R. & Van Praag, H. 1990, A self-report measure of violence risk, II. *Comprehensive psychiatry*. 31:450-456

Aggression Questionnaire (Buss & Perry 1992)

A 29 item questionnaire assessing the patient's perspectives on aggression which uses a 5 point Likert scale from Extremely uncharacteristic of me to Extremely characteristic of me. E.g. 'Given enough provocation, I may hit another person'. It was developed by Buss & Perry from the previous Buss-Durkee Hostility Scale (1957). It measures 4 dimensions of aggression: Physical, Verbal, Anger, and Hostility. A factor analysis was completed for the scale on a large group of subjects, and this confirmed the factor structure of the scale, and suggested that a general aggression factor underlies all the items.

In a large study of college students, Buss & Perry found that internal consistency as assessed by Cronbach's alpha was .85 for the physical aggression scale, .72 for the verbal scale, .83 for the anger scale, .77 for the hostility scale and .89 for the total score. In a 9-week test retest the respective scores were: .80, .76, .72, .72, and .80.

In a second study, Buss & Perry asked members of a college fraternity to rate each other on physical and verbal aggression, anger and trust, and also asked them to fill out the aggression questionnaire. They found a significant association between peer ratings and self-reports for each of the subscales and total score, with the highest congruence for physical aggression and the lowest congruence for verbal aggression (Schutte & Malouff 1995).

Buss A.H. & Perry. M., 1992, The Aggression Questionnaire. *Journal of Personality and Social psychology*. 63:452-459

Schutte, N. S. & Malouff, J. M (1995) *Sourcebook of Adult Assessment Strategies*. Plenum Press. New York.

Standard Clinical Tools (use in current practice)

BPRS (Brief Psychiatric Rating Scale)

The BPRS includes 18 items that address somatic concern, anxiety, emotional withdrawal, conceptual disorganisation, guilt feelings, tension, mannerisms and posturing, grandiosity, depressive mood, hostility suspiciousness, hallucinatory behaviours, motor retardation, uncooperativeness, unusual thought content, blunted affect, excitement, and disorientation. It was originally published in 1962 by Overall and Gorham and is one of the most commonly used tools in psychiatric research and clinical evaluation over the last 30 years.

Numerous studies have compared BPRS results with results from other scales and the reported validity is generally high (Hedlund and Vieweg 1980). The Pearson correlations for the total pathology score were 0.80 or greater for 10 out of 13 studies. The median reported Pearson correlation for individual items ranged from 0.63-0.83 in 5 studies. In a Danish study of the psychometric properties of the BPRS, the investigators described needing more than 30 joint rating sessions to achieve consistently reliable coring among seven psychiatrists (ICC > 0.80). In an effort to achieve acceptable joint reliability many studies have developed detailed anchor descriptors. For example, an inpatient treatment unit for patients with functional psychosis was able to achieve good joint reliability by nursing staff using a version of the BPRS with detailed anchor descriptors. Staff training was minimal and consisted of an overview of the instrument and routine joint ratings of patients. The weighted kappa coefficient ranged from 0.52 to 0.90 for individual items; the mean value for all items was 0.72. The simplest definition of positive symptoms and negative symptoms has demonstrated good internal consistency (Cronbach's alpha of 0.81 and 0.91 respectively).

In a comparison with the PANSS (Positive and Negative Syndrome Scale) and the BPRS, Bell et al (1992) found that the positive and negative scales of both tools were highly correlated ($r = 0.92$ and 0.82 respectively) and total scores correlated ($r = 0.84$). The general scale scores were only moderately correlated ($r = 0.61$). Three items on the BPRS were in excellent agreement ($\kappa > 0.75$) for hallucinatory behaviours, grandiosity and blunted affect, and eight other items had good agreement ($\kappa 0.60 - 0.74$) for unusual thought content, conceptual disorganisation, suspiciousness, somatic concerns, guilt feelings, depressive moods, motor retardation and disorientation. The remaining items scored only fair to poor ($\kappa < 0.60$).

Bell, M. et al (1992) The Positive and Negative Syndrome Scale and the Brief Psychiatric Rating Scale: reliability, comparability, and predictive validity. *J Nervous Ment Dis*: 180; 723-728.

Hedlund, J. L. & Vieweg, B. W. (1980) The Brief Psychiatric Rating Scale (BPRS): A comprehensive review. *Journal of Operational Psychiatry* 11:48-65.

Leucht, S., Kane, J.M., Kissling, W. et al. 2005, Clinical Implications of Brief Psychiatric Rating Scale Scores. *British Journal of Psychiatry*, 187: 366-377.

Overall, J.E & Gorham, D.R. 1962, The Brief Psychiatric Rating Scale. *Psychological Reports*. 10: 790-812.

Perkins, D. O. et al. (2000) Psychotic Disorder Measures Chapter 23 (p490-494) In: *Handbook of Psychiatric Measures*. American Psychiatric Association: Washington DC.

DASA Average DASA (Dynamic Appraisal of Situational Aggression) (Ogloff & Daffern 2003)

This tool is an efficient method of assessing a patient's day to day level of aggression. The scoring is based on the Broset Violence Checklist and is used to assess the patient over the previous 24 hours, examining items like Irritability, impulsivity, and unwillingness to follow direction. All well-known precursors to aggression. It is an all or nothing score of 0 or 1 and as there are only 7 items, it has a total potential range from 0-7. A score of 3 or more means the patient is high risk resulting in a need for action to avoid such risk (Daffern et al 2005). There is no current evidence for its reliability and validity; however it is currently being trialled in the forensic mental health service to benchmark measurements between the forensic service in Victoria and SA.

Daffern, M., Ogloff, J.R., Ferguson, M., & Thomson, L. 2005, Assessing Risk for Aggression in a Forensic Psychiatric Hospital Using the Level of Service Inventory-Revised: Screening Version. *International Journal of Forensic Mental Health* 4:2: 201-206

Ogloff, J. R. P., & Daffern, M. 2003, The assessment of inpatient aggression at the Thomas Embling Hospital: Toward the Dynamic Appraisal of Inpatient Aggression. *Forensicare, Victorian Institute of Forensic Mental Health Fourth Annual Research Report to Council*, 1 July 2002-30 June 2003

CR62 hospital based risk assessment (Scarborough 2005)

This is a local hospital based risk assessment tool that examines 3 specific risks for every patient that is admitted including Aggression to Self (Suicidality), Aggression to Others and Risk of Absconding. The score ranges from 0 = none to 4 = Extreme. There are open sections to identify unique risks. An additional assessment includes aspects of Level of Functioning; Level of Supports Available; History of Response to Treatment, and Attitude to Engagement. No reliability and validity studies have been completed.

GAF (Global Assessment of Functioning)

The primary goal of the GAF scale is to provide a summary score of the patients overall level functioning (Psychological, social, and occupational functioning). The GAF is a derivative of the Global Assessment Scale – GAS and It forms AXIS V of the DSM (Diagnostic Statistical Manual) multi axial system (APA 1994). It has a list of descriptors against a score range, each describing a level of functioning.

Joint reliability (Interclass correlation coefficients ICC's) on the Global Assessment Scale - GAS and GAF Scale across several studies (nine different sample subjects n = 16-451) ranged from 0.61 – 0.91 (indicating fair to excellent agreement). Values from joint interviews ranged higher than from the test-retest independent interviews as expected. Reliability was equivalent for patients and for non-patients (community subjects who were not currently in treatment). The Gas has been used in hundreds of studies to select or describe subject samples. The concurrent validity was evaluated by comparing therapists ratings of the severity of illness using a simple 7-point scale that ranges from 'not ill at all' to 'amongst the most extremely ill' with GAS ratings made by research interviewers in a study of psychiatric inpatients. On admission, the correlation was 0.44; however 6 months after admission, the correlation increased to 0.62. The GAF scale discriminated significantly between patients who had a personality disorder (mean GAF score of 70) and those who did not (mean GAF score of 80) in a study of community who were not in treatment (First et al 1995). The main strength of this tool is its ease of use with minimal training, particularly to monitor change over time. The construct validity of the GAF Scale may be increased by separately rating psychological and social /occupational functioning (Patterson & Lee 1995).

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition. Washington DC. APA.

First, M. B (1996) *Multi Health Systems Staff: GAF Report for the Global Assessment of Functioning Scale (Computer Program, Windows Version)* Toronto, Canada. Multi-Health Systems.

Frances, A., Pincus, H.A., First, M.B. 1994 *The Global Assessment of Functioning Scale (GAF)*. *Diagnostic and Statistical Manual of Mental Disorder – IV – TR* (page 23). American Psychiatric Association, Washington DC.

Jones, S.H, Thornicroft, G., Coffey, M. & Dunn,G. 1995 A Brief Mental Health Outcome Scale: Reliability and Validity of the Global Assessment of Functioning (GAF). *British Journal of Psychiatry* 166: 654-659

Patterson, D. & Lee, M. (1995) Field Trial of the Global Assessment of Functioning Scale – Modified. *Am. J. Psychiatry*: 152; 1386-1388.

Sections Eliminated from the Study:

Traumatic Antecedents Questionnaire (TAQ) (Herman et al 1989) –

The Traumatic Antecedents Questionnaire (TAQ) is a 42 item structured instrument to assess experiences from childhood through to adulthood in the range of: early childhood (0-6), childhood (7-12), adolescence (13-18) or adulthood. Many of our forensic clients have had varying supports throughout their childhood and adulthood. This will aid in the assessment of family relationships, support level, and experiences during these eras.

Herman J.L., Perry .J. & van der Kolk B.A. 1989 Childhood trauma in borderline personality disorder. *American Journal of Psychiatry*. 146:490-495.

PANSS (Positive and Negative Syndrome Scale)

The PANSS includes 3 scales and 30 items; the positive scale, negative scale and general psychopathology. It takes around 30-40 minutes to administer. Numerous investigators have been able to establish good to excellent joint reliability with the PANSS, interclass correlation coefficients (ICC) above 0.80 for the Positive, Negative and General Psychopathology scales are readily obtainable (Kay 1990). Good internal consistency of the 3 scales has been demonstrated in several studies (Kay 1994). For example in a study of 101 patients with chronic, stable, severe schizophrenia, internal consistency as measured by Cronbach's alpha was 0.73 for the Positive scale, 0.83 for the Negative scale and 0.87 for the General Psychopathology.

In one study, concurrent ratings of 51 patients with schizophrenia showed high correlation between PANSS Positive subscale and the Scale for the Assessment of Positive Symptoms - SAPS (0.70) and between the PANSS negative subscale and the Scale for the Assessment for Negative Symptoms - SANS (0.77) and also comparison of the General Psychopathology subscale and the Clinical Global Impression Scale (CGI) was 0.52).

Bell, M., Milstein, R. Beam-Goulet, J. et al. 1992, The Positive and Negative Symptom Scale and the Brief Psychiatric Rating Scale: Reliability, comparability, and predictive validity. *Journal of Nervous and Mental Disease*. 180: 723-728

Kay, S. R. et al (1987) Reliability and Validity of the Positive and Negative Syndrome for schizophrenics. *Psychiatric Res*: 23: 99-110

Kay, S. R. (1994) A Positive and Negative Syndrome Scale Manual. North Tonawanda. NY. Multi-health Systems.

Peralta, V. & Cuesta, M.J. 1994, Psychometric Properties of the Positive and Negative Symptom Scale (PANSS) in Schizophrenia. *Psychiatry Research*. 53: 31-40

Perkins, D. O. et al. (2000) Psychotic Disorder Measures Chapter 23 (p494-497) In: Handbook of Psychiatric Measures. American Psychiatric Association: Washington DC.

DASS (Depression and Anxiety Symptom Scale) (Lovibond & Lovibond 1995)

The DASS is another commonly used clinical tool in the assessment of depression and anxiety. It is a 42 item questionnaire that asks the patient to review a list of statements that says how they might have felt over the last week. The patient then indicates on a scale of 0 did not apply to me at all, to 3 applied to me very much or most of the time. Reliability of the three scales is considered adequate and test-retest reliability is likewise considered adequate with .71 for depression, .79 for anxiety and .81 for stress (Brown et al., 1997). The DASS is used within the forensic mental health service to monitor ongoing clinical improvement.

Lovibond, S.H. & Lovibond, P.F. (1995). Manual for the Depression Anxiety Stress Scales (2nd. Ed.). Sydney: Psychology Foundation.

Lovibond, P.F., and Lovibond, S.H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour Research and Therapy, 33, 335-343.

Brown, T.A., Chorpita, B.F., Korotitsch, W., & Barlow, D.H. (1997). Psychometric properties of the Depression Anxiety Stress Scales (DASS) in clinical samples. Behaviour Research and Therapy, 35, 79-89

APPENDIX C

CONSENT FORMS AND INFORMATION SHEETS

c. Consent Forms & Information Sheets

ROYAL ADELAIDE HOSPITAL

CONSENT FORM

PROTOCOL NAME: **Post-Traumatic Stress and Forensic Mental Health**

INVESTIGATORS: Michael Musker Clinical Nurse Consultant

1. The nature and purpose of the research project has been explained to me. I understand it, and agree to take part.
2. I understand that I may not directly benefit from taking part in the trial.
3. I understand that, while information gained during the study may be published, I will not be identified and my personal results will remain confidential.
4. I understand that I can withdraw from the study at any stage and that this will not affect my medical care, now or in the future.
5. I give permission for access to my personal records to review things that have happened to me in the past and my current treatment. This includes records from my childhood e.g. GP and family services and other health services.
6. I have had the opportunity to discuss taking part in this investigation with my primary nurse or a friend.

Name of Subject:

Signed:

Dated:

I certify that I have explained the study to the patient/volunteer and consider that he/she understands what is involved.

Signed: _____

Dated: _____

(Investigator)

I support this patient being involved in this research:

Signed: _____

Dated: _____

(Primary Nurse)

Signed: _____

Dated: _____

(Consultant Psychiatrist)

INFORMATION SHEETS for RESEARCH SUBJECTS

Study of Post-Traumatic Stress and Forensic Mental Health

General Information:

This is a study of the types of traumas that may have been experienced by patients within the forensic mental health service. It will involve a number of interviews using a set of questionnaires. These questionnaires have been used in many other research studies and a list of them has been provided at the end of this information sheet. For some individuals talking about their past and traumatic experiences can be difficult, and the facilitator will offer you ways of seeking help if you feel uncomfortable at any time.

Advice:

(i) **"This is a research project and you do not have to be involved. If you do not wish to participate, your medical care will not be affected in any way."**

(ii) Chairman statement and number.

"If you wish to speak to someone not directly involved in the study about your rights as a volunteer, or about the conduct of the study, you may also contact the Chairman, Research Ethics Committee, Royal Adelaide Hospital on 8222 4139."

Purpose of the Study:

By studying what traumas people experience within the forensic mental health field, it is hoped that treatment and prevention strategies can be developed to meet important identified needs. It is common for people who have experienced mental illness to have endured other difficulties in their life. This study will give you an opportunity to look at some of these difficulties in detail. **The information you give will not be identified with your name and will be kept confidential – only a number will be listed against the details you give.** No record of the information you give will be put in your notes, unless you specifically request for this to happen. The overall objective is to get an overview of the types of illnesses and experiences you have had before arriving within the forensic mental health service. For many people this will be a complex picture and by comparing your life with others will help our service better understand what has happened to you and others like you.

Benefits of the Study:

The data that is produced from all of the answers you give will be compared with the national population and other important studies that have examined post-traumatic stress. This will enable the researcher to see if what is happening to people in the forensic mental health population is different to what is happening to others. It will help us provide patients with the right types of treatment and support.

Risks of the Study:

It is hoped that the questions in this study will actually reduce anxiety in relation to past experiences, but for some, talking about painful memories can create distress. Such distress may make your worries worse. You may also be reminded of experiences that you have tried to forget. If you find this happening to you and you find it too distressing, you can stop your participation at any time. If you feel you need more help because you have discussed some past experiences that have upset you, assistance can be given in seeking this help. Please ask the interviewer for help if required with anything that bothers you from the research – you may want to speak to your nurse about some of the issues, or another member of the care team.

Procedures:

- Your Doctor and primary nurse will be asked if you are well enough to participate in this study.
- You will be given this information sheet about the study to read and then given some time to consider whether you are interested in participating or not as part of a brief discussion prior to participation.
- You will be asked if you want to participate in the study.
- If you agree to the study, a series of interviews will be set up with you. If you feel you want a break at any time, you can ask for the interview to be rescheduled.
- You will be asked if you are willing to have the interview recorded using a digital audio recorder. This is not compulsory and you can request that it is not recorded. The idea of the recording is to allow another researcher (who **will not** be given your name – only a number) to check that the interviews are being performed correctly and to check whether the questionnaire information is gathered correctly.
- You will not be treated differently because of your participation. You may ask the researcher to give some information to your primary nurse or doctor; otherwise you should expect that no information will be given to them.
- The researcher will work through a number of paper and pencil questionnaires with you across a series of interviews. One of these interviews will involve using a laptop because the questionnaire is computerised. All the information you give will be stored securely and kept safe.
- A follow up interview will be arranged to see if you have any residual issues that are bothering you, and if you require some support in dealing with them.

Total Participation Time:

There are three main sections to this study, each taking between 1 hour and 1.5 hours (maximum 4 and half hours). This will be split into smaller sections depending on how comfortable you feel and what plans you have in your day. For example, you may prefer to do the questionnaires in half hour sessions or even less. You may want to bring refreshments into the interview and you can ask for a break at any time. The interviews will be held over a number of weeks, so that the interviews are spread out and the use of your time will have less impact on your day-to-day routines. Some of the questionnaires listed below are completed as part of your normal clinical care and have not been included in the total participation time.

Accessing Records:

To find out more about the information you have given, it will be necessary to review your personal records. This includes records from your childhood and adult life including social care, and health records. This will be to review some of your experiences and the information will be confidential to this research project and the information **will not** be shared with current members of your clinical team.

Thanks:

Thank you for taking time to read this information sheet and I look forward to working with you as part of this research project.

Notes:

APPENDIX D

DEMOGRAPHICS OF SA FORENSIC MENTAL HEALTH

d. Demographics of the SA Forensic Mental Health Service

(Produced by the author as a member of the National Benchmarking Group AMHOCN – Australian Mental Health Outcomes Case Mix Collection) and as a member of the

Forensic National Mental Health Information Development Expert Advisory Panel (FMHIDEAP).

http://amhocn.org/static/files/assets/a9d0775d/FMHIDEAP_Membership_010610.pdf

1. SOCIO-DEMOGRAPHICS

Population

TOTAL POPULATION OF SA

1 606 747 (ABS report 3101.0 - sep 2008 page 16) 7.5% Australian population

(<http://www.abs.gov.au/ausstats/abs@.nsf/mf/3101.0>)

Population increases about 10,000 per annum over last 5yrs.

Geographic area of coverage:

We provide a state wide service:

South Australia covers some of the most arid parts of the continent, and is the fourth-largest of Australia's States and Territories, spreading across 983 482 km². It is bordered to the north by the Northern Territory, to the east by Queensland, New South Wales and Victoria, to the west by Western Australia and along the south by the Great Australian Bight and the Southern Ocean. South Australia's coastline length is 5067 km, while its border length is 3185 km.

(Taken from: http://www.skwirk.com.au/p-c_s-16_u-307_t-751_c-2815/geographical-dimensions-size-and-shape/nsw/geographical-dimensions-size-and-shape/australia-s-physical-environment/the-australian-continent)

Rural population:

1. Metropolitan area: 1 157 961 (ABS – report 3101.0 - sep 2008 page 17)
2. Regional area, and Rural and remote areas:

Population by Region taken from 2006 stats

Regions

	Age 0-17	Age 18-64	Age 65>	Total
Country	105,254	255,162	67,010	427,426
Eastern	43,173	143,259	36,880	223,312
Western	39,897	127,573	37,772	205,242
Inner				
Southern	34,534	107,622	31,690	173,846
Southern	36,906	94,757	18,076	149,739
All				
Southern	71,440	202,379	49,766	323,585
North East	40,945	115,724	24,533	181,202
Northern	41,208	95,186	17,182	153,576
All				
Northern	82,153	210,910	41,715	334,778
			Total	1,514,343

Culturally and Linguistically Diverse population as percentages of SA population

Distribution of speakers of leading five languages and Indigenous languages by State or Territory (ABS report 4102.0 Social Trends - 1999 page 14)

Italian	12
Greek	10
Cantonese(b)	3.3
Arabic	2.1
Vietnamese	7.6
Indigenous languages/creoles	4.6
All languages other than English	6.6

All other languages, other than English, as a proportion of the state= 12.6 % (ibid)

National Average is 15%

Australian Indigenous peoples

TOTAL Australian INDIGENOUS Peoples OF SA 28 055

(ABS report 3101.0 - sep 2008 page 24)

PRISON POPULATION:

TOTAL PRISONERS IN THE STATE 1855

Males = 1727 Females = 128

TOTAL PER 100000 POPULATION: 155.9

Locally collected data from Department for Correctional Services SA

Daily Average Prisoners between 01 Jul 2007 and 30 Jun 2008

Aboriginal

	FINE	REMD	SENT	UNKN	Total
Female	0.04	15.33	14.21	0.48	30.06
Male	0.02	155.52	222.13	1.18	378.85
Sum:	0.06	170.85	236.34	1.66	408.91

Non-Aboriginal

	FINE	REMD	SENT	UNKN	Total
Female	0	41.91	53.32	1.32	96.55
Male	0.16	412.40	930.24	2.09	1344.89
Sum:	0.16	454.31	983.56	3.41	1441.44

Unknown

	REMD	SENT	UNKN	Total
Female	0.96	0	0.04	1.00
Male	2.05	1.61	0.05	3.71
Sum:	3.01	1.61	0.09	4.71

Forensic Mental Health Service - Prisoner population as inpatients as daily averages over 2007-08

Remainder average = Forensic Patients

(Total in service = 40 i.e. prisoners and FPs) Some patients have dual status.

		Female					Male					
		FINE	REMD	SENT	UNKN	Total	FINE	REMD	SENT	UNKN	Total	Total
JNH	Aboriginal	0	0.27	0	0	0.27	0	2.46	0.14	0	2.60	2.87
	Non-Aboriginal	0	2.41	0	0	2.41	0	8.97	1.34	0	10.31	12.72
	Unknown	0	0.09	0	0	0.09	0	0.14	0	0	0.14	0.23
JNH		0	2.77	0	0	2.77	0	11.57	1.48	0	13.05	15.82

Statistics from ABS 2008 for South Australia (Prisoner in Australia ABS doc 4517.0)

All prisoners	1 942
Males	1 809
Females	133
Indigenous	401
Non-Indigenous	1 529
Unknown	12
Sentenced	1 292
Unsentenced	650
Prior imprisonment(c)	1 060
No prior imprisonment(c)	882

Percentages

Males	93.2
Females	6.8
Indigenous	20.6
Non-Indigenous	78.7
Unknown	0.6
Sentenced	66.5
Unsentenced	33.5
Prior imprisonment(c)	54.6
No prior imprisonment(c)	45.4
All prisoners	100.0

2. BEDS & ACTIVITY

Unit	Unit Function	Bed Capacity	
ALDGATE WARD	ACUTE ADMISSION WARD	8 BED	
BIRDWOOD	SUB-ACUTE	14 BEDS	
CLARE GROVE	REHABILITATION REHABILITATION	8 BEDS 10 BEDS	Grove Ward is sited in the local psychiatric hospital
		TOTAL 40 BEDS	30 beds are at James Nash House

3. STAFFING PROFILE

Percentage of clinical staff within different disciplines by sub-group, including breakdown of age and gender if possible.

Inpatient Team (some staff work across both services inpatient / outpatient)

A more detailed table with ages is attached as an excel document as the table is too large to fit into Microsoft word. Attached table (excel) has age / gender by discipline.

ALL STAFF				
Staff Category	F	M	Total	% Split
Nursing	23.15	33.68	56.83	76.6%
Medical	1.00	7.00	8.00	10.8%
Operational	2.00	1.00	3.00	4.0%
Peer Specialist	0.00	0.50	0.50	0.7%
Psychology	1.00	1.00	2.00	2.7%
Social Work	3.50	0.00	3.50	4.7%
Occupational Therapy	0.37	0.00	0.37	0.5%
Total Employees	31.02	43.18	74.20	100%

Community Team

ALL STAFF				
Staff Category	F	M	Total	% Split
Nursing	4.64	3.00	7.64	66.8%
Medical	0.00	0.50	0.50	4.4%
Operational	0.00	0.00	0.00	0.0%
Peer Specialist	0.00	0.00	0.00	0.0%
Psychology	0.00	0.80	0.80	7.0%
Social Work	2.50	0.00	2.50	21.9%
Occupational Therapy	0.00	0.00	0.00	0.0%
Total Employees	7.14	4.30	11.44	100%

4. CHARACTERISTICS & PROCESSES

Identify organisations with which a Memorandum of Understanding is held (e.g. Police, Corrections).

Department of Health SA & SA Ambulance Service; Royal Flying Doctor Service South; Australia Police (all one document).
Department for Correctional Services

Paid consumer consultants

0.5. FTE

Paid carer consultants

0. FTE

Sessional consumer and carer consultants

0. FTE

However we do have unpaid volunteers (education / occupational therapy / support)

Documented intake criteria

a. Inpatient Unit

(Adapted from our local Service Model)

Eligibility and Priority of Access

The Forensic Mental Health Service is a limited state-wide resource and therefore detailed Operational Protocols are required to ensure transparent decision making and appropriate targeting of limited resources. The following criteria are required to demonstrate eligibility:

- Patients involved in the legal process under Part 8A of the Criminal Law Consolidation Act, Mental Impairment Provisions (1995)
- Prisoners detained under the Mental Health Act whilst in a correctional facility and who require assessment, treatment and rehabilitation in a high security forensic mental health inpatient treatment environment that cannot be provided in other facilities

b. Community

In addition to the having been an inpatient within the forensic service as stated above: Patients residing in the community with an extensive forensic history, and those under non-custodial orders who require specialist risk.

Where possible patients are linked to a community team at the earliest opportunity. The case management of patients would then be handed over to the relevant community team.

Additional Information (taken from The South Australian Forensic Service Model):

Legislative Context

Within South Australia the ***Mental Health Act (1993)*** provides for the involuntary assessment, treatment and protection of people who have a mental disorder, while at the same time safeguarding their rights. This Act applies regardless of whether the person resides in the community or is in custody.

The Mental Health Act (1993) also facilitates the transportation and admission of a person to a hospital, when it is determined that inpatient assessment and treatment is required.

The ***Criminal Law Consolidation Act (CLCA) Mental Impairment Provisions (1995)*** provides the mechanism to temporarily remove matters from the court

system, to allow treatment to occur, and matters of criminal responsibility and fitness for trial to be determined. The legislation ensures that appropriate arrangements are made for the compulsory treatment and review of offenders found not criminally responsible, or unfit to stand trial. It allows for the appropriate return of matters to the justice system when it is determined that the person no longer requires mental health treatment and that prosecution should be continued.

Partnership Model

The Forensic Mental Health Service is one component of the South Australian Mental Health system and therefore requires partnerships (formal and informal) with that system to ensure that services are integrated and that mentally disordered offenders and forensic patients (under Part 8A CLCA) are linked into other parts of the system as appropriate to their clinical, rehabilitation and security needs.

A key partnership exists with the South Australian Prison Health Service (Department of Health) whose role is to provide a primary health care service to prisoners and those on remand. The Prison Health Service is responsible for the initial screening of all newly admitted prisoners and those on remand. Prison Health Services are located within custodial settings and staff work in collaboration with staff from the Department of Correctional services to identify and refer mentally disordered offenders who may require specialist mental health assessment.

Is there a waiting list?

Yes: We have 2 sections those that are awaiting a bed as patients within the Department for Corrections (local reference DCS) and those who are forensic patients (local reference FP's). Some clients are both DCS & FP status. Any patient who is detained within prison must be taken to an approved hospital (as designated in the mental health act) immediately. There are no mental health units within the prison system of South Australia.

5. PATIENT PROFILES

Diagnosis profiles: Top 5 diagnoses as percentage of clients (Top 4 plus 'other')

Diagnosis Profiles		
Principal Diagnosis	Client Count	Percentage
Schizophrenia unspecified	10	25.00
Paranoid schizophrenia	9	22.50
Not Recorded	5	12.50
Schizoaffective disorder unspecified	3	7.50
Sev depres ep w psych sym not postnatal	2	5.00
Undifferentiated schizophrenia	2	5.00
Other schizoaffective disorders	2	5.00
Delusional disorder	2	5.00
Sev depres ep wo psych sym not postnatal	1	2.50
Other schizophrenia	1	2.50
Hebephrenic schizophrenia	1	2.50
Residual schizophrenia	1	2.50
Bipolar affective disorder unspecified	1	2.50
Total	40	100

Index offence (most serious) = **Homicide**

Number of patients by legal status / classification.

Legal Status	
OrderType	Client Count
Forensic Patient Order	26
1st 21 Day Detention	6
Voluntary	2
2nd 21 Day Detention	2
Community Treatment.	2
Continued Detention	1
3 Day Detention	1
Total	40

Gender breakdown

Gender Breakdown	
Gender	Client Count
Male	34
Female	6
Total	40

Indigenous population as a percentage of number of patients.

Indigenous Breakdown		
Race	Client Count	Percentage
Aboriginal but not Torres Strait Islander	7	17.5
Other	33	82.5
Total	40	100

What outcome measurement tools are utilised?

LSP 16, HONOS, K10 (A number of KPI's are collected as a wider organisation)

6. OTHER

Does this service provide prison-based services?

A key partnership exists with the South Australian Prison Health Service (Department of Health) whose role is to provide a primary health care service to prisoners and those on remand. The Prison Health Service is responsible for the initial screening of all newly admitted prisoners and those on remand. Prison Health Services are located within custodial settings and staff work in collaboration with staff from the Department of Correctional services to identify and refer mentally disordered offenders who may require specialist mental health assessment.

The FMHS and FCT provide:

- Prison in-reach is provided by Forensic Consultant Psychiatrists and registrars to all prisons within South Australia
- Prison in-reach (limited) is also provided by the Community Forensic Mental Health Team with the aim of supporting the Department for Correctional Services (DCS) in the management of offenders with mental disorder. Members of the team visit offenders and assist DCS staff in the development of management plans which document early warning signs, behavioural indicators of relapse and management strategies
- A State-wide telephone advice service is available to staff of the Department for Correctional Services

Does this service provide court advisory services?

- Attendance in court, in order to provide expert mental health advice to the judiciary/courts
- Mental Health Assessment for people referred by the Courts who appear to have a mental illness and are awaiting sentencing
- Referral and liaison with other services to assist in ensuring that the person is linked into appropriate services

7. ADDITIONAL SERVICE PROFILE INFORMATION - For period 2007 – 2008

DATA is collected through our CBIS system:

a. *Prison ambulatory services*

Number of Consumers who received one treatment day only = 906

Number of Consumers who received > 1 treatment day = 643

Number of treatment days provided in the period = 2553

b. *Community forensic services (i.e. direct case management)*

Number of Consumers who received one treatment day only = 52

Number of Consumers who received > 1 treatment day = 184

Number of treatment days provided in the period = 1581

c. *Court Liaison*

No data available

d. *Consultation liaison*

No data available

(SOTAP excluded - A Sexual Offender Treatment Programme - SOTAP is provided by a separate service – so no data is included about this service).

APPENDIX E

PREVIOUS PUBLICATIONS BY THE AUTHOR

e. Previous Publications by Most Recent:

Musker, M (2013) Chapter: Mike Story: Facilitating Empowerment In: Nizette, D et al. Stories Mental Health, Reflection Inquiry Action In: Mosby Elsevier, Sydney.

Musker, M (2008) Chapter: Leading, Motivating and Enthusing In: Crowther et al, Nurse Managers, A guide to Practice 2nd Ed. Ausmed Publications, Melbourne.

Musker, M (2007) Chapter 6: Living with Learning Disability In: Mcallister, M. Solution Focused Nursing, Rethinking Practice. Palgrave Macmillan.

Musker, M, Jordan, Z. & Rowan, N (2005) Forensic Mental Health: Solving the human puzzle. Pacesetters Magazine Dec. Vol 2: No. 4: Joanna Briggs Institute.

Musker, M (2004) Chapter: Leading, Motivating and Enthusing In: Crowther et al, Nurse Managers, A guide to Practice. Ausmed Publications, Melbourne.

Musker, M (2002) A South Australian Experience Forensic Mental Health Newsletter, Forensicare, June, Vol. 6, Issue 2.

Musker, M. (2001) Mental illness. Chapter 14 in Dale, C., Thompson, T. & Woods, P. (eds) Forensic Mental Health Issues in Practice. Bailliere Tindall, London.

Musker, M. (2001) Learning disability. Chapter 15 in Dale, C., Thompson, T. & Woods, P. (eds) Forensic Mental Health Issues in Practice. Bailliere Tindall, London.

Musker, M. (2000) Social skills training. Chapter 18 in Thompson, T. & Mathias, P. (eds) Lyttle's Mental Health & Disorder 3rd Ed. Bailliere Tindall, London.

Musker, M. (2000) Aggression management. Chapter 24 in Thompson, T. & Mathias, P. (eds) Lyttle's Mental Health & Disorder 3rd Ed. Bailliere Tindall, London.

Musker, M. (1998) Standards & learning disabilities. Chapter 11 in Thompson, T. & Mathias, P. (eds) The Care Programme Approach. Bailliere Tindall, London.

Musker, M. (1997) Demystifying the Internet: a guide for nurses. Nursing Standard, Dec 3rd, Vol.12 No.11, pp.44-47.

Musker, M. (1997) Exercising Holism Toward Positive Mental Health. Positive Mental Health and its Promotion. Liverpool John Moores University.

Musker, M. & Byrne, M. (1997) Applying empowerment in mental health practice. Nursing Standard, April 23rd, Vol.11 No.31, pp45-47.

Musker, M. (1992) Making contact. Nursing Times, Nov 18th, Vol.88, No. 47, pp.31-33.

Book Reviews (Mental Health Nursing):

Musker, M. (1999) Book review: Gudjonsson, GH. & Haward, L.R.C. (1998) *Forensic Psychology: A guide to practice*, Routledge. London. Mental Health Nursing Vol. 19, No. 1.

Musker, M. (1999) Book review: Fernando,S., Ndegwa,D., & Wilson,M. (1998) *Forensic Psychiatry, Race and Culture* London. Routledge. Mental Health Nursing Vol. 19, No. 3.

Musker, M. (1998) Book review: Brown, V.A. (1998) *Psychiatric Assessment: Pre and Post Admission Assessment – Focus 8* London. Jessica Kingsley Publishers. Mental Health Nursing

Notes:

f. **Ethics Approval Letter from RAH Ethics Committee**

APPENDIX F & G

ETHICS APPROVAL LETTERS & QUESTIONNAIRES

(SEE LIST ON PAGE 60)

g. **Copies of Questionnaires**



Government of South Australia

Central Northern Adelaide
Health Service

**ROYAL ADELAIDE
HOSPITAL**

North Terrace,
Adelaide, SA 5000

Tel: +61 8 8222 4000

Fax: +61 8 8222 5939

ABN 80 230 154 545

www.rah.sa.gov.au

Research Ethics Committee

Level 3, Hanson Institute

Tel: (08) 8222 4139

Fax: (08) 8222 3035

Email:

hodea@mail.rah.sa.gov.au

MJJ/hod


20 October 2006

Mr Mike Musker
Clinical Nurse Consultant
Forensic Mental Health Service
PO Box 94
GREENACRES SA 5086

Dear Mr Musker,

Re: "Post Traumatic Stress and related Disorders in Forensic Mental Health."

The above protocol was considered by the Research Ethics Committee at its meeting on the 19th October 2006. The Committee may approve this protocol if you can provide a satisfactory response.

1. It should be assured that all participants have an adequate reading age. Please comment 
2. The Information Sheet should have a separate RISKS sections which lists the risks. include possible deterioration in mental state, etc.
3. There are many questionnaires / tests. The information sheet should state how ¹ this study will require.
4. Given this large number of questionnaires / tests, please provide comment on whether and whether each has adequate validity and reliability. For example, in CES-D, only will be used. Wouldn't this diminish the validity of this tool?
5. Will there be a debriefing interview at the conclusion of someone's participation? Please comment on this.
6. Delete statement re pregnancy from the consent form. This is not relevant.

Please forward your response to Heather O'Dea, Executive Officer, Research Ethics Committee.

Yours sincerely,

Dr M James
CHAIRMAN
RESEARCH ETHICS COMMITTEE



Government of South Australia

Central Northern Adelaide
Health Service

**ROYAL ADELAIDE
HOSPITAL**

North Terrace,
Adelaide, SA 5000
Tel: +61 8 8222 4000
Fax: +61 8 8222 5939
ABN 80 230 154 545
www.rah.sa.gov.au

Research Ethics Committee

Level 3, Hanson Institute
Tel: (08) 8222 4139
Fax: (08) 8222 3035
Email:
hodea@mail.rah.sa.gov.au

12 January 2007

**Mr Mike Musker
Clinical Nurse Consultant
Forensic Mental Health Service
PO Box 94
GREENACRES SA 5086**

Dear Mr Musker,

**Re: "Post Traumatic Stress and related Disorders in Forensic Mental Health."
Participant Information Sheet & Consent Form, (14 December 2006).
RAH PROTOCOL NO: 061026.**

I am pleased to advise that Research Ethics Committee approval has been given to the above project. Please quote the RAH Protocol Number allocated to your study on all future correspondence.

Research Ethics Committee deliberations are guided by the NHMRC National Statement on Ethical Conduct in Research Involving Humans.

The general conditions of approval follow:

- Adequate record-keeping is important. If the project involves signed consent, you should retain the completed consent forms which relate to this project and a list of all those participating in the project, to enable contact with them in the future if necessary. The duration of record retention for all research data is 15 years.
- You must notify the Research Ethics Committee of any events which might warrant review of the approval or which warrant new information being presented to research participants, including:
 - (a) serious or unexpected adverse events which warrant protocol change or notification to research participants,
 - (b) changes to the protocol,
 - (c) premature termination of the study,
 - (d) completion of the study with a study completion summary.
- The Committee must be notified within 72 hours of any serious adverse event occurring at this site.
- Approval is ongoing, subject to satisfactory annual review.

Yours sincerely,

**Dr M James
CHAIRMAN
RESEARCH ETHICS COMMITTEE**

Checklist for research:

ID number:

Actions	Tick as completed	Comments
Issue ID number to patient – record on questionnaires		
Date commenced?		/ /
Check with care team if it is suitable to approach patient		
Check with primary nurse		
Brief patient on project and leave with information sheet and copy of consent form		
Reapproach patient and ask if willing to participate and ask them to sign consent form		
Ask Consultant to sign consent form		
Ask primary nurse to sign consent form		
Tool: questionnaires – pencils x2; watch; audio recorder; lists for CIDI and CAPS		
Questionnaire checklist:		
ICSAH booklet		
CAPS (Clinician Administered PTSD scale)		
CIDI (Composite International Diagnostic Interview)		
Patients Feelings and Acts of Violence (PFAV) Scale		
PCL (Civilian PTSD checklist)		
Aggression Questionnaire		
Clinical Assessments:		
BPRS (Brief Psychiatric Rating Scale)		
GAF (Global Assessment of Functioning)		
Risk to Self: S / Risk to Others: O (CR62 hospital based risk assessment)		
DASA Average DASA (Dynamic Appraisal of Situational Aggression)		
Download and secure audio – if utilised – then erase		
Debriefing of patient – 1 week following	/ /	
Further Debriefing follow up required	Y / N	If yes, contact Psychologist
Completion Date for All actions:	DATE / /	

NOTE:

This appendix is included on pages 371-424 of the print copy of the thesis held in the University of Adelaide Library.

4

LIFE EVENTS CHECKLIST

Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally, (b) you witnessed it happen to someone else, (c) you learned about it happening to someone close to you, (d) you're not sure if it fits, or (e) it doesn't apply to you.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

Event	Happened to me	Witnessed it	Learned about it	Not sure	Doesn't apply
1. Natural disaster (i.e., flood, hurricane, tornado, earthquake).					
2. Fire or explosion.					
3. Transportation accident (i.e., car accident, boat accident, train wreck, plane crash).					
4. Serious accident at work, home, or during recreational activity.					
5. Exposure to toxic substance (i.e., dangerous chemicals, radiation).					
6. Physical assault (i.e., being attacked, hit, slapped, beaten up, kicked).					
7. Assault with a weapon (i.e., being shot, stabbed, threatened with a knife, gun, bomb).					
8. Sexual assault (i.e., attempt to rape, made to perform any type of sexual act through force or threat of harm).					
9. Other unwanted or uncomfortable sexual experience.					
10. Combat or exposure to a war zone (in the military or as a civilian).					
11. Captivity (i.e., being kidnapped, abducted, held hostage, prisoner of war).					
12. Life threatening illness or injury.					
13. Severe human suffering.					
14. Sudden, violent death (i.e., homicide, suicide).					
15. Sudden, unexpected death of someone close to you.					
16. Serious injury, harm, or death you caused to someone else.					
17. Any other stressful event or experience.					

NOTE:

This appendix is included on pages 426-445 of the print copy of the thesis held in the University of Adelaide Library.

ID:

DATE:

PCL-C

Instructions: Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

My most stressful life event was (please describe).....

	Not at all	A little bit	Moderately	Quite A bit	Extremely
1. Repeated, disturbing <i>memories, thoughts, or images</i> of a stressful experience from the past?	1	2	3	4	5
2. Repeated, disturbing <i>dreams</i> of a stressful experience from the past?	1	2	3	4	5
3. Suddenly <i>acting or feeling</i> as if a stressful experience from the past <i>were happening again</i> (as if you were reliving it)?	1	2	3	4	5
4. Feeling <i>very upset</i> when <i>something reminded you</i> of a stressful experience from the past?	1	2	3	4	5
5. Having <i>physical reactions</i> (e.g., heart pounding, trouble breathing,, sweating) when <i>something reminded you</i> of a stressful experience from the past?	1	2	3	4	5
6. Avoiding <i>thinking about or talking about</i> a stressful experience from the past or avoiding <i>having feelings</i> related to it?	1	2	3	4	5
7. Avoiding <i>activities or situations</i> because <i>they reminded you</i> of a stressful experience from the past?	1	2	3	4	5
8. Trouble <i>remembering important parts</i> of a stressful experience from the past?	1	2	3	4	5
9. <i>Loss of interest</i> in activities that you used to enjoy?	1	2	3	4	5
10. Feeling <i>distant or cut off</i> from other people?	1	2	3	4	5
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	1	2	3	4	5
12. Feeling as if your <i>future</i> somehow will be <i>cut short</i> ?	1	2	3	4	5
13. Trouble <i>falling or staying</i> asleep at night?	1	2	3	4	5
14. Feeling <i>irritable</i> or having <i>angry outbursts</i> ?	1	2	3	4	5
15. Having <i>difficulty</i> concentrating?	1	2	3	4	5
16. Being " <i>superalert</i> " or watchful or on guard?	1	2	3	4	5
17. Feeling <i>jumpy</i> or easily startled?	1	2	3	4	5

NOTE:

This appendix is included on pages 448 of the print copy
of the thesis held in the University of Adelaide Library.

RISK ASSESSMENT GUIDE

Risk of Harm to Self (Suicidality)

0. None No thoughts or action of harm	1. Low Fleeting suicidal thoughts but no plans/current low substance misuse	2. Moderate current thoughts/distress/past actions without intent or plans/moderate substance misuse	3. Significant current thoughts/past impulsive actions/recent impulsivity/some plans, but not well developed/increased substance misuse	4. Extreme current thoughts with expressed intentions/past history/plans/unstable mental illness/high substance misuse, intoxicated/violent to self/means at hand for harm to self
--	--	---	--	---

Risk of Harm to Others

0. None No thoughts or action of harm	1. Low Fleeting "harm to others" thoughts but no plans/current low substance misuse	2. Moderate current thoughts/distress/past actions without intent or plans/moderate substance misuse	3. Significant current thoughts/past impulsive actions/recent impulsivity/some plans, but not well developed/increased substance misuse	4. Extreme current thoughts with expressed intentions/past history/plans/unstable mental illness/high substance misuse, intoxicated/violent to others/means at hand for harm to others
--	--	---	--	---

Level of Problem with Functioning

0. None no more than everyday problems/slight impairment when distressed	1. Low Moderate difficulty in social/occupational or school functioning/reduced ability to cope unassisted	2. Moderate Significant impairment in one area (either social, occupational or school functioning)	3. Significant Significant impairment in several areas (social, occupational or school functioning)	4. Extreme inability to function in almost all areas
---	---	---	--	---

Level of Support Available

0. No Problems/Highly Supportive all aspects/most aspects highly supportive/self/family/professional/ effective involvement	1. Moderately Supportive variety of support available, able to help in times of need	2. Limited Support few sources of help, support system has incomplete ability to participate in treatment	3. Minimal few sources of support and not motivated	4. No support in all areas
--	---	--	--	-----------------------------------

History of Response to Treatment

0. No Problems/Minimal Difficulties most forms of treatment have been successful/new client	1. Moderate Response some responses in the medium term to highly structured interventions	2. Poor Response responds only in the short term with highly structured interventions	3. Minimal Response minimal response even in highly structured interventions	4. No Response no response to any treatment in the past
--	--	--	---	--

Attitude and Engagement to Treatment

0. No Problem/Very Constructive accepts illness and agrees with treatment/new client	1. Moderate Response variable/ambivalent response to treatment	2. Poor Engagement rarely accepts diagnosis	3. Minimal Response client never co-operates willingly	4. No Response client has only been able to be treated in an involuntary capacity
---	---	--	---	--

Individual risks may include: sexual disinhibition, impulsivity, intrusiveness, poor judgement, substance misuse, falls.

Global Assessment of Functioning (GAF) Scale

Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health-illness. Do not include impairment in functioning due to physical (or environmental) limitations.

Code (Note: Use intermediate codes when appropriate, e.g., 45, 68, 72.)

- 100 Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms.
91
- 90 Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g., an occasional argument with family members).
81
- 80 If symptoms are present, they are transient and expectable reactions to psychosocial stressors (e.g., difficulty concentrating after family argument); no more than slight impairment in social, occupational, or school functioning (e.g., temporarily falling behind in schoolwork).
71
- 70 Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social, occupational, or school functioning (e.g., occasional truancy, or theft within the household), but generally functioning pretty well, has some meaningful interpersonal relationships.
61
- 60 Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers).
51
- 50 Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job).
41
- 40 Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).
31
- 30 Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day; no job, home, or friends).
21
- 20 Some danger of hurting self or others (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute).
11
- 10 Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.
1
- 0 Inadequate information.

NOTE:

This appendix is included on pages 452 of the print copy
of the thesis held in the University of Adelaide Library.

BRIEF PSYCHIATRIC RATING SCALE (BPRS)

Patient Name _____

Today's Date _____

Please enter the score for the term that best describes the patient's condition.

0 = Not assessed, 1 = Not present, 2 = Very mild, 3 = Mild, 4 = Moderate, 5 = Moderately severe, 6 = Severe, 7 = Extremely severe

Score

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. SOMATIC CONCERN
Preoccupation with physical health, fear of physical illness, hypochondriasis. |
| <input type="checkbox"/> | 2. ANXIETY
Worry, fear, over-concern for present or future, uneasiness. |
| <input type="checkbox"/> | 3. EMOTIONAL WITHDRAWAL
Lack of spontaneous interaction, isolation deficiency in relating to others. |
| <input type="checkbox"/> | 4. CONCEPTUAL DISORGANIZATION
Thought processes confused, disconnected, disorganized, disrupted. |
| <input type="checkbox"/> | 5. GUILT FEELINGS
Self-blame, shame, remorse for past behavior. |
| <input type="checkbox"/> | 6. TENSION
Physical and motor manifestations of nervousness, over-activation. |
| <input type="checkbox"/> | 7. MANNERISMS AND POSTURING
Peculiar, bizarre, unnatural motor behavior (not including tic). |
| <input type="checkbox"/> | 8. GRANDIOSITY
Exaggerated self-opinion, arrogance, conviction of unusual power or abilities. |
| <input type="checkbox"/> | 9. DEPRESSIVE MOOD
Sorrow, sadness, despondency, pessimism. |
| <input type="checkbox"/> | 10. HOSTILITY
Animosity, contempt, belligerence, disdain for others. |
| <input type="checkbox"/> | 11. SUSPICIOUSNESS
Mistrust, belief others harbor malicious or discriminatory intent. |
| <input type="checkbox"/> | 12. HALLUCINATORY BEHAVIOR
Perceptions without normal external stimulus correspondence. |
| <input type="checkbox"/> | 13. MOTOR RETARDATION
Slowed, weakened movements or speech, reduced body tone. |
| <input type="checkbox"/> | 14. UNCOOPERATIVENESS
Resistance, guardedness, rejection of authority. |
| <input type="checkbox"/> | 15. UNUSUAL THOUGHT CONTENT
Unusual, odd, strange, bizarre thought content. |
| <input type="checkbox"/> | 16. BLUNTED AFFECT
Reduced emotional tone, reduction in formal intensity of feelings, flatness. |
| <input type="checkbox"/> | 17. EXCITEMENT
Heightened emotional tone, agitation, increased reactivity. |
| <input type="checkbox"/> | 18. DISORIENTATION
Confusion or lack of proper association for person, place or time. |

ID:
DATE:

The PFAV Scale

Instructions

Please read each statement and indicate how often you do or feel each of the things described, by placing a (✓) in the appropriate space.

	Never	Some Times	Often	Very Often
1. Do you find that you get angry very easily?				
2. How often do you feel very angry at people?				
3. Do you find that you get angry for no reason at all?				
4. When angry, do you get a weapon?				
5. Have you ever caused injury in a fight (for example, bruises, bleeding or broken bones)				
6. Have you ever hit or attacked a member of your family?				
7. Have you ever hit or attacked someone who is not a member of your family?				
8. Have you ever used a weapon to try to harm someone?				
9. Are weapons easily accessible to you?				
	Never	Once	Twice	More than twice
10. How often have you been arrested for a non-violent crime such as shoplifting?				
11. Have you ever been arrested for a violent crime such as armed robbery or assault?				
	No		Yes	
12. Do you keep weapons in your home that you know how to use?				

ID:

DATE:

AO

For the following items please rate how characteristic each is of you. Using the following rating scale record your answer in the space to the left of each item.

- 1 = Extremely uncharacteristic of me
- 2 = Somewhat uncharacteristic of me
- 3 = Only slightly characteristic of me
- 4 = Somewhat characteristic of me
- 5 = Extremely characteristic of me

- ___ 1. Once in a while I can't control the urge to strike another person.
- ___ 2. I tell my friends openly when I disagree with them.
- ___ 3. I flare up quickly but get over it quickly.
- ___ 4. I am sometimes eaten up with jealousy.
- ___ 5. Given enough provocation, I may hit another person.
- ___ 6. I often find myself disagreeing with people.
- ___ 7. When frustrated, I let my irritation show.
- ___ 8. At times I feel I have gotten a raw deal out of life.
- ___ 9. If somebody hits me, I hit back.
- ___ 10. When people annoy me, I may tell them what I think of them.
- ___ 11. I sometime feel like a powder keg ready to explode.
- ___ 12. Other people always seem to get the breaks.
- ___ 13. I get into fights a little more than the average person.
- ___ 14. I can't help getting into argument when people disagree with me.
- ___ 15. Some of my friends think I am a hothead.
- ___ 16. I wonder why sometimes I feel so bitter about things.
- ___ 17. If I have to resort to violence to protect my rights, I will.
- ___ 18. My friends say that I am somewhat argumentive.
- ___ 19. Sometimes I fly off the handle for no good reason.
- ___ 20. I know that "friends" talk about me behind my back.
- ___ 21. There are people who pushed me so far that we came to blows.

ID:

DATE:

- ___ 22. I have trouble controlling my temper.
- ___ 23. I am suspicious of overly friendly strangers.
- ___ 24. I can think of no good reason for ever hitting a person.
- ___ 25. I can sometimes feel that people are laughing behind my back.
- ___ 26. I have threatened people I know.
- ___ 27. When people are especially nice, I wonder what they want.
- ___ 28. I have become so mad that I have broken things.
- ___ 29. I am an even-tempered person.

CARD B1

- B2** Needed more or stronger tobacco
- B3** Chain smoked
- B4** Used a lot more tobacco than you intended to
- B5** Wanted to quit or cut down on tobacco
- B6** Tried to quit or cut down on tobacco and could not
- B7** Had problems after quitting or cutting down on tobacco
- B11** Started using tobacco again to keep from having problems
- B12** Used tobacco when a serious illness made it unwise
- B13A** Used tobacco after it caused you health problems
- B14A** Used tobacco after it caused you problems with your nerves
- B15** Felt dependent on tobacco
- B16A** Gave up activities to use tobacco

CARD D1

Group 1

Living things:

- Insects
- Snakes
- Birds
- Other animals

Group 2

- Heights
- Storms
- Thunder or lightning
- Being in still water like a swimming pool or lake

Group 3

- Flying
- Closed spaces:
- Caves
- Tunnels
- Elevators

Group 4

- Seeing blood
- Getting an injection
- Going to the dentist
- Going to a hospital

1. heart pound or race
2. sweat
3. tremble or shake
4. a dry mouth
5. short of breath
6. feel like you were choking
7. pain or discomfort in your chest
8. nausea or discomfort in your stomach
9. dizzy or feeling faint
10. feel that you or things around you were unreal
11. afraid that you might lose control of yourself, act in a crazy way, or pass out
12. afraid that you might die
13. hot flushes or chills
14. numbness or tingling sensations

CARD D2

- 1. Eating or drinking where someone could watch you**
- 2. Talking to people because you might have nothing to say or might sound foolish**
- 3. Writing while someone watches**
- 4. Taking part or speaking in a meeting or class**
- 5. Going to a party or other social outing**
- 6. Giving a speech or speaking in public**
- 7. Any other situation where you could be the centre of attention**

- 1. heart pound or race**
- 2. sweat**
- 3. tremble or shake**
- 4. a dry mouth**
- 5. short of breath**
- 6. feel like you were choking**
- 7. pain or discomfort in your chest**
- 8. dizzy or feeling faint**
- 9. feel that you or things around you were unreal**
- 10. afraid that you might lose control of yourself, act in a crazy way, or pass out**
- 11. afraid that you might die**
- 12. have hot flushes or chills**
- 13. have numbness or tingling sensations**

CARD D3

- 1. Being outside your home alone**
- 2. Travelling in a bus, train, or car**
- 3. Being in a crowd or standing in a line**
- 4. Being in a public place, like a shop**

- 1. heart pound or race**
- 2. sweat**
- 3. tremble or shake**
- 4. a dry mouth**
- 5. short of breath**
- 6. feel like you were choking**
- 7. pain or discomfort in your chest**
- 8. nausea or discomfort in your stomach**
- 9. dizzy or feeling faint**
- 10. feel that you or things around you were unreal**
- 11. afraid that you might lose control of yourself,
act in a crazy way, or pass out**
- 12. afraid that you might die**
- 13. have hot flushes or chills**
- 14. have numbness or tingling sensations**

CARD D4

- 1. heart pound or race**
- 2. sweat**
- 3. tremble or shake**
- 4. a dry mouth**
- 5. short of breath**
- 6. feel like you were choking**
- 7. pain or discomfort in your chest**
- 8. nausea or discomfort in your stomach**
- 9. dizzy or feeling faint**
- 10. feel that you or things around you were unreal**
- 11. afraid that you might lose control of yourself,
act in a crazy way, or pass out**
- 12. afraid that you might die**
- 13. have hot flushes or chills**
- 14. have numbness or tingling sensations**

CARD D5

1. restless
2. feel keyed up or on edge
3. easily tired
4. difficulty keeping your mind on what you were doing
5. more irritable than usual
6. tense, sore, or aching muscles
7. trouble falling or staying asleep
8. heart pound or race
9. sweat
10. tremble or shake
11. have a dry mouth
12. short of breath
13. feel like you were choking
14. pain or discomfort in your chest
15. pain or discomfort in your stomach
16. nausea
17. dizzy or lightheaded
18. feel that you or things around you were unreal
19. afraid that you might lose control of yourself,
act in a crazy way, or pass out
20. afraid that you might die
21. hot flushes or chills
22. numbness or tingling sensations
23. feel like you had a lump in your throat
24. easily startled

CARD J1

ALCOHOL EQUIVALENTS

HARD LIQUOR OR SPIRITS

1 highball, shot glass, or mixed drink,	=	1 drink
1/2 pint of spirits (gin, whiskey, rum, vodka)	=	6 drinks
1 pint of spirits	=	12 drinks
1 fifth of spirits	=	20 drinks
1 quart of spirits	=	24 drinks

WINE

1 glass of wine	=	1 drink
1 bottle of wine	=	6 drinks
1 "wine cooler"	=	1 drink
1 glass of sherry or port wine	=	2 drinks

BEER

1 bottle of beer (12 oz.)	=	1 drink
1 six-pack	=	6 drinks

1 drink = approximately 9 gm absolute alcohol

CARD J2

the shakes (hands trembling)

trouble sleeping

feeling very nervous

feeling very restless

sweating

fast heart beat

nausea or vomiting

headaches

weakness

see, hear, or feel things that others could not

seizures

CARD J3

liver disease or hepatitis

stomach disease or vomiting blood

tingling or numbness

memory problems even when not drinking

pancreatitis

any other disease

CARD J4

being uninterested in your usual activities

being depressed

being suspicious or distrustful of others

having strange thoughts

CARD K1

- 1. Direct combat experience in a war**
- 2. Life-threatening accident**
- 3. Fire, flood, or natural disaster**
- 4. Witnessed someone being badly injured or killed**
- 5. Rape, that is, someone had sexual intercourse with you when you did not want to, by threatening you or using some degree of force**
- 6. Sexual molestation, that is, someone touched or felt your genitals when you did not want them to**
- 7. Serious physical attack or assault**
- 8. Threatened with a weapon, held captive, or kidnapped**
- 9. Torture or terrorism**
- 10. Any other extremely stressful or upsetting event**
- 11. A great shock because one of the events on the list happened to someone close to you**

CARD L1

a: MEDICINES

Sleeping pills	Quaaludes	Percodan
Stimulants	Sedatives	Amphetamines
Tranquilizers	Barbiturates	Demerol
Valium	Seconal	Morphine
Librium	Codeine	Methadone
Xanax	Darvon	Dilaudid

b: DRUGS

Betel nut	Gasoline	Crack
Marijuana	Toluene	Heroin
Coca leaves	Peyote	DMT
Hashish	Mescaline	PCP
Khat	LSD	Glue
Ganja	Psilocybin	
Bhang	Opium	
Inhalants	Cocaine	

CARD L2

Medicines and drugs used more than five times when they were not prescribed for you:

<u>Marijuana</u>	Marijuana, Hashish, Bhang, Ganja
<u>Stimulants</u>	Amphetamines, Khat, Betel Nut
<u>Sedatives</u>	Tranquilizers, Sleeping Pills, Barbiturates, Seconal, Valium, Librium, Xanax, Quaaludes
<u>Opioids</u>	Heroin, Codeine, Demerol, Morphine, Percodan, Methadone, Darvon, Opium, Dilaudid
<u>Cocaine</u>	Cocaine, Crack, Coca Leaves
<u>PCP</u>	PCP
<u>Psychedelics</u>	LSD, Mescaline, Peyote, Psilocybin, DMT
<u>Inhalants</u>	Glue, Toluene, Gasoline
<u>Other</u>	<hr/>

HOW TAKEN

6. **IV, through the veins**
5. **Injection under the skin**
4. **Smoking, freebasing**
3. **Snorting, sniffing, breathing**
2. **By mouth: pills, drinking, chewing**
1. **Other methods**

CARD L3

fatigue or exhaustion

sweating

diarrhea

anxious

depressed

irritable

restless

trouble sleeping

tremors (hands tremble)

stomach ache

headache

weakness

nausea or vomiting

fits or seizures

muscle aches or cramps

runny eyes or nose

yawning

intense craving

seeing or hearing things that weren't really there

heart beating fast

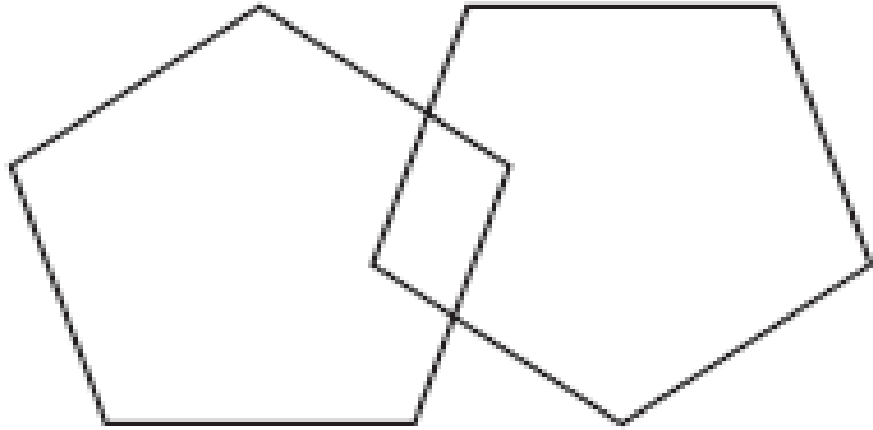
change in appetite

fever

CARD M1

CLOSE YOUR EYES

Draw this symbol



ID number:

Date:.....

You recently participated in research and explored some traumatic experiences. This questionnaire is a follow up to that research to see how you felt the interviews went, whether you found them helpful and how you feel about your participation now.

Please rate each answer on a scale of 1 - 10 by circling a number.

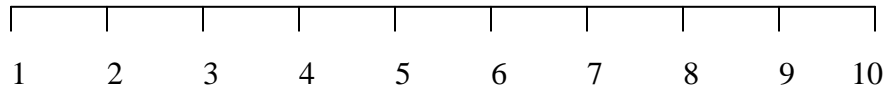
1. I found the process: Helpful?

Not at all Great Deal



2. I found the process: Distressing?

Not at all Great Deal



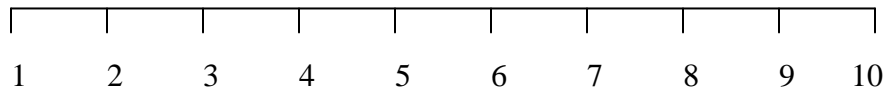
3. I found the process: Made my problems worse?

Not at all Great Deal



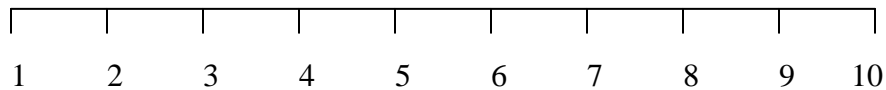
4. I found the process: Too demanding?

Not at all Great Deal



5. I found the process: Interesting?

Not at all Great Deal



ID number:

Date:.....

Please rate each answer on a scale of 1 - 10 by circling a number.

6. I found the process: Made me worry what the interviewer might think about me?

Not at all

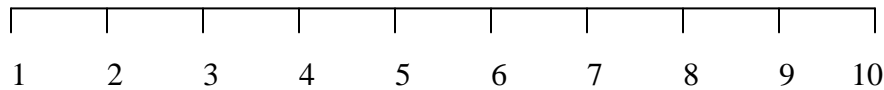
Great Deal



7. I found the process: Made me worry about people, other than the interviewer, knowing about me?

Not at all

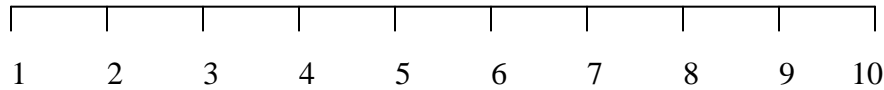
Great Deal



8. I found the process: Interviewer was supportive?

Not at all

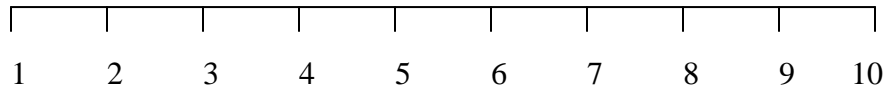
Great Deal



9. I found the process: I feel better having discussed these issues?

Not at all

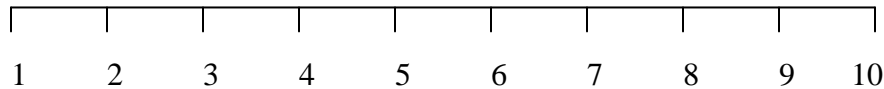
Great Deal



10. I found the process: I would recommend other patients be involved?

Not at all

Great Deal



Thank you for your participation!

h. Audio Recordings:

These are available from the author and a copy will be kept by the author's supervisor on the understanding that they will not be used or given out without the author's permission and are considered highly confidential – they may not be used outside of this PhD research.