

Setting Basic Standards in a Developing Ambulance Service:

A qualitative description of the impact of the
Intermediate Ambulance Care course on
prehospital care practice in Penang, Malaysia

Matthew Perry

Acknowledgement

First and foremost I would like to thank the good people of Penang and in particular those who work tirelessly for the wellbeing of those in need. It was a privilege for me to be allowed into your world and I thank you for allowing me to see what you see.

I wish to acknowledge all of the staff and my fellow students at the University of Adelaide. In particular the helpful administration team and postgraduate support team in Population Health (now the School of Public Health). Without your kindness and good-natured assistance I would not have completed this research.

I would like to thank my supervisors, Associate Professor Caroline Laurence, Professor Jonathan Karnon and Dr. Louise Reynolds for their support through my journey to completion. In particular Dr. Louise Reynolds for going the extra mile to help me when I needed it.

Finally, most importantly I would like to thank my family, without whom I could not have even started this project. My mother, Judith, whose unconditional support meant long hours poring over my writing. My wife, Adrienne, sons Ryan and Kian, who allowed me space when I needed it and stopped me writing when I needed to.

Thank you all, I have not done this alone.

Matt Perry.

Declaration

I 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 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.

I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library catalogue and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

Matthew J. Perry

Abstract

The Intermediate Ambulance Care (IAC) course is a thirty-week training program run in Penang Malaysia which was adapted from the South Australian Certificate IV in Ambulance Practice. The adaption of this program was designed and implemented to improve the clinical education of ambulance practitioners in Penang. However, the IAC is not the only course available within Penang or wider Malaysia, which seeks to improve the standard of care within the EMS. The question that remains unresolved is: what has been the impact upon the development of prehospital care as an occupation?

The prehospital care environment in Penang, Malaysia is a complex mix of government and non-government agencies, with variable training standards that lack consistency. Despite its central place in the public health system of many countries, there is little research or other literature available to inform the development of prehospital care education within developing countries. Even within developed systems, such as Australia, there is little evidence available to suggest how a program of education may assist prehospital care professional development.

This research considers the impact of the IAC on the development of prehospital care practice and how the course might have contributed to the development of an emerging profession. The questions in this research centre on what the IAC has achieved within the rapidly changing emergency medical system (EMS) in Penang as well as considering the perceptions of leading professions, such as the medical profession. The study examined the IAC in light of the attributes of a profession as suggested by Greenwood (1984).

A focused ethnography, triangulated with field notes and observational data, was conducted in order to describe the impact and subsequent professional development.

Focused ethnography was selected as the most appropriate methodology as the subject matter of this study was the constructed reality of professionalism and the subjective way in which a professional development course might contribute. As such semi-structured interviews were the most appropriate method for the collection of the primary data.

A total of eleven interviews were conducted and thematically analysed through the process described by Braun and Clarke (2006). The four themes that were identified were: Quality of training and quality of care go hand in hand; how standardisation is managed in Penang; the IAC one course that is assisting the development of a profession; and the management of change. The themes described the way in which the IAC contributed to the development of a distinct profession. Whilst pre-hospital care, as a profession, is yet to establish itself in Malaysia, in countries where it has there have been significant improvements in delivering public health outcomes.

This study sought to describe the impact of the IAC within the complex mix of service and education available, rather than in isolation. As such the study offers an insight into what can be achieved with a developing country's EMS by offering professional education and development.

Glossary of Terms & Abbreviations

Terms

Ambulance Practitioner This thesis uses the term Ambulance Practitioner to describe any person involved in ambulance practice. It encompasses all professional and non-professional groups involved in practice. For example Nurses, Doctors, Assistant Medical Officers can all be described as ambulance practitioners if their role at the time is to respond to emergencies in an ambulance. The term is used here to describe any person involved in ambulance practice and not to differentiate those with independent practice as in other parts of the world.

Ambulance Officer Refers to those who are employed or volunteer within an ambulance service. When a person is not part of another professional group, such as those listed above they are referred to as an Ambulance Officer.

Paramedic Paramedic refers to an ambulance practitioner who is involved in autonomous diagnosis and treatment of common, life threatening conditions. The title Paramedic is sometimes used without definition within literature. There is no internally accepted definition, however in this thesis the term Paramedic will only be used when describing professionals who operate as autonomous practitioners.

Physician In Malaysia Medical Doctors are often referred to as Physicians. The term is less common in commonwealth countries than the United States of America.

Abbreviations

AMO Assistant Medical Officer. AMO's are Diploma trained medical staff who provide limited diagnostic and treatment options under the direction of a Doctor. They were previously referred to as 'Medical Assistants' (MA's) and similar in role to the Physician Assistants in the United States of America.

BAC Basic Ambulance Care. This is a course originally run by St John Ambulance Malaysia, State of Penang, and was the previous standard for their ambulance medics. The BAC (or versions of it) has been adopted by Red Crescent Penang and Hospital Pulau Pinang to train ambulance practitioners. While not universally accepted, it is seen by many in the industry to be the standard of training currently. It is a 30-hour course. The IAC (a 300 hour course) was designed to build on this.

Bomba Jabatan Bomba Dan Penyelamat Malaysia is the Government Department responsible for Fire and Rescue services within Malaysia. This is commonly shortened to Bomba.

EP Emergency Physician. EP's are specialist Emergency Doctors within the hospital system.

EMS Emergency Medical Services. EMS refers to all aspects of the emergency medical system, however usually refers to prehospital care. Within this

thesis prehospital care will always be differentiated from the more general term of EMS.

- HPP or GH Hospital Pulau Pinang or the Penang General Hospital is the main public hospital, located in Georgetown, Penang.
- IAC Intermediate Ambulance Care course. This course lies at the centre of this thesis and was developed from a Certificate IV in Health Care (Ambulance) course taught in South Australia. It is delivered in partnership with SJAM Penang and available for any ambulance practitioner from any service to attend.
- MCDD/JPAM Malaysian Civil Defense Department. Also referred to as Jabatan Pertahanan Awam (JPAM)
- MRC The Red Crescent Society of Malaysia. In the context of this thesis all references the 'MRC' refers to the Penang chapter of that organization.
- NGO Non government organisation.
- RC or MRC The Malaysian Red Crescent, or Bulan Sabit Merah Malaysia. Part of the International Red Cross and Red Crescent organisation.
- SA or S.A. The state of South Australia. It is worth noting that when used in titles of S.A. Ambulance or S.A. Health it is not actually an abbreviation. The official title of those government bodies is not, for example, South Australia Ambulance, it is S.A. Ambulance.
- SJAM St John Ambulance of Malaysia. For the purpose of this thesis, SJAM refers to the St John Ambulance of Malaysia, State of Penang. Where reference is made to the national body the suffix, 'national' will be used.

Table of Contents

ACKNOWLEDGEMENT	3
GLOSSARY OF TERMS & ABBREVIATIONS	7
TERMS	7
ABBREVIATIONS	8
CHAPTER ONE	15
1.1 INTRODUCTION.....	15
1.2 CONTEXTUALISING PREHOSPITAL CARE WITHIN PUBLIC HEALTH FRAMEWORK	16
1.2.1 <i>The role of education in professional development</i>	18
1.3 BACKGROUND AND CRITIQUE OF THE LITERATURE.....	19
1.4 MODELS OF PRACTICE AND TERMINOLOGY.....	21
1.5 DEVELOPMENT OF AMBULANCE EDUCATION & PRACTICE: THE MALAYSIAN CONTEXT	24
1.5.1 <i>Ambulance Education and Service Provision and Education in Penang</i>	27
1.5.2 <i>Organisation of Ambulance Services in Penang</i>	29
1.5.3 <i>Ambulance Utilisation in Penang</i>	30
1.6 PROFESSIONALISM AND EDUCATION WITHIN AMBULANCE PRACTICE	32
1.7 THE INTERMEDIATE AMBULANCE CARE COURSE WITHIN THE WIDER CONTEXT.....	33
1.8 RESEARCH QUESTIONS	34
1.9 AIMS/OBJECTIVES OF THE PROJECT	35
CHAPTER TWO.....	37
2.1 LOCATING THE STUDY	37
2.1.1 <i>What's in a name?</i>	38
2.1.2 <i>Ambulance Services in Penang</i>	40
2.2 THE INTERMEDIATE AMBULANCE CARE COURSE: THE CONTEXT OF THE STUDY	42
CHAPTER THREE.....	45
3.1 INTRODUCTION.....	45
3.2 PHILOSOPHICAL AND THEORETICAL PERSPECTIVES	46
3.2.1 <i>Ontology</i>	46
3.2.2 <i>Epistemology</i>	48
3.3 METHODOLOGY	49
3.4 METHODS	51
3.4.1 <i>Research Design</i>	51

3.4.2 <i>Semi-structured Interviews</i>	51
3.4.3 <i>Triangulation of Methods</i>	52
3.4.4 <i>Observation</i>	53
3.5 ETHICAL CONSIDERATIONS AND INFLUENCE OF THE RESEARCHER	56
3.5.1 <i>Researcher Influence and Cultural Context</i>	56
3.5.2 <i>Anonymity of Participants</i>	59
3.5.4 <i>Ethics Approval & Acceptance by Stakeholder Organisations</i>	59
3.6 PROCESS	59
3.6.1 <i>Initial Contact and Information</i>	59
3.6.2 <i>Recruitment for Interviews and Selection Criteria</i>	60
3.6.3 <i>Non-Respondents</i>	61
3.6.4 <i>Interviews</i>	62
3.6.5 <i>Identification of Data Saturation</i>	62
3.6.6 <i>Data Analysis</i>	62
3.6.7 <i>Validation of Thematic Analysis</i>	64
3.6.8 <i>Process of Data collection by Observation</i>	64
CHAPTER FOUR	67
4.1 INTRODUCTION.....	67
4.2 RESPONDENTS AND RESPONSE RATES	68
4.3 PARTICIPANTS ROLES	68
4.4 OBSERVATIONS.....	70
4.5 OUTCOMES	71
4.6 DETAILED ANALYSIS OF THEMES.	73
4.6.1 <i>Quality of Training and Quality of Care Go Hand in Hand</i>	73
4.6.2 <i>How Standardisation Is Being Managed in Penang</i>	78
4.6.3 <i>The IAC is One Course That is Assisting the Development of a Profession</i>	80
4.6.4 <i>The Management of Change</i>	82
CHAPTER FIVE	87
5.1 INTRODUCTION.....	87
5.2 DISCUSSION.....	88
5.2.1 <i>Education and a body of knowledge</i>	89
5.2.2 <i>Outcomes in Relation To Ambulance Service Provision</i>	90
5.2.3 <i>Community involvement</i>	92
5.2.4 <i>Areas of development for the emerging profession of prehospital care practice</i>	92

5.2.4 <i>Appropriate methodology and methods</i>	95
5.3 LIMITATIONS.....	96
5.3.1 <i>Limitations within the Methodology, Method and Ethics</i>	96
5.3.2 <i>Temporal Limitations</i>	98
5.4 FURTHER RESEARCH	98
APPENDICES	101
APPENDIX 1: IAC COURSE DESCRIPTION	102
APPENDIX 2: LITERATURE SEARCH RESULTS.....	105
APPENDIX 3: S.A. AMBULANCE PARAMEDIC SCOPE OF PRACTICE.....	125
APPENDIX 4: AMBULANCE ATTENDANCE IN PENANG (HPP STATISTICS)	127
APPENDIX 5: APPLICATION OF THE VERIFICATION CRITERIA BY MORSE ET AL. (2008)	134
APPENDIX 6: ETHICS APPROVAL.....	135
APPENDIX 7: INTERVIEW GUIDE.....	136
APPENDIX 8: AN EXAMPLE OF FIELD NOTES	138
APPENDIX 9: LETTERS OF APPROVAL TO CONDUCT RESEARCH	141
APPENDIX 10: CONSENT FORM TEMPLATE.....	148
APPENDIX 11: BAC & IAC SCOPE OF PRACTICE - SJAM PENANG.....	149

TABLE OF FIGURES

FIGURE 1: MALAYSIAN PENINSULAR.....	37
FIGURE 2: THE STATE AND ISLAND OF PENANG.....	38
FIGURE 3: THE DISTRICTS OF PULAU PINANG	39

Tables

TABLE 1: ROLE DEFINITIONS OF PREHOSPITAL CARE PRACTITIONERS IN SELECTED COUNTRIES.....	21
TABLE 2: BRIEF COMPARISON OF 'PARAMEDIC SKILLS'	23
TABLE 3: OBSERVABLE PROFESSIONAL ATTRIBUTES.....	55
TABLE 4: <i>DESCRIPTION OF PARTICIPANTS</i>	69
TABLE 5: <i>OBSERVATION SCHEDULE</i>	70
TABLE 6: OBSERVABLE PROFESSIONAL ATTRIBUTES AND THE FINDINGS FROM THIS STUDY	94