# 'KNOWLEDGE' AND 'ATTITUDE' OF PRE-SERVICE TEACHERS IN SOUTH AUSTRALIA TOWARDS SEXUALLY TRANSMISSIBLE INFECTIONS (STIs) AND OTHER BLOOD-BORNE VIRUSES (BBVs)

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## **Table of Contents**

		List of Headings	Page No.
Table	e of Cont	rents	i
List	of Tables	and Figures	X
Gloss	sary of T	erms	xvii
Absti	ract/Key	words	xix
Decla	aration		xxi
Publi	cations a	arising from the Thesis	xxii
Ackn	owledge	ments	xxiii
1.	The Co	ontext of STIs and other BBVs and the Current Study	1
1.1	Introdu	action	1
1.2	Backgr	round of the Study	2
	1.2.1	Historical Perspective of STDs in South Australia	2
1.3	Statem	ent of Problems	8
	1.3.1	STI and other BBV Statistics in South Australia	8
	1.3.2	Sex Education in South Australia	18
	1.3.3	Pre-service Teacher Training in Sex Education in South	
		Australia	20
	1.3.4	The Health and Physical Education Curriculum in South	
		Australia	21
1.4	Signific	cance of the Study	23
1.5	The Pro	esent Study	30
	1.5.1	Research Aims	30
	1.5.2	Research Objectives	30

	1.5.3	Research Questions.	31
	1.5.4	Research Participants	32
	1.5.5	Research Assumptions	32
	1.5.6	Research Limitation	32
	1.5.7	Research Delimitation	32
1.6	Thesis	Structure	33
2.	Theore	etical Background	35
2.1	Introdu	action	35
2.2	Knowl	edge	36
2.3	Attitud	e	40
2.4	Agents	of Socialization	43
2.5	Summa	ary	47
3.	Reviev	v of Related Literature	48
3.1	Introdu	action	48
3.2	Bacteri	al STDs	48
	3.2.1	Chlamydia	49
	3.2.2	Gonorrhoea	52
	3.2.3	Syphilis	53
3.3	Viral S	TDs	54
	3.3.1	Genital Warts	54
	3.3.2	Genital Herpes.	65
	3.3.3	HIV/AIDS	68
3.4	Other I	BBVs	79
	3.4.1	Hepatitis A, B, and C	80
3 5	Combi	ned STDs	82

3.6	Summa	ary	84
4.	STIs &	k other BBVs	85
4.1	Introdu	action	85
4.2	Bacter	ial STIs	87
	4.2.1	Chlamydia	87
	4.2.2	Gonorrhoea	88
	4.2.3	Syphilis	89
4.3	Viral S	TIs	90
	4.3.1	Genital Warts	90
	4.3.2	Genital Herpes	91
	4.3.3	HIV/AIDS	92
4.4	Other 1	BBVs	94
	4.4.1	Hepatitis A	94
	4.4.2	Hepatitis B	95
	4.4.3	Hepatitis C	96
4.5	Summa	ary	98
5.	Metho	dology	99
5.1	Introdu	action	99
5.2	Variab	les	101
5.3	Design	L	113
5.4	Sample	es	115
5.5	Analys	is	119
	5.5.1	Entry and Coding	120
	5.5.2	Analytic Procedures	125
5.6	Summ	arv	130

6.	Measu	rement an	nd Psychometric Testing	131
6.1	Introdu	ection		131
6.2	The Fu	ndamental	s of Measurement and Psychometric Testing	131
6.3	Classic	al Test Th	eory versus Item Response Theory	133
6.4	Applyi	ng the Ras	ch Model	135
	6.4.1	Rasch M	odel for Dichotomous Data	137
	6.4.2	Rasch M	odel for Attitude Data	139
6.5	Determ	nining the '	goodness-of- fit' to the Rasch Model	140
6.6	Validit	y and Relia	ability	147
	6.6.1	Validity	and Reliability Analysis - Pilot Study	152
		6.6.1.1	Face and Content Validity	152
		6.6.1.2	Construct Validity and Reliability - Knowledge Scale	153
		6.6.1.3	Construct Validity and Reliability - Attitude Scale	161
	6.6.2	Validity	and Reliability Analysis - Main Study	167
		6.6.2.1	Construct Validity and Reliability - Knowledge Scale	167
		6.6.2.2	Construct Validity and Reliability - Attitude Scale	175
6.7	Summa	ary		179
7.	Results	s I: 'Close	d-ended' Quantitative Analysis	181
7.1	Introdu	ection		181
7.2	Demog	graphic Att	ributes	181
7.3	The Sh	apiro-Wilk	Test for Normality	185
7.4	Knowle	edge and a	ttitudes of pre-service teachers in SA towards STIs and	
	other B	BVs		187
7.5	Relatio	nship betw	veen the knowledge and attitude attributes of pre-	
	service	teachers in	n SA regarding STIs and other BBVs	188

7.6	The kn	owledge of pre-service teachers in SA regarding STIs and other	
	BBVs	across the demographic attributes	190
	7.6.1	Gender	190
	7.6.2	Age	191
	7.6.3	Highest educational level	192
	7.6.4	Subject stream	193
	7.6.5	Undertaking the HPE curriculum	195
7.7	The att	itude of pre-service teachers in SA regarding STIs and other	
	BBVs	across the demographic attributes	196
	7.7.1	Gender	196
	7.7.2	Age	197
	7.7.3	Highest educational level	198
	7.7.4	Subject stream.	199
	7.7.5	Undertaking the HPE curriculum	201
7.8	The ma	ajor sources of information for pre-service teachers in SA	
	regardi	ng STIs and other BBVs	202
7.9	Summa	ary	203
8.	Result	s II: 'Open-ended' Qualitative Analysis	206
8.1	Introdu	action	206
8.2	Propos	ition one: Perspectives regarding an increase of STIs in SA	209
8.3	Propos	ition two: Perspectives regarding the vulnerability of young	
	people	to contracting STIs	211
8.4	Propos	ition three: Perspectives regarding the role of an effective	
	educati	ion in containing the spread of STIs	216
8.5	Propos	ition four: Perspectives regarding the HPE curriculum in	

	addressing STI education.	224
8.6	Proposition five: Perspectives regarding the place of teacher education in	
	addressing sexual health	230
8.7	Summary	235
9.	Discussion	237
9.1	Introduction	237
9.2	Knowledge of pre-service teachers in SA towards STIs and other BBVs	238
9.3	Attitudes of pre-service teachers in SA towards STIs and other BBVs	242
9.4	Relationship between the knowledge and attitude attributes of pre-	
	service teachers in SA regarding STIs and other BBVs	245
9.5	The knowledge of pre-service teachers in SA regarding STIs and other	
	BBVs across the demographic attributes	245
9.6	The attitude of pre-service teachers in SA regarding STIs and other	
	BBVs across the demographic attributes	248
9.7	The major sources of information for pre-service teachers in SA	
	regarding STIs and other BBVs	250
9.8	Perspectives of pre-service teachers in SA towards STI-related issues	253
9.9	Perspectives of pre-service teachers in SA towards the role of an	
	effective education in containing the spread of STIs	257
9.10	Perspectives of pre-service teachers in SA towards the place of teacher	
	education in addressing sexual health	261
9.11	Summary	263
10.	Conclusion	264
10.1	Structure of the Thesis	264
10.2	The Key Findings	267

10.3	Strengths of the Study		
10.4	Implications		273
	10.4.1 Toward	ds Policy and Practice	276
	10.4.2 Toward	ds Future Research	278
10.5	Concluding Co	mments	279
Арре	endices		281
	Appendix A	Sexually Transmissible Infections and other Blood-	
		Borne Viruses' Knowledge and Attitude Questionnaire	281
	Appendix B	Research Project Information Sheet	288
	Appendix C	Standard Consent Form	290
	Appendix D	Contacts for Information on Project and Independent	
		Complaints Procedure	292
	Appendix E	Ethics Approval Certificate	293
	Appendix F	Ethics Renewal Certificate	295
	Appendix G	E-mail template for participants	296
	Appendix H	Snapshot of the webpage of the main study at	
		'obsurvey.com'	297
	Appendix I(a)	Frequency and per cent of the identified themes and	
		subthemes of the reasons for an upsurge of STIs in	
		SA (Q64)	298
	Appendix I(b)	Frequency and per cent of the identified themes and	
		subthemes of the reasons for the vulnerability of	
		adolescents and young adults to contracting STIs (Q65)	299
	Appendix I(c)	Frequency and per cent of the identified themes and	
		subthemes of the role of education in general in	

	combating the spread of STIs (Q66)	300
Appendix I(d)	Frequency and per cent of the identified themes and	
	subthemes regarding the likelihood of the HPE	
	curriculum in general in providing an effective	
	education to contain STIs (Q67)	301
Appendix I(e)	Frequency and per cent of the identified themes and	
	subthemes regarding the proposition of the HPE	
	curriculum as compulsory/non-compulsory under	
	the new SACE (Q68)	302
Appendix I(f)	Frequency and per cent of the identified themes and	
	subthemes regarding the adequacy of the HPE	
	curriculum in addressing STI-related issues (Q69)	303
Appendix I(g)	Frequency and per cent of the identified themes and	
	subthemes regarding the factors responsible for the	
	lack of a comprehensive sex education curriculum in	
	SA (Q70)	304
Appendix I(h)	Frequency and per cent of the identified themes and	
	subthemes regarding the proposition of a sex education	
	as compulsory/non-compulsory in SA (Q71)	305
Appendix I(i)	Frequency and per cent of the identified themes and	
	subthemes regarding the proposition of the	
	necessity/non-necessity of STI-related information for	
	pre-service teachers in SA (Q72)	306
Appendix I(j)	Frequency and per cent of the identified themes and	
	subthemes regarding the proposition of pre-service	

References		309
	related knowledge and attitudes (Q74)	308
	in SA towards enhancing pre-service teachers' STI-	
	subthemes as pertaining to addressing teacher education	
Appendix I(k)	Frequency and per cent of the identified themes and	
	teachers in SA as informed/uninformed of STIs (Q73)	307

## **List of Tables and Figures**

7	โต	h	les
	u	.,,	

Chapter/ Table No.	Legend	Page No.
Chapter 1		
Table 1.1	Notifications of Gonorrhoea in South Australia and in	
	Australia, 1966-1977	5
Table 1.2	Compiled statistics for SA regarding STIs (chlamydia,	
	donovanosis, gonorrhoea and infectious syphilis) for the	
	period 2006-2010	10
Table 1.3	Summary statistics of STDs in South Australia, 2008	11
Table 1.4	Compiled statistics for SA regarding HIV infection and	
	AIDS for the period 2001-2010	12
Table 1.5	Compiled statistics for SA regarding viral hepatitis (A, B,	
	C, D) for the period 2006-2010	13
Table 1.6	HIV infection in males in SA, 01/04/09-30/06/09,	
	01/04/10-30/06/10 and year to date. Case category by age	
	at diagnosis	15
Table 1.7	Genital chlamydial infection in SA, 01/04/09-30/06/09,	
	01/04/10-30/06/10 and year to date. Age group by sex	16
Table 1.8	Gonococcal infection detected in SA, 01/04/09-30/06/09,	
	01/04/10-30/06/10 and year to date. Age group by sex	16
Table 1.9	Syphilis infection in SA, 01/01/09-30/06/09 and 01/01/10-	
	30/06/10. Age group by sex	17

#### Chapter 3 Table 3.1 (i) Overview of research regarding teachers' HIV/AIDS 77 related knowledge and attitudes Table 3.1 (ii) Overview of research regarding teachers' HIV/AIDS related knowledge and attitudes (contd.) 78 Table 3.1 (iii) Overview of research regarding teachers' HIV/AIDS related knowledge and attitudes (contd.) 79 Chapter 5 Table 5.1 Characteristics of the four measurement scales 102 Table 5.2 103 Operationalization of research Table 5.3 STI-related (knowledge and/or attitude) questionnaires/scales 105 Table 5.4 The underlying coding and its attributes for SPSS data 122 entry Table 5.5 The Quest control file commands and its functions 124 Table 5.6 Selecting the appropriate tests for comparisons between two groups and more than two groups and association between two interval or ordinal variables 128 Chapter 6 Table 6.1 Some Reasonable Item Mean Square Ranges for Infit and Outfit 142 Table 6.2 Methods of Survey Validation 149 Table 6.3 Types of Reliability: Descriptions, Indices, and Definitions 150 Table 6.4 'Knowledge' Scale (Pilot study): Summary of item and

	case Estimates	153
Table 6.5	'Knowledge' Scale (Pilot study): Individual item fit	
	statistics and discrimination indices (DI)	157
Table 6.6	'Knowledge' Scale (Pilot study): Rewording of items	
	based on the fit statistics and/or discrimination indices (DI)	160
Table 6.7	'Attitude' Scale (Pilot study): Summary of item and case	
	Estimates	161
Table 6.8	'Attitude' Scale (Pilot study): Individual item fit statistics	
	and discrimination indices (DI)	165
Table 6.9	'Attitude' Scale (Pilot study): Rewording of items based on	
	the fit statistics	167
Table 6.10	'Knowledge' Scale (Main study): Summary of item and	
	case Estimates	168
Table 6.11	'Knowledge' Scale (Main study): Individual item fit	
	statistics and discrimination indices (DI)	172
Table 6.12	Comparison of old and new values of reworded items of	
	the 'Knowledge' Scale based on the fit statistics and/or	
	discrimination indices (DI)	174
Table 6.13	'Attitude' Scale (Main study): Summary of item and case	
	Estimates	175
Table 6.14	'Attitude' Scale (Main study): Individual item fit statistics	
	and discrimination indices (DI)	177
Table 6.15	Comparison of old and new values of reworded items of	
	the 'Attitude' Scale based on the fit statistics	170

Chapter 7			
Table 7.1	The Shapiro-Wilk test of normality for Rasch knowledge		
	estimates	186	
Table 7.2	The Shapiro-Wilk test of normality for Rasch attitude		
	estimates	186	
Table 7.3	The knowledge score of the sample of pre-service teachers		
	in SA towards STIs and other BBVs	187	
Table 7.4	The attitude score of the sample of pre-service teachers in		
	SA towards STIs and other BBVs	187	
Table 7.5	The Spearman's rank correlation between the knowledge		
	and attitude attributes of the sample of pre-service teachers		
	in SA regarding STIs and other BBVs	189	
Table 7.6	The Mann-Whitney test [(i) Ranks (ii) Test Statistics] of		
	the knowledge of the sample of pre-service teachers in SA		
	regarding STIs and other BBVs across gender	191	
Table 7.7	The Kruskal-Wallis test [(i) Ranks (ii) Test Statistics] of		
	the knowledge of the sample of pre-service teachers in SA		
	regarding STIs and other BBVs across age	192	
Table 7.8	The Kruskal-Wallis test [(i) Ranks (ii) Test Statistics] of		
	the knowledge of the sample of pre-service teachers in SA		
	regarding STIs and other BBVs across highest educational		
	level	193	
Table 7.9	The Kruskal-Wallis test [(i) Ranks (ii) Test Statistics] of		
	the knowledge of the sample of pre-service teachers in SA		

regarding STIs and other BBVs across subject stream

194

Table 7.10	The Mann-Whitney test [(i) Ranks (ii) Test Statistics] of	
	the knowledge of the sample of pre-service teachers in SA	
	regarding STIs and other BBVs across undertaking the	
	HPE curriculum attribute	195
Table 7.11	The Mann-Whitney test [(i) Ranks (ii) Test Statistics] of	
	the attitude of the sample of pre-service teachers in SA	
	regarding STIs and other BBVs across gender	197
Table 7.12	The Kruskal-Wallis test [(i) Ranks (ii) Test Statistics] of	
	the attitude of the sample of pre-service teachers in SA	
	regarding STIs and other BBVs across age	198
Table 7.13	The Kruskal-Wallis test [(i) Ranks (ii) Test Statistics] of	
	the attitude of the sample of pre-service teachers in SA	
	regarding STIs and other BBVs across highest educational	
	level	199
Table 7.14	The Kruskal-Wallis test [(i) Ranks (ii) Test Statistics] of	
	the attitude of the sample of pre-service teachers in SA	
	regarding STIs and other BBVs across subject stream	200
Table 7.15	The Mann-Whitney test [(i) Ranks (ii) Test Statistics] of	
	the attitude of the sample of pre-service teachers in SA	
	regarding STIs and other BBVs across undertaking the	
	HPE curriculum attribute	201

## Figures

Chapter/ Table No.	Legend	Page No.
Chapter 2		
Figure 2.1	Agents of socialization (Adapted from Pandit, 2009, Figure	
	2.2, p. 42)	44
Chapter 5		
Figure 5.1	Key decision areas in research (Adapted from Coolican,	
	1994, Figure 1.2, p. 17)	101
Figure 5.2	Sample size distribution vis'-a-vis' questionnaire	
	administration modes	119
Figure 5.3	Scales of the data	126
Chapter 6		
Figure 6.1	A simplified Rasch variable map (Adapted from Sick,	
	2008, Figure 1, p. 5)	145
Figure 6.2	Pattern of infit statistics for items (Adapted from UNICEF,	
	2007, Appendix 1, p. 77)	146
Figure 6.3	'Knowledge' Scale (Pilot study): Infit mean square	
	statistics for items (construct validity)	155
Figure 6.4 (i)	'Attitude' Scale (Pilot study) – Initial Run: Infit mean	
	square statistics for items (construct validity)	163
Figure 6.4 (ii)	'Attitude' Scale (Pilot study) – Final Run: Infit mean	
	square statistics for items (construct validity)	163
Figure 6.5	'Knowledge' Scale (Main study): Infit mean square	

	statistics for items (construct validity)	1/0
Figure 6.6	'Attitude' Scale (Main study): Infit mean square statistics	
	for items (construct validity)	176
Chapter 7		
Figure 7.1	The gender characteristics of the South Australian pre-	
	service teachers that constituted the sample for the study	182
Figure 7.2	The age range of the South Australian pre-service teachers	
	that constituted the sample for the study	182
Figure 7.3	The highest educational level of the South Australian pre-	
	service teachers that constituted the sample for the study	183
Figure 7.4	The subject stream of the South Australian pre-service	
	teachers that constituted the sample for the study	184
Figure 7.5	The 'undertaking the HPE curriculum' attribute of the	
	South Australian pre-service teachers that constituted the	
	sample for the study	185
Figure 7.6	The major sources of information for the sample of pre-	
	service teachers in SA regarding STIs and other BBVs	203
Chanton 10		
Chapter 10		
Figure 10.1	The enduring Cycle of Ignorance in relation to sex	
	education in schools in SA: The perspectives of pre-service	
	teachers in SA	275

#### **Glossary of Terms**

# Sexually transmissible/transmitted infections (STIs)

Invasion of and multiplication in bodily tissue by a microorganism (e.g., bacterium, virus, protozoan) that is usually (more than half the time) passed from one person to another during intimate bodily contact meant to give or derive sexual gratification (Shuford, 2008, para. 2).

# Sexually transmissible/transmitted diseases (STDs)

Pathology (i.e., damage) with or without symptoms secondary to an infection that is usually (more than half the time) passed from one person to another during intimate bodily contact meant to give or derive sexual gratification (Shuford, 2008, para. 3).

*Note*: According to Shuford (2008, para. 1), these terms are often confused but they are not inter-changeable with sexually transmissible/transmitted infection being the broadest term. She further asserted that "all STDs are STIs, but not all STIs are STDs". Hence, the acquisition of infection (or the pathogenic organism) can be referred to as a STI, whereas a disease manifestation (part of the body malfunctioning because of a STI) is a STD (Fitch & Cox, 2005). Therefore, throughout the thesis, these terms are used as fitting to the context and not interchangeably as suggested by Shuford. This also justified the title of the study as incorporating the term 'STIs' and not STDs.

#### **Blood-borne viruses (BBVs)**

HIV (Human immunodeficiency virus, a retrovirus, family *Retroviridae*), hepatitis B virus (family *Hepadnaviridae*) and hepatitis C virus (genus *Hepacivirus*, family *Flaviviridae*) though often spread sexually, are grouped under the category of blood-borne viruses on the pretext of the establishment of a viremia in which the infectious virus circulates in the blood, with the primary means of transmission being an exposure to contaminated blood or other bodily fluids, such as occurring in a therapeutic blood transfusion, the usage of hypodermic injections and intravenous drug use (Strauss & Strauss, 2008, pp. 1-32).

*Note*: Hepatitis C, however, is not primarily sexually transmitted (see Chapter 4). Therefore, it would have been erroneous to place this disease under the broad heading of STIs/STDs. Accordingly, HIV, in spite of being considered as a BBV was clubbed under its causative agent - a virus, and hence 'Viral STIs/STDs', to ease categorization (Chapters 3 and 4). Moreover, since the BBVs are also essentially viruses, hence the term 'other' was introduced before BBVs to distinguish this cohort from the 'Viral STIs/STDs'. This accounted for the second terminology 'other BBVs' in the title of the study and considered as separate from the first 'STIs'.

#### Knowledge

Knowledge in a subjective or intersubjective sense is the total sum of beliefs to which an individual or a group may subscribe (Bar-Tal & Kruglanski, 1988, p. 3).

#### Attitude

attitudes... [are ]... a state of readiness or predisposition to respond in a certain manner when confronted with certain stimuli...attitudes are reinforced by beliefs (the cognitive component), often attract strong feelings (the emotional component) which may lead to particular behavioural intents (the action tendency component) (Oppenheim, 1992, pp. 174-175).

#### **Pre-service teachers**

Pre-service teachers are students enrolled in a university's teacher education program who are working toward teacher certification. The majority of pre-service teachers are undergraduate students in their junior and senior years of college, although there are exceptions including post-baccalaureate or graduate students pursuing teacher certification and individuals pursuing alternative routes to certification and licensure (Braud, 2007, p. 16).

#### Abstract

The rate of sexually transmissible infections and other blood-borne viruses is high in South Australia. Young people are prone to contracting these diseases who rely on school programs for their health-related behaviours. Health-related behaviours, specifically knowledge and attitudes, can successfully disseminate from teachers to students. Hence, the present study explored the knowledge and attitudes of pre-service teachers in South Australia towards these diseases besides evoking perspectives towards disease-related issues, the role of an effective education thereof, and teacher education in addressing sexual health.

The samples (N = 320) comprised of pre-service teachers enrolled in teacher education courses at higher educational institutions in the State. Data collection from the samples took the form of a cross-sectional survey, both at the pilot and the main stages of study. The pilot study was essential to establishing the validity and reliability aspects of the knowledge and attitude scales of the developed questionnaire, which, however, was also measured at the main stage of analysis. A Rasch item analysis using the Quest Version 2.1 software established evidence of a construct validity and an acceptable reliability of both the scales at either stages of study.

Subsequent data analysis pertaining to the knowledge and attitudes largely depended on the Rasch estimates being non-parametric, and therefore, the application of non-parametric statistics using the SPSS Version 18.0 software. The open-ended perspectives with 272 valid responses, however, underwent a qualitative thematic analysis.

The quantitative analysis revealed a poor level of knowledge (mean score of 18.57 out of a possible 45) and a favourable attitude (mean score of 44.45 out of a possible 51) of South Australian pre-service teachers towards the diseases, with a low to

moderate positive relationship between the knowledge and attitude attributes ( $r_s = .196$ , p < 0.01). School, peers, and mass media campaigns constituted the major sources of information related to the diseases. There were no significant differences of either the knowledge or the attitude scores across the demographic variables gender, highest educational level, subject stream, and undertaking the related curriculum. However, attitude scores varied across age, with knowledge revealing no significant difference as earlier.

The qualitative analysis revealed that the majority of pre-service teachers perceived an information gap and an attitude and behaviour of individuals as primarily responsible for a high disease rate in the State and young people contracting these, respectively. The majority perceived that the related curriculum does not address STI-related issues and that teachers are primarily responsible for the lack of a comprehensive sex education in the State. The majority, however, was largely supportive towards the call for a compulsory sex education. Further, reflecting that they themselves lack adequate knowledge on these diseases, pre-service teachers suggested the introduction of sexual health as a core topic in teacher education.

The findings have implications for educators, policy makers, key stakeholders in the field of sexual health education, and the school and the community to raise awareness of the many areas that adolescents and young adults experience problems in, and particularly related to sexual health.

**Keywords:** knowledge, attitudes, pre-service teachers, sexually transmissible infections, blood-borne viruses

#### **Declaration**

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 to *Joy Talukdar* and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due references has been made in the text.

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Name:	Joy Talukdar	
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#### **Publications arising from the Thesis**

- 1. **Talukdar**, **J**. (2013). The epidemiology of STDs and AIDS in early Australia. *Internet Journal of Sexual Medicine*, 2(1).
- Talukdar, J., & Aspland, T. (2013). Review of STI-related 'knowledge' and 'attitude' studies: Implications for teacher education in South Australia. *Asia-Pacific Journal of Health, Sport and Physical Education*, 4(1), 65-80. doi:10.1080/18377122.2013.760428.
- 3. **Talukdar**, **J**., Aspland, T., & Datta, P. (2013). Sex education in South Australia: the past and the present. *Sex Education: Sexuality, Society and Learning*, *13*(1), 107-116. doi: 10.1080/14681811.2012.681037.
- 4. **Talukdar**, **J**. (2012). The history of sexually transmitted diseases. *International Journal of Medical and Health Sciences*, 1(3), 83-88.
- 5. **Talukdar**, **J**., & Aspland, T. (2012). Is the 'Health and Physical Education' curriculum in South Australia enough? A critical review of the SACSA framework and the new SACE curriculum. *Journal of Curriculum and Teaching*, *1*(1), 25-40. doi: 10.5430/jct.v1n1p25.

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Thankfulness is the beginning of gratitude. Gratitude is the completion of thankfulness. Thankfulness may consist merely of words. Gratitude is shown in acts.

Henri Frédéric Amiel (1821-1881) Swiss writer.

Unfortunately, unlike words, the acts of gratitude cannot be painted on paper.

Nevertheless, if it is only words that determine the quality of a work thus, then it should also do its job for the players behind the work. Further, how can it be that for a work expressed in quantitative and qualitative terminologies, the words of thankfulness themselves do not reiterate the same?

Accordingly, the first words of thankfulness owes to my education at school and college. The *central tendency* during those years was to skip classes; nevertheless, those attended were sufficient to instil in me the knowledge, skills, and confidence required to pursue a work in the calibre of a thesis.

A good education of a child, in turn, owes a lot to good parents. While my biological parents endowed me with the education that sustains me to date, my acquired parents (parents-in-law) made me believe that 'I can'; however, the quadruple in their constant support and encouragement helped establish a strong and positive *correlation* between my self-concept and self-esteem.

Higher education in a foreign land with different academic and cultural norms, however, can be appalling at times. This proposition was strongly proved against by Professor Tania Aspland, the Principal Supervisor. Not only she served as a *reliable* container of vent emotions, but also proved herself as a distinguished and *valid* expertise in the field. Thriving successfully through the new educational milieu was also rendered possible by the *frequency* of visits to the Co-Supervisor Dr. Igusti Darmawan's lectures, where learning was fun than an anxiety.

Learning itself, however, is incumbent on the successful run of an establishment. It is not only the administrative staff of the establishment but also the colleagues, who, in terms of their guidance, support, motivation, and endurance render a *significant difference* to learning, which in turn is reflected in quality work produced.

The work itself, however, fails to attain quality standards without the active participation of individuals worked upon. Hence, pre-service teachers volunteering for the present piece of work were instrumental in terms of their *range* of responses towards rendering it in its current form and shape.

In addition to the key players to rendering the work successful as above, the dedication, determination, and discipline of the self are perhaps the most crucial determinants of the produce. Frequent *thematic* discussions with the self swayed the mind 'to or not to'; nevertheless, it was the aforementioned determinants that finally won over.

It is not always winning over the self that works - there needs to be a constant inspiration too! How often were the bills paid, the dinner laid, and intangible inspirations conveyed? The other self, the angel in my life, my wife Poulomee, rarely did sway in her emotions even when I did *deviate* from the *standards* of conjugal bliss by committing frequent *errors*. Believe me Poulomee, I did not want to be *mean* and this I prove by dedicating this work to you!!!