

**THE INVOLVEMENT OF THAI PARENTS
IN THE SEX EDUCATION
OF THEIR TEENAGE CHILDREN:
A MIXED METHODS STUDY**

by

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ABSTRACT

Background: Parent-child communication about sex is a strong determinant in increasing the age of sexual initiation, increased contraceptive use, as well as negative attitudes to early pregnancy in teenagers. In Thailand there has been some attempt to implement a sex education curriculum in schools with varied degrees of success. However, teenagers still find it difficult to talk with their parents about sexual matters.

Objectives: This study aimed to explore the attitudes of Thai parents and adolescents towards parental involvement in sex education.

Study design: A mixed method approach was taken using survey and interviews in 3 villages in Udon Thani province, Thailand. Surveys of 79 parents and 79 teenagers (15-19 years) took place in 2008 - 2009. Participants from that sample were recruited to take part in focus groups and in-depth interviews.

Results: Data were analysed separately then results merged. The survey data were used to identify relationships between knowledge and practice of safe sexual practices. Thematic analysis of the interview transcripts identified attitudes to sex education and barriers to communication in families. The restrictions imposed by traditional Thai culture support the continuing existence of double standards concerning the social norm for premarital sex. Parents and teenagers felt unable to address issues because of a perception of a lack of parental knowledge. Teenagers faced a dilemma of trying to respect their parents but needing to form their own identity which is influenced by knowledge of western values.

Conclusions: Parents and teenagers recognise the need to improve communication and knowledge of sexual health and would welcome interventions that would improve parental knowledge and access for young people to effective sexual health services.

Recommendations: Educational interventions are needed at local level to enable parents to develop knowledge and skills to act as educators.

LIST OF CONTENTS

ABSTRACT	ii
LIST OF CONTENTS	iii
LIST OF TABLES	viii
LIST OF FIGURES	x
ACKNOWLEDGEMENTS	xi
ABBREVIATIONS	xii
PUBLICATIONS AND CONFERENCES	xiii
CHAPTER 1: INTRODUCTION	1
1.1 General background information on Thailand	2
1.2 General information of Udon Thani province	5
1.3 Structure of the thesis	5
CHAPTER2: BACKGROUND	8
2.1 Context of adolescence	8
2.2 Sexual behaviours in adolescents	9
2.3 Sexual behaviours in Thai adolescents	12
2.4 Sex education policies	17
2.4.1 The purpose of sex education	17
2.4.2 Sex education policies across countries	19
CHAPTER 3: PARENT-CHILD COMMUNICATION ABOUT SEX	31
Search strategy	31
3.1 Parent-child communication about sex	34
3.2 Studies on parental communication about sex	35
3.2.1 Communication focused	35

3.2.2 Quality of quantitative methods	37
3.2.3 Quality of qualitative methods	47
3.3 The findings on parental communication about sex	50
3.3.1 Degree of parental communication	52
3.3.2 Content of parental communication	54
3.3.3 Context of parental communication about sex	56
3.3.4 Gender of parents	58
3.3.5 Timing of parental communication about sex	61
3.3.6 Barriers of parental communication about sex	62
3.3.7 The influence of peers	64
3.4 Links between parental communication and sexual risk behaviours	65
3.4.1 Sexual initiation	66
3.4.2 Birth control and numbers of partners	69
3.4.3 Unplanned pregnancy	70
3.5 Gaps in existing knowledge	71
CHAPTER 4: METHODOLOGY AND METHODS	73
Part 1: Methodology	73
4.1 Research philosophy	74
4.2 The reasons for using mixed methods in this research	76
4.3 Challenges in mixed methods research	78
Part 2: Methods	81
4.4 Population	81
4.5 Participants and settings	81
4.5.1 Participants in quantitative approach	81

4.5.2 Participants in the qualitative exploration	83
4.5.3 The selection criteria of participants	83
4.6 Data collection	83
4.6.1 Fieldwork process-gaining access	83
4.6.2 Fieldwork process-recruiting participants	85
4.6.3 Questionnaire survey	86
4.6.4 Focus groups	90
4.6.5 In-depth Interviews	99
4.7 Ethical issues	103
4.8 Rigour	105
4.8.1 The rigour of the quantitative study	107
4.8.2 The rigour of the qualitative study	108
4.9 Data analysis	111
4.9.1 Quantitative data analysis	111
4.9.2 Qualitative data analysis	114
4.9.3 Data analysis within the triangulation mixed methods design	127
4.10 Dissemination	130
CHAPTER 5: SURVEY FINDINGS	131
5.1 Demographic characteristics of the participants	132
5.1.1 Characteristics of teenagers	132
5.1.2 Characteristics of parents	134
5.2 Knowledge and awareness of sexual health	135
5.2.1 Information and knowledge of reproductive health	136
5.2.2 Resources for information and knowledge of reproductive health	137

5.2.3 Sex education at schools	139
5.3 Awareness of contraception and condom knowledge	146
5.4 Ideas about HIV/ AIDS and sexual transmitted infections	150
5.5 Awareness of health services	154
5.6 The attitudes of parents in relation to sex and sex education	162
5.7 The correlations and comparisons of knowledge and awareness of sexual health	164
CHAPTER 6: INTERVIEW FINDINGS	169
6.1 The influence of traditional Thai society persists	173
6.1.1 Social judgement of girls	174
6.1.2 Protecting teenagers and/ or enforcing the rules	177
6.1.3 Restrictions imposed by traditional Thai culture	184
6.1.4 Westernisation brings change	191
6.2 Talking about sex is difficult	195
6.2.1 Parental limitations	195
6.2.2 Better not bring it up	198
6.2.3 Parents rarely discuss sex directly with their children	200
6.3 Sex happens	211
6.3.1 Fears and concerns	211
6.3.2 Considering risks when having sex	213
6.3.3 Facing risks	216
6.3.4 Parents as problem solvers	217
6.4 Towards to the future	226
6.4.1 Problems are resolved within the family	226
6.4.2 Training and resources for parents and adolescents	227

CHAPTER 7: DISCUSSION	233
7.1 The influence of traditional Thai society persists	233
7.2 Talking about sex is difficult	245
7.3 Sex happens	250
7.4 Contribution to knowledge	256
CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS	258
8.1 Overall conclusion	258
8.2 The strengths of this study	261
8.3 Limitations of the study	264
8.4 Recommendations for health care policy	266
8.5 Recommendations for Practice	270
8.6 Recommendations for Education	274
8.7 Recommendations for future research	275
8.8 Key recommendations	276
REFERENCES	278
APPENDICES	308
Appendix A: Ethical approvals and the permission documents	309
Appendix B: Summarising the main outcomes of studies	312
Appendix C: Information sheets and consent forms	327
Appendix D: Schedule for data collection	332
Appendix E: Instruments of the study	333
Appendix F: Normal distribution tests	357
Appendix G: Coding	362
Appendix H: Themes, and subthemes generated from parents and teenagers	364

LIST OF TABLES

Table 4.1: The numbers of target population and participants	82
Table 4.2: The vignette used in focus groups of parents and teenagers	93
Table 4.3: Qualitative Data Analysis Strategies by Authors	118
Table 4.4: Codes from data extract	125
Table 4.5: The issues were addressed by quantitative and qualitative approaches	128
Table 5.1: Characteristics of teenagers	133
Table 5.2: Family backgrounds	134
Table 5.3: Characteristics of parents	135
Table 5.4: Whom teenagers talk to about sex	137
Table 5.5: Information resources for knowledge of reproductive health	138
Table 5.6: Sex education topics provided by schools	140
Table 5.7: Sex education topics that schools should provide	142
Table 5.8: Recall of sex education compared by gender	145
Table 5.9: Knowledge of prevention of pregnancy, condoms, and AIDS	147
Table 5.10: Condom awareness	148
Table 5.11: The average of the awareness of importance of using condoms	150
Table 5.12: Ideas about condoms and HIV/ AIDS	151
Table 5.13: diseases that teenagers can catch by having sexual intercourse	153
Table 5.14: knowledge of places of treatment for a sexually transmitted infection	154
Table 5.15: Awareness of health services	155
Table 5.16: Posters provided by health care facilities	156
Table 5.17: Sexual health problems or concerns experienced by the sample	158
Table 5.18: Attended a talk by doctors or nurses on sexual health topics	160
Table 5.19: Types of health services	161

Table 5.20: Attitudes of parents towards teaching sex education in family	163
Table 5.21: Pearson’s correlation of the knowledge of prevention and the awareness of the importance of using condoms of teenagers	165
Table 5.22: A comparison of means of the knowledge of prevention and the awareness of importance of using condoms with gender of teenagers	165
Table 5.23: A comparison of means of the attitude of parents towards teaching sex education in family with gender of parents	166
Table 6.1: Themes and subthemes from focus groups and in-depth interviews	172

LIST OF FIGURES

Figure 1.1: Map of Thailand, Udon Thani province and the study settings	4
Figure 3.1: Data sources for the review	33
Figure 4.1: The process of thematic analysis in this study	120
Figure 4.2: The diagram of transcribing and translating data of this study	123
Figure 4.3: Data display by network	126
Figure 4.4: Visual diagram for the triangulation mixed methods design of this study	129
Figure 6.1: The thematic map	171

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
CSCSEP	Culturally Sensitive Comprehensive Sex Education Programme
CSE	Comprehensive Sex Education
DH	Department of Health, England
FOH	Faculty of Health, University of East Anglia
HIV	Human Immunodeficiency Virus
IUD	Intrauterine device
MOPH	Ministry of Public Health, Thailand
NAM	School of Nursing and Midwifery
PAD	The People's Alliance of Democracy
PhD	The degree of Doctor of Philosophy
PTSRC	Parent Teen Sexual Risk Communication Scales
SIECUS	Sexuality Information and Education Council of the United States of America
SRCS	Sex-Related Communication Scale
SRH	Sexual and Reproductive Health
STDs	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections
UDD	The United Front for Democracy Against Dictatorship
UEA	University of East Anglia
UK	The United Kingdom
UNFPA	United Nations Population Fund
USA	The United States of America
WHO	World Health Organisation

PUBLICATIONS AND CONFERENCES

During the development of this thesis, a number of papers have been published.

Publications:

Sridawruang, C., Crozier, K. & Pfeil, M. (2010) Attitudes of adolescents and parents towards premarital sex in rural Thailand: A qualitative exploration. *Sexual & Reproductive Healthcare*, 1, 181-187.

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The 1st Global Conference of the Doctoral Midwifery Research Society. 1-3 September 2010. University of Ulster, Jordanstown campus, Northern Ireland.

Topic: ‘Attitudes of Thai adolescents and parents towards premarital sex: A qualitative exploration’

The 11th European Doctoral Conference in Nursing Science EDCNS 2010. 17-18 September 2010. University of Charite, Berlin, Germany.

Topic: ‘Attitudes of Thai parents and adolescents towards Sex Education’

The 1st International Conference in Asia on Qualitative Research in Nursing & Health: Situating & Stipulating Qualitative Health Research in Today’s Practices. 1-3 December 2010. Chiang Rai, Thailand.

Topic: ‘Why don’t Thai parents discuss sex with their children?: A qualitative exploration’

Poster Presentation: (Winner: Public's Favourite Poster)

The Showcase of Postgraduate Research, UEA 2010. 17 June 2010. Forum, Norwich,

England. Topic: 'Overcoming resistance of Thai parents providing sex education to their children', published on *Ziggurat: The magazine of the UEA Alumni Association*, (Autumn 2010), 39, 12.

CAPTER 1

INTRODUCTION

This thesis presents a mixed methods study exploring parental involvement in the sex education of their teenage children in three rural villages, Udon Thani province, Thailand. The study was undertaken between 2007 and 2010; it illuminates the views and opinions of parents and adolescents on the way families deal with issues of teenage sexuality and sex education within the context of rural Thai traditional culture.

Before I became a full time PhD student at the School of Nursing and Midwifery, Faculty of Health, University of East Anglia, I trained as a nurse and midwife and had worked as a nursing educator in the Maternal and Child Health Department of the Boromarajonnani College of Nursing in Udon Thani, Thailand, for 10 years (1998-2007). I had worked as a nurse midwife in the labour room, Udon Thani hospital, one of the biggest central hospitals in North-Eastern region (800 beds), to supervise and provide support for the 3rd and 4th years nursing students. I had gained experience as the head of the Health Promotion Department at the community hospital for seven years (1991-1997). My professional experience made me aware of common and persisting teenage health problems, including unwanted pregnancies, abortion and sexual transmitted diseases. I also had gained wide experience with field work research to promote maternal and child health in rural villages. I wanted to find out how these rural Thai families deal with issues of teenage sexuality and especially explore and outline the existing attitudes in relation to the provision of sex education by parents. Furthermore, I wanted to know how parents could help their adolescents in making choices and decisions about becoming sexually active in a modern

world. As better evidence concerning these issues could provide directions for future health education policy and practice the Royal Thai Government funded this research as a four year PhD scholarship.

1.1 General background information on Thailand

1.1.1 Demographical information

Thailand is situated in the southeast of continental Asia, and is part of the Indochina Peninsula (see map below). With an area of 514,000 kilometres² is the world's 49th largest country. Following Indonesia and Myanmar (otherwise known as Burma) it is the third largest country among the Southeast Asian nations. Thailand is a tropical country and is divided into 4 geographical regions: the central region (including the capital city of Bangkok), the North (including the country's second city Chiang Mai), the North-East (including Udon Thani province) and the southern regions.

1.1.2 Population

The population of Thailand is around 63 million (Wibulpolprasert *et al.*, 2007). Most of Thai people are Buddhists (94.5%), but Muslims (4.5%) and Christians (0.7%) do also live there (National Statistical Office, 2006). The rural population has been declining from 87.5% in 1960 to 68.3% in 2000 (Bryant & Gray, 2005). Thai is the official and most commonly used language for speaking and writing. A multitude of ethnic languages and regional dialects exist and English plays a greater role particularly in the business sector.

1.1.3 Economy

Capitalism and Westernisation have brought changes to the Thai economy over the past

decades. Many parts of Thailand have changed from an agricultural to an industrialised culture (MOPH, 2000). In the past, most of the agricultural sector was subsistence farming for household consumption. However, following a considerable increase in commercial agricultural production Thailand is now exporting rice to its neighbouring countries and beyond. Many people in the rural areas, especially in the North East, moved to urban areas to find jobs in the industrial and service sectors (MOPH, 2000). However, Thailand faces severe disparities between rich and poor and the income inequalities both within and between regions as well as between rich and poor groups are widening (UNFPA, 2001). Most Thai families in rural areas work as farmers. They are widely seen as the backbone of the country, but their income is very low. The average national monthly income per household has risen from 14963 baht (approximately 293 pounds (£); if 1£ = 48 Thai Baht) in 2004 to 17787 Baht (approximately 348£) in 2006. The North-Eastern region has the lowest and slowest growing household income with only 11815 baht (231£) in 2006 (National Statistic Office, 2006).

1.1.4 Family lifestyles

Traditional Thai society and culture is hierarchical, children are taught early to pay respect to their parents, older people and people of higher status. Most Thai people are Buddhists who believe in the concept of repayment for their parents' goodness. A quarter of all households is made up of extended families and contains members of three generations living together or perhaps under several roofs within the same compound (Elliott & Gray, 2000). The father is traditionally regarded as the leader, and the mother plays a significant role in household activities, particularly in the kitchen, and gives instructions to their children. Thai men still hold authority over women. The man is the master of the house, and his wife shows him deference and respect. Thai children become aware of their

position in the family hierarchy and learn the Thai lifestyle from their parents and elder relatives. Capitalism and Westernisation has brought changes to the Thai family structure, especially in urban societies where the nuclear family rather than the extended family is the norm.

Figure 1.1: Map of Thailand, Udon Thani province and the study settings



Sources: www.Phukhao.com; www.udonmap.com

1.2 General information of Udon Thani province

Udon Thani is one of the largest of 19 provinces in the North-Eastern region of Thailand. It is located 546 kilometres from Bangkok and covers an area of 15,589 km². Its boundaries stretch to Nong Khai province in the North, Khon Kaen province in the South, Sakon Nakhon province in the East, and Nong Bua Lumphu province in the West. 1.5 million People live in the province; of these 16.3% are adolescents (Udon Thani Provincial Public Health Office, 2006). Of the total population 73% live in rural areas and 77% of the population work in the agricultural sector and 99.4% of the population are Buddhists. Although only 11.6% of the population has attended school beyond primary school level the literacy rate is 94.9% (National Statistical Office, 1993).

The average age of marriage in Udon Thani province is 22 years in females and 26 years in males and the overall contraceptive usage among married women aged 15 to 49 years is 69.8%, but only 27.4% in rural areas. Nearly 20% of all babies born in the province have teenage parents (Udon Thani Provincial Public Health Office, 2008) and the increasing abortion numbers in teenagers are currently at 30.4%. At the same time the prevalence of sexually transmitted infections (STI) is extremely high in young people; having reached to 52% of all STI locally diagnosed STIs in 2008 (Udon Thani hospital, 2007).

1.3 Structure of the thesis

This thesis is divided into 8 chapters. This Introduction has outlined and explained the researcher background and provided general information on Thailand, in particular the North-Eastern region and Udon Thani province. It also provides details of the content

covered in each chapter. Chapter 2 introduces the reader to the background of the study and contains information on sexual behaviours in adolescents, including abortion issues and the consequences from illegal abortions. It also presents information about sex education policies across different countries and in Thailand. Chapter 3 contains an overview of the literature concerning parents' and adolescents' perspectives on parental communication about sex and links between parental communication and sexual risk behaviours of adolescents. In addition, gaps in existing knowledge within the field are identified.

Chapter 4 contains details of methodology including the mixed methods approach and why this mixed methods approach is suitable for this research. Each method undertaken with parents and adolescents in this research is described. In addition, the details of settings, sampling and recruitment are discussed as well as how data was collected including any instruments used. Finally the data analysis for each method is considered.

Chapters 5 deals with the data originating from a questionnaire survey undertaken with adolescents and parents in rural villages, while Chapter 6 illustrates the findings of the subsequent focus groups and in-depth interviews which explored the attitudes of parents and adolescents towards premarital sex and sex education, the barriers that prohibit parental communication about sex, and the needs of both parents and adolescents for sex education in family.

The penultimate chapter 7 critiques and discusses the findings from the survey and the interviews. These are merged where they complement each other, differences are examined and appropriate comparisons made. Chapter 8 describes the overall conclusions of the

study, based on chapters 5, 6, and 7. The strengths and limitations of the study are outlined. The thesis concludes by making recommendations for practice and policy making and by identifying areas for further research.

The Next chapter will provide further background information to the reader begin the review of the relevant literature.

CHAPTER 2

BACKGROUND

Introduction

This literature review provides the necessary background information on adolescence, including adolescents' sexual behaviours. It discusses the potential consequences of sexual risk taking in adolescents, especially teenage pregnancy and abortion issues. It concludes by considering the variety of approaches to sex education by examining the relevant policies in a number of countries, including the United Kingdom, the United States, Australia, Norway, the Netherlands and South East Asia, including Thailand.

2.1 Context of adolescence

Eighty-five percent of adolescents live in developing countries (Keeney *et al.*, 2004). Defined by Keeney *et al.* (2004) as young people aged 10 to 19 years, they are 'no longer children, [but] not yet adults' (WHO, 1997, page 3). Adolescence is a transition period of growth, exploration and experimentation, as well as a time of rapid development towards mature forms of thought, emotion, and behaviour during which young people face many new situations and challenges (WHO, 1997). The transition from childhood to adolescence is fraught with biological, psychological, and social changes that can be quite disruptive (WHO, 2002). Additionally, adolescents are thought to lack mature skills to cope with these changes and, therefore, they need help from those around them at this stage in life (Allison, 2000). Healthy development of adolescents is dependent upon several complex

factors such as the environment in which they live and grow. The family plays a critical role in healthy adolescent development, because it is a task of adolescence to achieve independence from parental care. However, contact with their peers is equally important in order to develop their interpersonal skills by interacting with them. In this period, they also learn to deal with their sexual feelings and to make decisions. This includes whether or not to have sexual contacts. If the environment is not safe and supportive, the potential of sexual risk taking behaviours increases (Rafei, 2000).

‘Risk’ and ‘risk-taking’ refers to a chance of loss and indulging in risky behaviours (Beyth-Marom & Fischhoff, 1997). Sexual risk could be defined as a history of sexual intercourse involving multiple partners and/or no contraception use (Rodgers, 1999) and any history of sexual intercourse could be considered as a category of risk (Blum *et al.*, 2000). However, the way in which teenagers take sexual risks, i.e. make choices to engage in or not to engage in sexual activity including how they make choices about contraceptives, is still unknown (Brooks-Gunn & Paikoff, 1997).

2.2 Sexual behaviours in adolescents

It is clear that today’s young people are sexually active at an earlier age than previous generations and that a majority of them become sexually active before high school graduation (Wellings *et al.*, 1995; Lindsay *et al.*, 1999). However, the sexual activities of today’s young people differ from those of earlier generations, in that teenagers today are likely to have multiple partners, and are frequently in short-term relationships or with partners that are not well known to them (Feldman *et al.*, 1999).

The numbers of teenagers who engage in early sexual relations has increased and sexual activity in teenagers could be viewed as a normal developmental behaviour. The age at marriage is increasing while the age at which puberty begins is decreasing so that the current age range for attainment of puberty is 9 to 14 years for boys and 8 to 13 for girls. The widening gap between the age at which puberty begins and the normal age of marriage increases the possibility of adolescents engaging in premarital sexual activity (Roque & Gubhaju, 2001). As a result of high rates of sexual activity and high risk behaviours teenagers are exposed to unwanted outcomes, including sexually transmitted infections, unintended pregnancy and its consequences (WHO, 1998; Edgardh, 2000; Diclemente *et al.*, 2001; Vundule *et al.*, 2001). While many people view teenagers' behaviour as risk taking, teenagers do not necessarily view themselves as at risk. Instead, many teenagers hold the unrealistic view that they are unique and invulnerable and they under-estimate the negative consequences of risk taking (Hockaday *et al.*, 2000).

A number of studies in the USA, the country with the highest percentage of teenage pregnancy in the Western developed world, have reported high rates of teenage sexual relationships. Many American teenagers are faced with the consequences of sexual risk taking, especially from unprotected sexual intercourse. For example, Jaccard *et al.* (1996) in a study of 751 unmarried black teenagers aged 14 to 17 years found that 57% of respondents engaged in sexual intercourse (65% of male teenagers, and 50% of female teenagers), with 58% of them not using condoms at first intercourse. Similarly, a study by Hacker *et al.* (2000) that considered 1000 10th and 11th graders in Boston found 72% of male teenagers and 54% of female teenagers had sexual intercourse and only 35% of sexually active respondents reported the use of a contraceptive every time. Finally, a study with 256 American sexually experienced teenagers found that 18% of male teenagers and

31% of female teenagers reported never using a condom when having sex (Halpern-Felsher *et al.*, 2004).

Teenage pregnancy is one of consequences of unprotected sexual intercourse and a common occurrence around the world. According to the World Health Organisation (WHO) an estimated 14 million adolescents aged 15 to 19 years gave birth each year between 1995 and 2000, with 12.8 million of these occurring to teenagers in developing countries. Maternal death and other complications are higher in teenage pregnancy (WHO, 2007a) and unmarried female teenagers who had children might be considered at greater risk than married teenagers because births with unmarried teenagers are often unintended and unwanted (Singh, 1998). At the same time the number of teenage abortions stands now at an annual 4 million worldwide, frequently with significant and disproportionate risks from unsafe abortion practices in many parts of the world (WHO, 2007a). Over half of teenage pregnancies are terminated, and in the United States an estimated 40% of teenage pregnancies end in abortion (Aquilino & Bragadottir, 2000). In the UK where abortion is legal, 41,325 women under the age of 18 became pregnant in 2008 and of these 49% chose to undergo an abortion (DH, 2010a).

Unsafe abortion is a serious problem in many developing countries. Each year around 18.5 million unsafe abortion cases are reported in developing countries, and 14% of all unsafe abortions in developing countries relate to young women (19 and younger) (Shah & Ahman, 2004). It is difficult to calculate the annual numbers of adolescent abortions in developing countries but informed estimates range from 1 to 4.4 million (McCauley & Salter, 1995). In Africa 60% of unsafe abortions were found among women under 25 years old whereas in Asia 30% of unsafe abortions occur in under 25 year olds (Shah & Ahman,

2004). A study in Mexico reported 5 to 8% of maternal deaths to have been caused by unsafe abortions, although the frequent underestimation of abortion-related deaths makes any investigation into this subject difficult (Walker *et al.*, 2004). For example, in Cambodia adolescents were found not to inform their parents of their intentions for fear of punishment; instead they often seek an abortion from non-medical staff by themselves (UNFPA, 2000).

Many teenagers have undergone unsafe abortions because of limited access to reproductive information and advice. They may lack safe resources because abortion is still illegal in many developing countries. Marital status is one of the important reasons for unmarried women to have unsafe abortions as the way to solve the problem of unwanted pregnancy. Many of them have considered complications of induced abortions but strong social stigmatisation for premarital sex remains a greater concern for young girls who decide to conceal their pregnancy by terminating it (WHO, 2007a). Teenagers are also known to have undergone abortion for want of financial resources and a reluctance to approach families for financial help (Brown *et al.*, 2001). Therefore, a lack of family support might also limit access to resources needed for a safe abortion.

2.3 Sexual behaviour in Thai adolescents

As in many other countries, sexual risk behaviours in Thai teenagers have increased and they have sexual intercourse at an earlier age. Although in Thai traditional culture premarital sex is not accepted, today's teenagers in Thailand are embarking on sexual relationships outside the boundaries of marriage. This has been attributed to the increasing

influence of western ideas brought by industrialisation and urbanisation (Rasamimari *et al.*, 2007).

The proportion of teenage mothers in Thailand has increased from 10.4% to 12.4% between 2000 and 2003 (Thato *et al.*, 2007). A study by Isaranurung *et al.* (2006) found that 13.3% of all Thai pregnancies occurred in women under 20 years of age and the highest percentage of teenage pregnancies was found in North-Eastern region of the country (18%). Higher rates of low birth weight infants were also found in teenage mothers when compared to mothers aged 20 years and over (15.1% vs. 8.8%). In addition, a study that focused on the incidence and complications of teenage pregnancy, found 20% of teenage mothers to give birth prematurely compared to 13.5% mothers over the age of 20. Similarly, the percentage of mothers with anaemia is higher in teenagers (17%) than in adults (11%) (Watcharaseranee *et al.*, 2006).

A study of 362 teenagers, 10th to 12th grades, in Bangkok found that 25.4% of male teenagers as well as 7.9% of female teenagers had experience of coitus and that 9.7% reported homosexual experience (O-Prasertsawat & Petchum, 2004). Based on a study of 832 Thai female vocational students Allen *et al* (2003) indicate that the average age of first coitus was 17.6 years and that 48 % of male students and 43% of female students who had experienced sexual intercourse reported not using contraceptives.

A number of Thai studies also report teenage sexual risk taking. This includes Somrongthong *et al.* (2003) who found one-sixth of the 377 young people (12 to 22 years) in a slum community in Bangkok believed that having sexual intercourse with a lover is safe. Their results link closely to a study by Paz-Bailey *et al.* (2003), who state that only

around 6% of teenagers report using a condom every time they had sex at the beginning of a relationship. The study focused on 1725 Thai students, aged 15 to 21 years. Overall, 46% of their respondents reported having sexual experiences and 53% had four or more sexual partners. Therefore it is perhaps not surprising that teenage pregnancies and ST infections are common. Thato *et al.* (2003) report that 24% of sexually active teenagers in Bangkok had experienced unplanned pregnancies or had been treated for sexually transmitted infections (STIs) (7%).

These studies demonstrate clearly that unprotected intercourse among teenagers is one of the neglected healthcare problems in Thailand. Condom-use has been promoted as a means of protection from diseases such as AIDS/ HIV, and Thailand has had successful campaigns to reduce the National HIV prevalence (Avert, 2011). However, young people were not specifically addressed during the overall very successful HIV-prevention campaigns carried out since the 1990s. Because of this missed opportunity they are still unaware of the risk of unsafe sexual behaviour and might become a high-risk group for HIV and other sexually transmitted infections.

The main limitation of the studies outlined above is their focus on urban youth, mainly in Bangkok and it is unclear how far it is possible to generalise these studies to all teenagers across Thailand. Therefore, a study of sexual risk behaviours in teenagers in rural Thai society is required. Potential problems areas become instantly visible. For example, in rural Thailand the contraception unit of public health officers is regarded by the public as a service for married people, usually women, which means that teenagers of both sexes feel that they are unable to approach these professionals for contraception advice and assistance (Thato *et al.*, 2003). Family planning programmes in Thailand have succeeded in reducing

fertility for married women, whereas unmarried women have been neglected and access to reproductive health services remains limited (UNFPA, 2005). This resulted in the frequent appearance of complications caused by chemically-induced unsafe abortions by unlicensed practitioners, which is still a major public health problem in Thailand (Warakamin *et al.*, 2004).

The destruction of a life by an induced abortion is considered a serious Buddhist sin called *bap* = บาป. Many rural women remain fearful of the consequences of sin or ‘*bap*’ and therefore choose to continue with an unintended pregnancy (Whittaker, 2002a).

Furthermore, induced abortion is a crime under sections 301-305 of the 1957 Penal Code of Thailand. Women who take steps to induce an abortion by themselves or allow another person to take steps terminating their pregnancy are subject to legal penalties. They can be sentenced to three years in prison and a fine of 6000 Baht (around 120 pounds, if 1 pound = 48 Baht) (Whittaker, 2002b). Thai law accepts requests for legal abortion only in cases of rape or cases where abortions are required to terminate pregnancies by qualified doctors because the continuation of a pregnancy will result in serious complication for the mother (Gray *et al.*, 1999; Narkavonnakit, 1979). The Thai law does not allow pregnant women to obtain an abortion due to pregnancy caused from any failure of contraception (Warakamin *et al.*, 2004) or to continue education, which are the most commonly stated reasons for induced abortion among unmarried women. Married women, on the other hand, most commonly list economic reasons for an illegal induced abortion (Gray *et al.*, 1999). However, despite restrictive laws, the estimated annual number of induced abortions in Thailand is in the region of 300,000 to 400,000 cases (Intaraprasert & Boonthai, 2005).

While induced abortion is an illegal practice in Thailand, cases of unsuccessful abortions are allowed to be treated in hospitals. A variety of techniques are reportedly used to perform abortions in Thailand such as insertion of the toxic foreign substances, injection of a liquid solution into the cervical canal (40%), vaginal suppository (13.6%), oral tablets (11.6%), or the lower abdomen compressed by a manual technique (11%) (Warakamin *et al.*, 2004). It is possible for Thai women who have financial support to have abortions induced by trained medical staff in private clinics using vacuum aspiration or dilation and curettage (Whittaker, 2002a). However, few rural village women can afford the costs of such clinic procedures. For most adolescents, economic issues also play a central role in the decision-making process. It is more difficult for them to obtain financial resources for an abortion, safe procedures are usually expensive. Adolescents of low economic status therefore often seek less-skilled illegal providers and undergo dangerous procedures often resulting in unsafe and hurried abortions with little, if any, follow-up care (Whittaker, 2002a). This exposes them to direct complications such as death (WHO, 2007a).

A review of 45,990 case records of abortions within 787 Thai government hospitals in 1999 and face-to-face interviews with a sub-set of 1854 women patients by Warakamin *et al.* (2004) found that induced abortion was a major consequence of unplanned pregnancy in unmarried women. Half of the induced abortion cases in Thailand were women less than 25 years old with around 30% of cases being teenagers. In teenagers who had experienced induced abortion, 29% of cases had serious complications from their unsafe abortion practices. The top three serious complications were septicaemia (21.6%); uterine perforation (0.4%); and maternal death (0.1%). Within the current Thai situation these numbers can only be reduced by comprehensive sex education.

2.4 Sex education policies

The definition of sex education has changed over time. It started as the provision of simple physiological and biological knowledge but has developed into a much more complex process of accumulating information including effective communication skills, covering aspects of biological, sociological, psychological, and spiritual dimensions to make responsible decisions (US National Guidelines Task Force, 1991). This development with its inclusion of personal relationships, sexual health, education about sexuality and religious views as well as behaviour and critical reflection on personal experience (Measor *et al.*, 2000; Halstead & Reiss, 2003). This has enabled *sex education* to become ‘larger than information, affirmation or prohibition’ and it is related to most aspects of life including ‘love, loss, vulnerability, power, friendship, aggression’ (Gilbert, 2007, page. 49).

2.4.1 *The purpose of sex education*

A comprehensive sex education strategy is important for teenagers to help avoid risky sexual behaviour resulting in contracting HIV or other sexually transmitted infections (Cok & Gray, 2007). Teenagers who have received formal sex education postpone sexual initiation and are more likely to use contraception (Mueller & Powers, 1990). Sex education can encourage adolescents to understand their bodies, their feelings, their urges, and themselves (Meenagh, 2003). However, the question arises, who should provide the guidance? One important avenue for reaching young people is through school-based sex education, which in many countries is now mandatory. However, school-based programs were envisaged as an adjunct to parental communication about sex and sexuality, rather than as a replacement (Omi *et al.*, 2006). It is generally accepted that the introduction of

sexual and reproductive health education as early as the pre-school level is most effective in developing positive types of behaviour in adolescents (Omi *et al.*, 2006).

Despite the widely recognised importance of sex education, it remains a sensitive and sometimes controversial issue. Part of the problem may relate to the confusion of what sex education should be; and it has now become a highly political issue. The political argument has been highlighted by Shtarkshall (2007, page 116) to include

‘Disagreements about the role of government in family life and sex education; parental control of the content of sex education; core values to be included in sex education, such as gender equality and personal responsibility; and fundamentally, what constitutes appropriate adolescent sexual behaviour’.

This US American quotation might not be instantly applicable in all countries, such as in some Asia-Pacific countries, especially where cultural sensitivities do not allow health educators to raise sex education as an important issue.

The importance of sex-educations demands that teenagers’ response to sex education programmes is evaluated (Measor *et al.*, 2000). Improving adolescents’ sexual health will not be effective unless both information and services are available (Omi *et al.*, 2006). In the United Kingdom the provision of comprehensive information together with sexual and reproductive health services (SRH) made only a very small impact on teenage pregnancy rates (DH, 2010b) resulting in a downward trend following a ten year campaign. The international evidence-base for the prevention of teenage pregnancies makes it clear that not only schools and professionals are important, but that parents do also play a significant role in conveying information to their teens as well as in providing them with social and cultural values regarding intimate and sexual relationships. Their contribution is the

foundation on which healthcare workers and educators build by providing sexual information and developing related social skills (Shtarkshall *et al.*, 2007).

One issue that arises relates to the importance of sex educators working with parents (Shtarkshall *et al.*, 2007). School and health professionals should acknowledge and support the critical role of parents in sex education, and parents should support schools in providing sex education. The health professionals' programme may be able to offer a significant amount of work with parents prior to the sessions in the school. School sex education programmes can make a serious effort to work with parents and negotiate content appropriate to their offspring (Measor *et al.*, 2000; Shtarkshall *et al.*, 2007).

2.4.2 Sex education policies across countries

Sex education policies for young people vary across countries by strategies and methods to prevent sexual risk behaviours of teenagers. Most of the evidence relating to sex education derives from Western countries, such as the United Kingdom. There, the provision of sex education in schools has been continually developed to provide knowledge of sexual health for young people. However, in many other countries, such as Turkey, sex education is not present in the national educational system (Cok & Gray, 2007), and in Vietnam that it is almost impossible to talk publicly about sexual issues or values (Trinh *et al.*, 2009).

Sex education in the United Kingdom

The first official guidance on health education in the UK was established in 1956 as a handbook for teachers, focused on hygiene education, physical health, and sexual moral health elements. Instruction on these topics was required in all grades of schools but the content of sex education was unclear. There were some conflicts between the ideas of

teachers, parents, and policy makers (Pilcher, 2005). The main purpose of sex education in schools was decreasing embarrassment about sexual matters, preventing pregnancy and sexual transmitted diseases, and encouraging the role of women and men in society (Halstead & Reiss, 2003).

The vision of sex education policies have changed to holistic approaches covering multidimensional aspects. A study by Measor *et al.* (2000) among 13 to 15 year old secondary school pupils in southeast England, found them to be critical of the sex education they received, because they felt the information given was not explicit enough. They stated that sex education had covered all the biological aspects but not issues they wanted to know about. Similarly, a mixed methods study of 2450 young people aged 14 to 25 years in Northern Ireland also found that teachers primarily used handouts to communicate about sex with their students and did not teach the subject directly. Furthermore, the teachers answered questions related to sexual matters by writing on the blackboard because the ‘Catholic church does not approve of the use of contraception’ (Rolston *et al.*, 2005, page 224). Students need information on sex-related issues from their teachers directly. However, the influence of Christianity on sex education at schools in Northern Ireland resulted in a culture of silence and conservatism. A policy shift is required to move sex education forward and to allow other voices to give adequate sex education at schools (Rolston *et al.*, 2005).

The ‘Teenage Pregnancy Strategy’ launched by the Department of Health in England (DH) (1999) aimed to reduce the high rate of teenage pregnancy by promoting access to information and effective contraception. More recently, the strategy was amended significantly to include the importance of positive relationships and the need to stay in

good sexual health (DH, 2010b). Teenage pregnancy strategies at a local level in England have made headway, providing sexual information advice and support for teenagers. The sustained effort over ten years showed a first, still hesitant reduction in numbers of teenage pregnancies only in 2009 (DH, 2010b). Therefore, a large investment over a long period appears to be required in order to make a difference. There are critics of this policy and some disagreement about ways of approaching the issues with variations across England and the other three countries which make up the United Kingdom.

Teenage pregnancy in the UK is still the highest in Europe and second only to the USA in the western developed countries. National statistics show 31 births per 1000 female teenagers at the age of 15 to 19 years in the UK, nearly five times higher than the Netherlands (7), four times higher than France (8), and more than twice that of Germany (13) (Leishman & Moir, 2007). Contraception rates for UK teenagers, under 18 years old have fallen from 25% in 1998 to 13.3 % in 2010, this reduction does allow the speculation that the UK teenage pregnancy rate might have increased because of the decreasing contraception rate. The high rate of teenage pregnancy including low rates of contraception among teenagers is the challenge that healthcare policy makers have to consider, in order to find a way of promoting safe sex for teenagers.

Parents have insufficient knowledge and lacking confidence to discuss sex with their teenagers. Many strategies have been driven to promote sexual health for teenagers, such as 'Sex Worth talking About' the new media campaign which was created to help teenagers make right decisions when they become sexually active, and support parents to communicate with their young people (DH, 2010b). In contrast to the early sex education beginnings, the newer sex education policies are not limited to schools but they also

directly focus on the family's role in sex education. Sex education was refined to consider respect between the sexes, social context and parenthood (Pilcher, 2005) as well as help to encourage and use appropriate social skills (Leishman & Moir, 2007). A suitable, non-threatening environment should be provided, enabling young people to feel comfortable to express their thoughts openly. This may help young people to articulate their values, perceive responsibilities, and relationships with their parents, peers, and teachers. Moreover, the health professionals who work with teenagers should be well informed and experienced in order to address issues with varied backgrounds of young people (Leishman & Moir, 2007).

Sex education in the United States of America

The United States of America have comprehensive sex education goals and values offered by the Sexuality Information and Education Council of United States (SIECUS). The two main approaches to adolescent sexual education in the USA are abstinence-only-until-marriage and comprehensive sexual education (Mabray & Labauve, 2002). Several avenues of federal funding for formal sex education programmes promote adherence to the abstinence-only message. The abstinence-only approach aimed to encourage waiting for sex until marriage (Kohler *et al.*, 2008). Seventy percent of US school districts have a district sex education policy and of these 86% make it a requirement that abstinence is stressed. In one third of the districts with the abstinence-only approach contraceptive information is absolutely limited or prohibited. In the southern United States 55% of school districts have an abstinence-only policy (Mabray & Labauve, 2002).

Teenagers need to be provided with the necessary skills to achieve sexual health throughout their lives, but teachers are reported to try to refuse the comprehensive sex

education aimed to encourage balance both abstinence and birth control, including condoms, to prevent pregnancy and STIs. Instead, they prefer to use abstinence only programmes (Kohler *et al.*, 2008). According to a national survey only 2% of teachers taught abstinence in 1988, compared to 23% in 1998 (Lindberg *et al.*, 2006). The proportion of teenagers who had received information about birth control declined significantly, from 81% to 66% of male teenagers, and from 87% to 70% of female teenagers, between 1988 and 1998. On the other hand, the abstinence-only instructions have increased for male teenagers from 74% to 83% but have decreased for female teenagers from 92% to 86%, between 1995 and 2002 (Lindberg *et al.*, 2006).

A review and long term evaluation by Thomas (2000) addressed abstinence-based programs established by many sectors and implemented in different fields but failed to detect a significantly positive impact on the sexual behaviours of teenagers (Thomas, 2000). Even though pregnancy rates are declining in the USA, teenage pregnancy rates there remain higher than most Western countries. It could therefore be concluded that the current approaches fail to reach a significant number of teenagers (Mabray & Labauve, 2002), that focusing the abstinence-only programmes is not enough and that contraception should be provided for adolescents Weaver *et al.* (2005) state. This is supported by a US-wide survey of 1719 teenagers aged 15 to 19 years, which found that teenagers who received comprehensive sex education were less likely to experience pregnancy, compared to teenagers who did not receive formal sex education and who received abstinence-only education. The results show abstinence-only program did not have an effect in postponing the onset of sexual debut (Kohler *et al.*, 2008). However, as this recruited only a very small sample it might not be possible to transfer these results to all US teenagers.

A larger telephone study with 1605 parents of school-age youth aimed to explore parents' views about the comprehensive sex education (CSE) programme and found that most parents (89.3%) favoured teaching both abstinence and contraception. They perceived that CSE has some effect in helping their children to make choices for contraception when they did have sex (72.1%), that it helped them to protect themselves from HIV/AIDS (69.8%) and pregnancy (57.7%). The parents had higher means of 'positive- belief' scores with CSE (2.1) than abstinence-only (1.7) (Eisenberg *et al.*, 2008).

Sex education in Norway

Sex education in Norway aims to reduce sexual risk behaviours of teenagers, especially unwanted pregnancy, STIs and AIDS. While the USA has tried to promote abstinence only and focused on a 'sex is bad' approach to encourage teenagers to avoid sex before marriage, the Norwegian sex education curriculum provides comprehensive sex education to enable teenagers to have a choice about contraception and intimacy (Bartz, 2007).

Students learn about sexual matters at school during elementary levels at age seven until 16 years old. After 10th grades, students have the elective course 'Sexuality and Relationship' which emphasises decision making of teenagers about sex. Norwegian teachers have also tried to use new methods to encourage the knowledge of contraception in various ways such as 'role-playing; problem-solving; tours to sexual health clinics; and peer education' and make services serving a multicultural society (Bartz, 2007, page 20).

Sex education in the Netherlands

The Dutch sex education policy 'Living Together' is part of the national health promotion programme. At school sex education is included in related subject areas, it covers the topics of pregnancy, sexually transmitted diseases and, importantly, includes skills for

sexual health. The purpose of this sex education programme is to provide information to students and to encourage them, and expect them, to be active in their own education. Students could be deciding to have sex and identify safe and unsafe sexual practices (Weaver *et al.*, 2005).

Interestingly, the Netherlands has started to introduce sex information to their young people early, abortion is free, and contraception is easy to access. The results show remarkably low pregnancy and birth rates compared to other western developed countries (WHO, 2004; Leishman & Moir, 2007). The Dutch government supports a sex education programme within its national health promotion programme and teachers are specifically trained before they teach sex education to their pupils. Mobile educational teams also provide knowledge of contraception for teens. In addition, many sources related to sexual matters are provided for parents, clinics, family doctors and the media (Weaver *et al.*, 2005). The information from the Netherlands shows that the two goals of reducing teenage pregnancy and making teenagers wait before their sexual debut are not incompatible. The Dutch results seems to indicate that it is possible to provide young people with the sex information required to keep themselves safe yet, that this will not prevent them from eventually experimenting with sex, but on a delayed and considerably safer level.

Sex education in Australia

Sex education policies in Australia started in 1967 in schools in response to the increase of STIs and sexual behaviour problems among young people. The main topics of sex education were family- life, social, emotional, and sexual development. Within ten years all Australian states adopted these policies for school sex education. The policies have continually developed further and include five components. They are taking an all-school

approach, accepting adolescent sexual behaviours, providing skills for adolescents to control sexual risks, catering for sexual diversity and providing appropriate sex education information to adolescents (Weaver *et al.*, 2005). However, generally, the larger survey of Australian secondary students, year 10th and year 12th, found premarital sex has increased from 35% to 40%, and the proportion of sexually active students has increased from 20% in 2002 to 30% in 2008 (Smith *et al.*, 2009). Teenage births found 18.4 per 1000 women (15-19 years) that still higher rates than some developed countries such as the Netherlands and one third of sexual active teenagers still inconsistent use of contraception when having sex (O'Rourke, 2008). These sexual health outcomes have increased might relate to lacking knowledge and skills to negotiate safety and responsibility when having sex (O'Rourke, 2008).

Sex education in Asia-Pacific countries

A study focusing on HIV/AIDS school-based sex education in 11 Asia-Pacific countries, including Brunei, Cambodia, China, Indonesia, Malaysia, Mongolia, Myanmar, Papua New Guinea, Philippines, Thailand, and Vietnam reports that all countries surveyed pass on sexual information to students via schools, and most provide a narrow sex education programme, focusing on the biology of sexual reproduction rather than sexual practice. Most countries do not have explicit sex education for students in primary schools because sex education is seen as an inappropriate for these age groups. Cultural sensitivities also made teachers feel uncomfortable when they had to provide sex education to students (Smith *et al.*, 2003).

A study in all secondary schools in Hong Kong reported that 23% of teachers have no subject specific training before providing sex education to students. Only 27% of teachers

had more than 15 hours training on the subject of sex education before implementation of the sex education programme (Che, 2005). That means, sex education might have not previously been seen as an important subject on the Hong Kong school curriculum. Now, school sex education programmes have become much more active in providing comprehensive sex education for students, focusing on student centred learning such as group discussion about sex related issues (20% of schools) and 56% of schools used videotapes as resources for information on sexual matters.

In Thailand, schools have long been identified as the most appropriate environment in which to provide sex education for teenagers. Currently HIV prevention is a major focus of all sex education policies in Thailand, where HIV poses a serious threat to the well being of population (Smith *et al.*, 2003). The curriculum and teaching resources focus on the anatomy of human sexuality, the reproductive system, and on sexually transmitted diseases. For teenagers the focus of sex education in Thai schools complies with the traditional approach towards sexuality by focusing on the biological aspects. The wider views relating to the sexual development, bonding between mother and child as well as male to female relationships and gender roles, are not taught in Thai sex education programmes. Many Thai teachers admit to not knowing a great deal about sex education because they have not been trained directly in this subject. As a result many of them have inadequate relevant knowledge to convey to their students and they stated that they feel uncomfortable providing sex education (Nimkannon, 2006). Thai teachers are also reported to talk about sexual matters only reluctantly with students because cultural sensitivities still consider sexual topics to be obscene subjects. This problem is made more difficult by the traditional perception that it is inappropriate for male teachers to talk about sex with female students (Smith *et al.*, 2003).

Internet is available resources for sexual information and for various purposes such as for entertainment or for making friends.

In collaboration between the Thai Ministry of Education and the Ministry of Public Health the 'Teenpath' project was established. The project launched a website for teenagers ('www.teenpath.com') with the specific purpose to provide them with age-appropriate sexual information and at the same time to prevent teenagers from drifting onto pornographic websites with their distorted and depersonalised sexuality (Pethkong, 2002). Over 500 schools and vocational institutions all over the country participate in the project, aimed to improve suitable skills and knowledge for teachers to teach students about sexuality. The project focuses on a child-centred learning approach, in which teachers listen to students' ideas. In addition, the training also discusses the teachers' attitudes toward sexuality as these can influence the way in which teachers educate students (Nimkannon, 2006). However, the evaluation of the project by Vuttanont *et al.* (2006) provided unsatisfactory results. Complying with public health policies the schools supported the programme in principle, but it was rarely used with students or to advise teachers. A study of secondary students in urban schools found that students were missing out in sex education programmes. Adolescents want to access explicit information about a wide range of sexual activity. They need the support from adults in their lives to make the choices (Vuttanont *et al.*, 2006)

The effective sex education is possible in a culturally conservative country such as Thailand was demonstrated in a quasi-experimental study with 434 high school students, grades 9, 10, and 11 respectively, in Bangkok. The study evaluated the effectiveness of a culturally sensitive comprehensive sex education programme (CSCSEP). It concluded that

the teenagers who participated in the programme had significantly more likely to delay sexual initiation and lower frequencies of sexual intercourse. However, the contraception use was not significantly different between experiment and control group after follow up of 3 and 6 months. This intervention might make an important contribution to sex education in Thailand because the activities encouraged students to focus on their needs in sexuality and enhance their ability to critically analyse sexual risk situations that they might face (Thato *et al.*, 2008).

Summary

This chapter provides the information of sexual risk behaviours of adolescents, especially teenage pregnancy and unsafe abortion situations, caused by unprotected intercourse. Sex education strategies across countries to promote positive sexual health for teenagers were also described. The latter varied across countries, with some countries having clear sex education policies such as the USA on one hand and, for example the UK on the other, where sex education policies have been developed continually over many years. However, approaches in most western developed countries still have high rates of teenage pregnancy. Abstinences towards sex until marriage is promoted for American teenagers rather than a comprehensive sex education policy but it fails to deliver any significant improvements in decreasing sexual risk behaviours of teenagers. Teenagers might need flexible choices for their sexual decision-making such as in case of the Dutch sex education policy. The low Dutch rates of teenage pregnancy are a clear demonstration that a non-judgemental and positive sex education can work.

Many countries, including Thailand, still have unclear sex education policies. Sex education policy in Thailand is not seen as ‘sex education’, but it is included in the general ‘health education’ curriculum for Thai pupils. The schools are expected to be the main providers of sex education for Thai pupils, but the school sex education does not meet the needs of young people. A wider approach is urgently needed. Parents are expected to act as the primary sources of information for their children, in particular related to sex related issues. The next chapter will therefore focus on parent-child communication about sex related issues.

CHAPTER 3

PARENT-CHILD COMMUNICATION ABOUT SEX

Introduction

In this review of the literature, I focused on papers most closely related to this study. I considered the literature that focused on how parents communicate with their children about sex education matters, before exploring the impact of parental communication on the degree of communication, content, context, timing, and barriers that prevent adverse outcomes for teenagers in relation to sexual behaviours and risk taking. Finally, this section concludes with the identification of gaps in knowledge that provide a basis for this study.

Search strategy

An extensive literature review was conducted to determine the issues related to parent child communication about sex. The three questions used to decide which papers would be selected were:

- How do parents talk about sex with their teenagers?
- What are the issues of parent-child communication about sex?
- How is parent-child communication about sex related to sexual risk behaviours of teenagers?

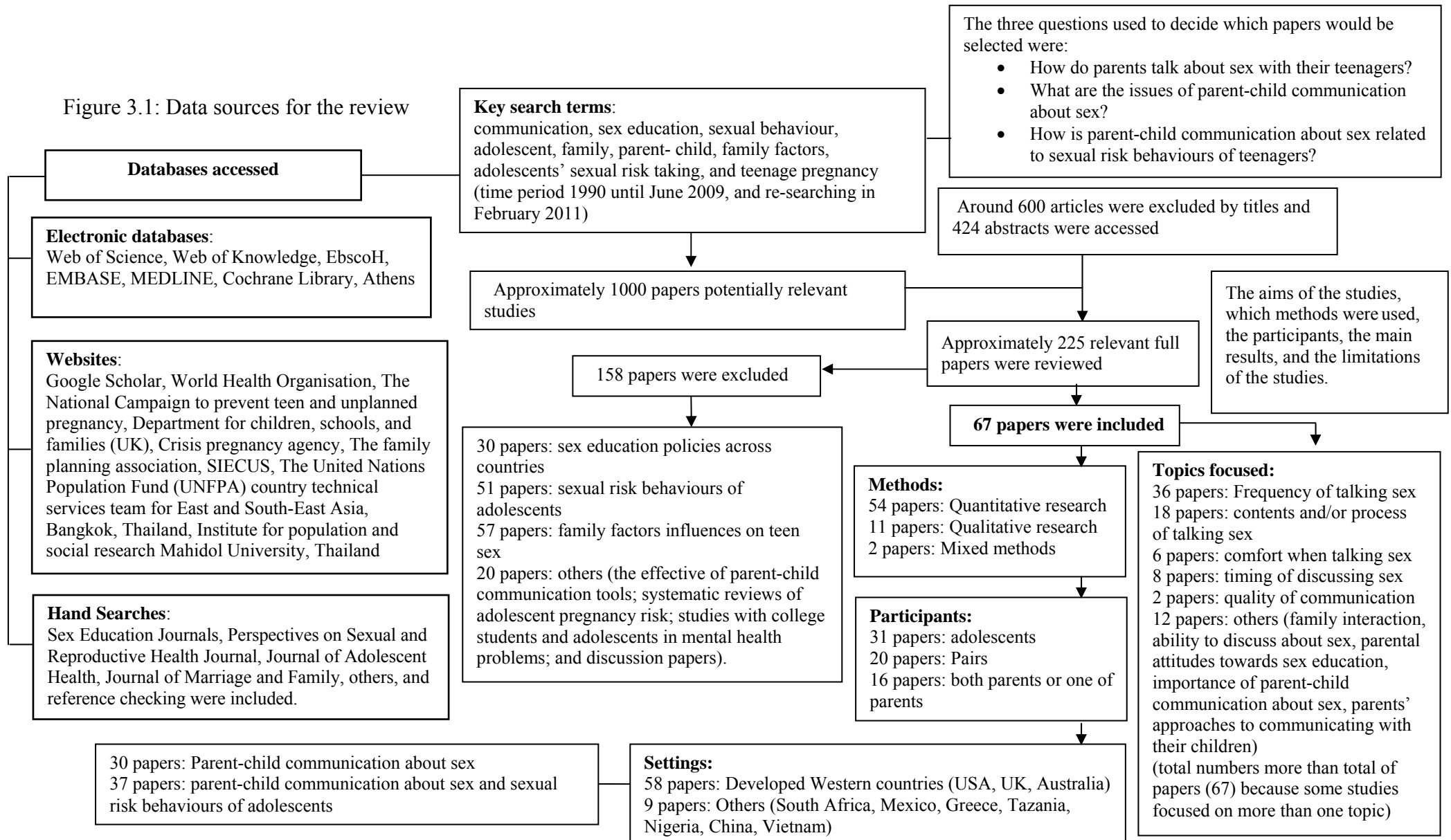
Electronic and evidence-based databases, reference checking, and hand searching were searched for the time period 1990 until June 2009. A further search was conducted in

February 2011 for new literature. The following key search terms were applied:

communication, sex education, sexual behaviours, adolescent, parent, parent-child, family factors, adolescents' risk taking, and teenage pregnancy through the University Metalib included; Web of Science, Web of Knowledge, EbscoH, EMBASE, MEDLINE, Cochrane Library, and Google Scholar.

Because of the broad ranging topic under review, it was decided to include papers containing quantitative, qualitative, and mixed methods. Therefore, papers described cross sectional studies, surveys, longitudinal studies, and qualitative studies. Searches identified more than 1000 potentially relevant studies, of which around 600 articles were excluded by titles and 424 articles were deemed to warrant further examination on the basis of their abstracts. Around 225 relevant full papers written in English language and focused on sex education were reviewed, in terms of the aims of the studies, which methods were used, the participants, the main results, and the limitations of the study. Finally, 67 papers related to parent-child communication about sex and/ or linked to sexual risk behaviours of teenagers met criteria for inclusion in the final review. Around 158 articles were rejected: of these, 30 articles focused on sex education policies across countries; 51 papers focused on sexual risk behaviours of teenagers. A further 57 articles focused on factors, such as family characteristics, parental monitoring, family structure, family relationship, family role and parents' attitudes, and school sex education. Twenty papers focused on reviews of adolescent pregnancy risks, development of communication tools, parent-child communication about sex focused on college students; and a discussion paper of parent-child communication about sex. Full details of the search strategy employed in the review are given in Figure 3.1.

Figure 3.1: Data sources for the review



3.1 Parent-child communication about sex

Within the literature, it is widely accepted that parents appear to be a primary source of sexual information. Parents are expected as primary socialisers of their children, to be involved in the sex education of their children because a fundamental task of parenthood is to transmit values to their children, and beliefs about sex and sexuality reflect religious and personal values of great importance to parents. Many parents assume, or hope that talking to children about values will result in children adopting those values and acting accordingly (Feldman & Rosenthal, 2000).

Good parents are also expected to be responsive to the viewpoints of their children, to listen and to learn as well as to teach. This is considered in the context that sexual risk behaviours are very much in today's society. Moreover, parents of today's teenagers may find it hard to deny young people's involvement in sex. Positive outcomes in much of the research (Somers & Paulson, 2000; Hutchinson, 2002) are associated with parents talking to their children about sex related issues rather than leaving teenagers to learn by themselves. Conveying values and information has always been considered central to the role of parenting to help teenagers to establish individual values and make decisions of sexual health that could protect children from harm (McNeely *et al.*, 2002).

Parents could convey the message about sexuality and sexual behaviours to their teenagers; however, research on the issue of parental communication about sex is inconclusive. This is because various instruments were used to measure the amount and quality of parental communication about sex. In addition, when specific sexual topics were explored, the rate of discussion of individual topics varied substantially (Jaccard *et al.*, 1998). Because the

majority of the studies used self-report of adolescents to parenting practice, there is a risk of bias by lack of data triangulation. Only one third of studies focused on parent child pairs perspectives.

3.2 Studies on parental communication about sex

3.2.1 Communication focused

In total 67 papers focused on parent-child communication about sex, 37 of these papers reported on parent-child communication about sex and sexual risk behaviours of adolescents. Thirty-six papers focused on relatively simple points about the occurrence or frequency of conversations when parents talked about sex to their teenagers.

Eighteen papers focused on the process and contents of discussions between parents and children about sex topics, eight of these papers were qualitative studies, one was mixed methods (Epstein & Ward, 2008), and nine papers were quantitative studies. Six papers addressed the issue of comfort in talking with parents about sex (Hutchinson & Cooney, 1998; Dilorio *et al.*, 1999; Whitaker *et al.*, 1999; Guzman *et al.*, 2003; Meneses *et al.*, 2006; Gallegos *et al.*, 2007).

Eight studies focused on the timing of parent-adolescent discussions about sex. Six of these studies were quantitative studies (Hovell *et al.*, 1994; Miller *et al.*, 1998b; Hutchinson, 2002; Clawson & Reese-Weber, 2003; Atienzo *et al.*, 2009; Beckett *et al.*, 2010) and two studies were qualitative studies (Wamoyi *et al.*, 2010; Wilson *et al.*, 2010).

Two studies focused on quality of communication (Feldman & Rosenthal, 2000; Bersamin *et al.*, 2008). Twelve studies focused on various issues of communication such as on the family interaction (Casper, 1990), maternal ability in discussing sex with their children (Miller & Whitaker, 2001), parental attitudes towards sex education (Rosenthal & Feldman, 1999; Karofsky *et al.*, 2000; Wilson *et al.*, 2010), and barriers and facilities of parent-child communication about sex (Noone & Young, 2010; Wilson and Koo, 2010). Few studies considered both frequency and quality of communication about sex (Feldman & Rosenthal, 2000; McNeely *et al.*, 2002). The details of all studies included are demonstrated in Appendix B.

Fifty-four papers described quantitative research; particularly surveys. Eleven papers were qualitative in approach, and two were mixed methods. Eighty-seven percent (58 papers) had been undertaken in Western developed countries, 90% of these were studied in the United States of America (52 papers). A few studies explored impact of parent-child communication about sex in other countries. For examples, one study collected data with teenagers in China (Wang *et al.*, 2007); Kirana *et al.* (2007) explored the attitudes of Greek parents concerning the provision of sex education. Phetla *et al.* (2008) collected data with mothers in rural South Africa; Trinh *et al.* (2009) explored content, context, and barriers of parent-child communication about sex by using focus groups and interviews for pairs in Vietnam (Trinh *et al.*, 2009). The most recent ethnographic research in Tanzania, explored parent-child communication in families with pairs by using observation, focus groups and interviews (Wamoyi *et al.*, 2010).

3.2.2 Quality of quantitative methods

The quality of methodology of the included quantitative studies varies considerably. The studies on this subject varied in characteristics of samples, and methods. Most studies assessed parent-teen talking about sex by self-reported means such as interviews or other types of survey. Only Lefkowitz *et al.* (2000; 2002) had collected observational data to reveal the real-life conversations about sex related issues between mothers and their children.

Samplings and participants

Sampling issues limited the ability to transfer or generalise because most studies reported on very small groups. Participants were not selected at random therefore could not be assumed as representative to a target population. The studies in sensitive sexual issues were more likely to select respondents than were studies of less sensitive topics (Hovell *et al.*, 1994). Only few studies were large scale and could be said to be representative to the national or regional population (Hutchinson, 2002; McNeely *et al.*, 2002; Huebner & Howell, 2003).

Twenty-nine of the papers describing quantitative studies collected data with adolescent groups. Sixteen studies collected data with pairs. Only nine papers collected data with parents. Most studies included White families representing the majority of the sample, although frequently African-Americans represented the next largest group in the samples.

Most studies focused on adolescents of both sexes in early and middle adolescence. Seven studies focused on participants more than 17 years old, three of these studies focused on teenagers of both sexes, one study focused on men, 18-24 years (Epstein & Ward, 2008).

Of a total 54 quantitative studies, few studies focused on sexually active adolescents, two of these studies by Hutchinson (1999) focused on women aged 17-26 years and Hutchinson *et al.* (2003) focused on females aged 12-19 years. Miller *et al.* (1998b) focused on sexually active teenagers of both sexes (14-17 years). Atienzo *et al.* (2009) focused on sexually active Mexican teenagers of the first year secondary schools. The parent-child communication about sex focused on the topics of information related to sexual experiences, condom use, sexual partners, and STIs/ HIV and AIDS.

Instruments

Various instruments were established and used to assess parental communication about sex. A number of studies about frequency of parent-adolescent communication designed instruments that covered wider variety of general communication topics and were less focused on specific topics of sexual related issues (Feldman & Rosenthal, 2000; Karofsky *et al.*, 2000; Hutchinson, 2002; Huebner & Howell, 2003; Akinwale *et al.*, 2009).

The instruments: frequency of talking about sex

The measures of frequency of parent-child communication about sex generally were score rating four to five point scales ranging from one (never or rarely) to four or five (always). These measures mostly focused on the perception of adolescents by self-report about the frequency of discussing sex with their parents where higher score represents higher frequency of communication.

Asking parents especially mothers and teenagers how much they talk about sex does not result in meaningful data because it does not provide information about how participants define sex and does not help us to understand attitudes of parents towards broad based

sexual topics. Some individuals may be very narrow in their definitions, only including sexual intercourse. Others may include a wide array of issues, including pubertal development, STIs, and relationships. Some parents might talk with their children about sex frequently but this takes the form of counselling against involvement in sexual relationships. Therefore, it is important to understand not only the frequency but also the content of these conversations.

Only a few studies used yes/ no or ordinal measurement scales (Hutchinson *et al.*, 2003; Chung *et al.*, 2007). Hutchinson *et al.* (2003) explored the relationship between mother-daughter communication about sex and sexual risk behaviours with 219 sexually experienced female adolescents, 12 to 19 years old. Frequency and quality of mother-daughter sexual risk communication were measured by using yes/ no questions on five sex-related topics included 'sexual intercourse, birth control, AIDS, sexually transmitted diseases, and condoms' (Hutchinson, *et al.*, 2003, page 101). Each item was scored zero for 'no' and one for 'yes' and found that measurements provided less sensitivity and the ability to detect the effects of parent-child communication on sexual behaviours because yes-no questions could not distinguish between having experienced one conversation, and talking about these issues more frequently. This demonstrated that frequency alone is not a measure of quality and consideration should be given to specific topics and how recently communication took place (Lefkowitz *et al.*, 2002).

The topics related to sex that previous studies have focussed on are varied. For example, some studies focused on the physical aspects of sex, such as Baumeister *et al.* (1995) who focused on how much information parents give to teenagers about menstruation, sexually transmitted diseases, sexual intercourse, body parts related to sex; and birth control, and

Clawson and Reese-Weber (2003) added further issues of fertilisation, prostitution, and homosexuality. Jaccard *et al.* (1996) focused on maternal discussions about birth control and sexual activity and contraception use of teenagers. A large group of participants, 751 black teenagers and their mothers were recruited in pairs and were asked about how much the mothers talked about birth control: discussions about birth control in general; importance of using birth control; and birth control methods with the children.

The same study reported in another paper, Jaccard *et al.* (1998) focused emotional and interpersonal consequences of sexuality related to frequency of discussion of the sex related topics. The researchers asked 745 unmarried African American teenagers, 14-17 years old about 'how much has your mothers talked to you about the reasons for not having sexual intercourse; getting a bad reputation among my friends; regretting not having waited until I was married; how my mother would punish me if she found out' (Jaccard *et al.*, 1998, page 255). Rosenthal and Feldman (1999) collected data with 298 Australian teenagers, 16 years old, about the frequency with which their parents discussed sex related issues in four domains: development and societal concerns, sexual safety, experiencing sex, and solitary sexual activity. Feldman and Rosenthal (2000) extended their focus on both frequency and quality of sex-related issues between parents and adolescents. Both parents and adolescents participated in the survey. The communication issues covered personal and interpersonal, factual and psychological topics, including puberty, safe sex, sexual experiences, and solitary sex. Interestingly, they correlated the amount of parent child communication against various topics and found that the global communication measure correlated other measures. The findings showed mothers were involved in more frequent communication about sex related issues than fathers. Whereas, no differences were found in the male teenagers evaluated of communication from mothers and fathers.

A number of studies developed measurements of parent-child communication about sex. Hutchinson and Cooney (1998) established the parent-child communication tool 'parent teen sexual risk communication scales' (PTSRC). This measurement was used for women, 19-20 years of age, focusing on information about how much mothers talked about sexual intercourse, pregnancy, fertilisation, menstruation, STIs/ HIV, abortion, homosexuality, birth control, peer pressure, and sexual pressure from partners. Hutchinson (1999) again used the PTSRC instrument with sexually active women (aged 17-26 years), focused specifically on issues relating to STIs. Then, Hutchinson (2002) extended his work by using the PTSRC instrument with ethnically diverse samples of young women, including samples from nonurban areas, not only focused on mother-daughter communication about sex but also father-daughter communication.

The Sex-Related Communication Scale (SRCS) was one of the instruments of amount of parental communication about sex, established by Lehr *et al.* (2000), which aimed to examine the relationship between parent-teen communication about sex and sexual risk behaviours of 732 African American sexually active participants aged 18 to 25 years old. The instrument was composed of 10 items and rated on 6-point scales.

The PTSRC and SRCS instruments showed high quality ($\alpha > 0.08$) on testing meaning that they are valid and reliable. However, these instruments might be useful for only sexually active young people but not be generalisable to other groups such as young teenagers or those who have no experiences in sex.

Some studies did not state the quality of the parent-child communication instruments they had used. For examples, Aspy *et al.* (2007, page 452) surveyed 1083 teenagers, 13 to 17

years old, and measured frequency of family communication about sex related issues in five topics: ‘adult role models support abstinence; right and wrong in sexual behaviour; delaying sexual activity; birth control; and STD prevention’. Kirana *et al.* (2007) explored attitudes of Greek parents about sex education but did not provide any test of validity and reliability of instruments. Atienzo *et al.* (2009) used 14 topics and asked sexually active Mexican teenagers about frequency of talking sex with their parents. The researchers did not provide any details of how the instrument was established and why 12 statements were suitable for the study. In addition, Akinwale *et al.* (2009) asked Nigerian parents about the frequency of talking about general and sex related issues with their teenagers in nine topics. The researchers did not provide any reasons why the instrument was appropriate of the study and the reliability of the instrument was not clarified. Therefore, it is difficult to judge the quality of the research.

The instruments: comfort of talking about sex

Six papers focused on the topic of how ‘comfortable’ was the parent-child communication about sex. All studies used a survey method and three of these papers focused on teenagers (Hutchinson & Cooney, 1998; Whitaker *et al.*, 1999; Guzman *et al.*, 2003). Two studies focused on pairs (Dilorio *et al.*, 1999; Gallegos *et al.*, 2007), and the last one by Menese *et al.* (2006), aimed to compare how comfortable ethnic groups of mothers were when talking about sex with their children. Most studies measured the frequency and comfort of parent-child communication about sex related topics, and examined the relationship between parent-child sexual communication and sexual attitudes and behaviours. For example, a survey with 1039 Latino adolescents, 8th to 9th grades, assessed the perceptions of teenagers about how frequently parents talked about sex with them in a five point Likert scale ranging from ‘never’ to ‘always’. In addition, they measured how comfortable

teenagers felt when they discussed sex topics with their parents with a four-point Likert scale ranging from 'uncomfortable' to 'comfortable' (Guzman *et al.*, 2003). Dilorio *et al.* (1999) measured teenagers' comfort in talking to their parents about various topics. Their approach was unique because they asked respondents to rate the level of comfort they felt in discussing sex with the items rated from 1 not comfortable at all, to 5 very comfortable. They compared comfort across sexual topics, which each contained three items. The 14 topics ranged from the menstrual cycle, to dating and behaviours to becoming a parent. The researcher gave details of how the instrument was established and provided the quality of instrument which was tested using Cronbach's alpha and scored ,alpha =0.80. This indicates a high degree of reliability and internal consistency of the instrument.

Another survey by Gallegos *et al.* (2007) applied and modified the instrument of Dilorio *et al.* (1999) from 14 items to nine items in a study of Mexican parents and adolescents but the researcher did not clarify how these nine items were chosen. Similarly Meneses *et al.* (2006) used five statements of 'discomfort index' to compare the levels of maternal comfort in talking sex with their daughters in different ethnic groups. The researcher provided only the numbers of statements but the process of development of the instrument was inadequately explained.

The instruments: content of talking about sex

Nine quantitative research papers focused on the contents of parent-child communication about sex. Six papers focused on parent-child pairs. A number of researchers used a range of different topics to assess whether or not parents had ever discussed the topic with their children. For example, ten items of content and ten items of process of communication between mother and adolescents were established by Miller *et al.* (1998a), with the aim to

measure which sex-related topics were discussed and how their content was transmitted. The same research team used the instruments with various groups of participants. For examples, Dutra *et al.* (1999) used the content and process instruments to measure not only mothers and teenagers but also fathers' communication, and Whitaker *et al.* (1999) used these instruments to measure the influences of parent-child communication about sex in content and process with sexual risk behaviours in sexually active young people.

Dilorio *et al.* (1999) established the interview schedule, included 14 sex-related topics to ask mothers and teenagers, aged 13-15 years, about whether they had discussed each topic together. The instrument was established based on existing literature and focus group discussions. Kapungu *et al.* (2010) used the instrument, established by Dilorio *et al.* (1999) with mothers and adolescents to examine gender differences in the content of adolescent communication about sexual issues, but included 17 topics. It was suitable for the researchers to apply the instrument because both studies focused on African-American groups. The findings might help in extending the existing knowledge of content of African-American families' communication about sex related issues.

The instruments: timing of talking sex

Six papers reporting quantitative studies focused on the issue of timing of parent-child communication about sex. Five of these papers collected data in the USA, only Atienzo *et al.* (2009) collected data with Mexican teenagers who were in the first year of secondary school. Two of these studies focused on older teenagers (Hutchinson, 2002; Clawson & Reese-Weber, 2003). Hovell *et al.* (1994) and Miller *et al.* (1998b) focused on teenagers aged 14-17 years, Only Beckett *et al.* (2010) collected data with parent-child pairs. All

studies aimed to examine the influence of timing of parent-child communication about sex and the sexual risk taking.

In measuring timing of parent-child communication about sex, it seems that most studies used timing of discussions compared to the time of sexual initiation. For example, Hutchinson (2002, page 202) used one yes/ no question asking about 'did your parents talk to you about sex before you started having sex'. While Clawson and Reese-Weber (2003) used open-ended questions to ask teenagers the age that parents first discussed nine sexual topics, then the time compared to the age of sexual initiation. If parents discussed sex-related topics before the teenagers began having sex the score would be 'report on time', but if parents did after the teenagers had started having sex the score would 'report off time'. Atienzo *et al.* (2009) applied the procedure developed by Clawson and Reese-Weber (2003, page 113) to ask sexually active Mexican teenagers, in the first year of secondary school about 'at what age did your parents talk to you for the first time about sexual relations?' and 'at what age did you have your sexual relations?' The study aimed to explore whether the timing of communication between parents and teenagers occurred prior to or after the teenagers had sexual initiation. Miller *et al.* (1998b) measured the age that teenagers and their mothers first discussed condoms. Four choices of time discussions were provided: 'prior to sexual initiation, during the year of sexual initiation, after the year of sexual initiation, and never discussed. The researchers had the aim to use the time compared with patterns of condom use. Hovell *et al.* (1994) used timing of communication as one of family variables influences for sexual risk behaviours of teenagers. The researchers focused on the time the family had talked about sex in the past month related to sexual risk behaviours of teenagers, but the researcher did not give any details of the instrument. Beckett *et al.* (2010) used 24 topics of sex related issues asking respondents

about timing of discussions of each between parents and teenagers either before or after sexual initiation.

The instruments: quality of talking about sex

It is important to measure not only the frequency of parent-child communication but also the quality of discussion. Two quantitative research studies focused on the quality of parent-child communication about sex, and different measurements were used to assess quality of communication about sexuality. Feldman and Rosenthal (2000) used the 'quality of sex-related communication' measurement, included 33 items to assess the way parents communicated about sex with their children from the teenagers' perspectives. The researchers did not refer to the validity or reliability of the instrument. While Bersamin *et al.* (2008, page 102) used 3 statements to assess the teenagers' perspectives of the quality of overall parent-child communication about sex. The 3 items included: 'my mother/ father and I can talk about almost things; I find it is easy to discuss problems with my mother/ father; when I ask questions, I get honest answers from my mother/ father'. The instruments were tested for reliability which were tested using Cronbach's alpha and score for reports about mothers alpha = 0.78, but for reports about fathers alpha = 0.52. These indicated a low degree of reliability of the reports about fathers. However, the researchers did not clarify about how to improve the instrument.

The quantitative instruments measured the frequency, comfort, content, process, and timing of parent-child communication about sex using mainly self-report measures. Therefore, it appears that the researchers developed the measurements of parent-child communication about sex in various ways. In the simplest form, researchers examined the frequency of communication. In addition, a number of studies considered multiple

perspectives within the same topics and focused on broad ranking issues of communication. Interestingly, some researchers have tried to move away from the self report methods and use more innovative methodology such as videotaped conversations (Lefkowitz *et al.*, 2000), however these too have disadvantages if the conversations are based in a lab setting.

3.2.3 Quality of qualitative methods

Most studies employed quantitative approaches whereas, the few qualitative studies (11 papers) on the subject of parent-child communication about sex varied in the method of data collection and analysis. Nearly all of these qualitative studies have relied on focus groups or interviews. For examples, four qualitative studies collected data with parents or caregivers by using in-depth interviews (Rosenthal *et al.*, 1998; Walker, 2001; Hyde *et al.*, 2009; Noone & Young, 2010); and three reports with focus groups (Walker *et al.*, 2008; Cox *et al.*, 2010; Wilson *et al.*, 2010). While Guilamo-Ramos *et al* (2006a) used focus groups with mother- adolescent pairs; Trinh *et al.* (2009) used focus groups and in-depth interviews with parents and teenagers of both sexes, and aimed to explore content, contexts, and barriers of parent-child communication about sex in Vietnam. The limitation of these methods is that participants might present their perspectives of parent-child communication in a way that does not represent what actually occurs. Therefore, Pluhar and Kuriloff (2004) collected data with mother-daughter pairs, and aimed to explore the process of communication using qualitative analysis of observational data. It describes the use of a phenomenological approach, however the research was conducted using laboratory conditions. The pairs were placed in a room with a topic to discuss and the subsequent conversation recorded. This is neither a true representation of phenomenology nor is it really a naturally occurring conversation. Naturally occurring speech cannot be expected in

a lab setting where the topics are set by the researchers. Although this is an attempt to explore these conversations as they occur rather than analyse them through retrospective recall by one of the parties involved, it is not a good representation of naturalistic enquiry methods. Wamoyi *et al.* (2010) employed ethnographic research in Tanzania, which focused on participants aged 14-24 years, and their parents. Data were collected using eight weeks of participant observation, in-depth interviews and focus group discussions, aimed at understanding the pattern of parent-child communication about sex. Two researchers lived in villagers' households and involved themselves in the daily activities with the young people in the setting. The data were presented using the findings from focus groups and in depth interviews only. The observational data were used to add context to the findings. The researchers in reporting the study, did not discuss the strengths and weakness of each method, or explore how each complemented the other.

Two studies used key questions to encourage discussions of low-income American mothers participate in focus groups (Cox *et al.*, 2010) and Noone and Young (2010) used a semi structured interview guide with rural American mothers in interviews. Both studies developed the key questions based on the critical components of parent-child communication about sex, established by Jaccard *et al.* (1998; 2002). The five components including 'characteristics of parents and teenagers; the message that is conveyed or the content; the way the message is conveyed, and the context in which the message is conveyed' (Noone & Young, 2010, page 28).

The study by Guilamo-Ramos *et al.* (2006a) and Wilson *et al.* (2010) clarified the method they had used. They provide reasonable descriptions of why to collect data by using focus groups, and the roles of moderators in focus groups were also described in rich detail that

would assure readers of the quality of the research. In addition, Cox *et al.* (2010) described how to do the focus groups systematically and addressed the key questions that they used in the focus groups. It was important for the moderator to maintain the consistency of discussions. In making judgements about qualitative methods of data collection it is important to be able to have full descriptions of methods. If the role of researchers is inadequately described, it makes it difficult to judge the credibility of the findings (Rosenthal *et al.*, 1998).

Noone and Young (2010), explored rural mothers' beliefs, experiences, and the perceptions of the parenting role in talking with daughters about contraception. The researchers provided rich details about the development of the semi-structure interview guide, steps of data analysis, and the trustworthiness of the study.

Trinh *et al.* (2009) employed focus groups and in-depth interviews for data collection with 45 parents and teenagers to examine parent-adolescent communication on sexual matters in content, contexts, and barriers. However, they did not clarify how these different perspectives helped answer the research questions, nor how the different data sets were analysed and synthesised to inform the findings since the process of analysis was inadequately described. All conversations were recorded, transcribed verbatim, coded using QSR NVivo program (Trinh *et al.*, 2009).

A variety of approaches were used by different researchers to analyse the data in the various studies. An extensive semi-structured interview with 30 mothers of 16 year old teenagers aimed to explore communication styles, frequency of discussing sex related issues, and comfort levels of discussing sex. Inductive analysis was used to establish a

typology of parental communication patterns (Rosenthal *et al.*, 1998). Hyde *et al.* (2009) used in-depth interviews with 39 parents to explore the diverse range of approaches that parents used in communicating with their teenagers. The researchers provided reasonably rich details of the method, rigour, ethical issues and findings.

A number of studies clarified the rigour of their studies in various ways. Walker (2001) and Pluhar and Kuriloff (2004) are examples of study authors who clarified the rigour of the studies. Both studies used grounded theory to explore how parents communicate with their children about sex. They explained how key themes were established and internal validity of the study was tested by respondent validation whereby the researchers gave opportunities for parent participants to check their responses. This member checking increased the internal validity of the study. Two coders and regular meeting to discuss transcripts and coding structures between authors were the ways that the researchers in such studies stated as the ways to ensure the reliability of the study. Additionally, Wilson *et al.* (2010) described the process of comparison and discussion of the codes between authors which was very clear and systematic. Wamoyi *et al.* (2010) used ethnography and thematic analysis however; they did not provide any information to assure the reader of rigour in their study.

3.3 The findings on parental communication about sex

Research findings of parental communication about sex were mixed and inconclusive. The attempts to synthesise findings is complicated by different research methods, wide varied measurements of parent- adolescent communication, and differing perceptions of various

groups. The inconsistent and contradictory findings might result from a lack of standard measurements across studies.

Existing studies on parent-child communication about sex have several limitations. First, a number of studies have been undertaken with white teenagers. Further, the findings of the few studies which focused on the ethnic groups found inconsistent findings. Hovell *et al.* (1994) and Hutchinson (2002) compared the amount of parent-child communication about sex in ethnic groups and found that Latino families communicate less in general and in sex-specific issues than families from other ethnic groups.

In addition, a number of studies of parent-child communication about sex have focused not only on specific sexual topics, but also on global communication (Feldman & Rosenthal, 2000). When specific sexual topics were addressed, however the rates of discussion of each individual topic varied widely (Jaccard *et al.*, 1998).

Moreover, parent-child communication often has been examined from self-reports generally from the teenagers' perspective only. Even when the research has focused on pairs or parental perspectives, agreement or disagreement between reports of such communication has rarely been addressed. Many papers that focused on how teenagers' and parents' report conversations, found that most mothers believed that they discussed sex more than their teenagers perceived (Chung *et al.*, 2007).

Finally, a number of studies have focused on the frequency and whether any discussion about sex related issues have taken place. The existing knowledge found the communication between parents and their children would occur only if teenagers viewed

that communication with parents was easy. Furthermore, the communication process differed by who is involved in the discussions, more studies explored parent daughter, especially mother daughter discussions than parent son conversations.

In exploring the findings of the papers on parent child communication I have divided them into six broad themes to enable discussion. The themes I found across the range of papers are: *degree of parental communication; content of parental communication; context of parental communication about sex; gender of parents and teenagers; timing of parental communication about sex; and barriers of parental communication about sex.*

3.3.1 Degree of parental communication

Although many studies across countries indicated that parents are the first providers of sex education to their children, parents appeared unable to pass sexual information to their children (Walker, 2001). A number of studies revealed that parents rarely discussed sex related issues with their teenagers (Hutchinson & Cooney, 1998; Rosenthal & Feldman, 1999; Feldman & Rosenthal, 2000; Wamoyi *et al.*, 2010). Frequency of parent-child communication about sexual matters also varies widely (Eisenberg *et al.*, 2006). According to Chung *et al.* (2007) who reported a study of 120 Filipino-American, parent-child pairs about frequency of communication with their parents, only 22 percent of adolescents reported regularly discussing sex with parents.

A number of studies reported that mothers were still the primary communicator with teenagers regarding sexual topics. Teenagers of both sexes were more likely never to have discussed sex with fathers (69%) than with mothers (47%) (Guzman *et al.*, 2003). A study by Rosenthal and Feldman (1999) with 298 16 year olds (156 boys and 142 girls), found

that 94% of girls reported they had never talked with their fathers about sexual desire, and 76% had never talked about this issue with mothers. Most boys reported their fathers had never talked about sex in 19 out of 20 topics, and girls reported in the same way for 15 topics. On the other hand, boys reported their mothers had never discussed 15 of 20 topics and 50% of girls' stated that their mothers had never talked about 7 in 20 topics.

Teenagers appeared to be uncomfortable and embarrassed having conversations about sex with their mothers. They expressed fear of parental punishment and anger about the fact that they were sexually active (Guilamo-Ramos *et al.*, 2006a). They reported that they wanted to talk to their parents on sex-related topics. A qualitative study which collected data by using focus groups with 78 caregivers of grades 5-6 students in Washington confirmed consistent findings that parents recognised they should be the primary source of sex education for their children, but they feel uncomfortable, unprepared to discuss sex with their children. They did not know how to talk because they had experienced no training on the subject. Parents agreed that many faced difficulties such as working long hours, lacking cultural support for their parental roles, and being poor role models (Walker *et al.*, 2008). Moreover, parents were embarrassed to discuss sexual intercourse and contraception with their teenagers.

A study with Australian mothers reported that their teenagers were impassive in discussions with them, not only about sexual topics but also on a range of topics (Rosenthal *et al.*, 1998). Similarly, UK parents had not planned to discuss sex with their teenagers and some parents found that they relied on their children to start discussing sex but they found that their children never asked questions (Walker, 2001).

3.3.2 Content of parental communication

Most studies exploring the content of discussions about sex took place in Western developed countries, especially in the USA, UK, and Australia. A broad range of topics was considered to be a relevant part of the parent child communication about sex. A number of researchers focused on topics related to delaying sexual initiation to protect children from the consequences of unprotected early sexual activity (Guilamo-Ramos *et al.*, 2006a).

The priorities of topics, which were selected to discuss together between parents and their teenagers, varied. However, much work of parent-teen communication about sex focused on the topics of abstinence, dating and sexual risk behaviours, menstruation, birth control, STIs and AIDS, and pregnancy (Feldman & Rosenthal, 2000; Lefkowitz *et al.*, 2003).

Parents usually warn their children not to engage in premarital sex. However, generally the content of parental communication with their children differed between daughters and sons. Parents tended to be more protective and focused on abstinent sex, emphasising the negative outcomes of sexual experiences for girls but for boys parents often addressed the issues related to condom use, protection or the consequences of sexually transmitted infection (Dilorio *et al.*, 1999; Pluhar & Kuriloff, 2004). As in previous studies, Kapungu *et al.* (2010) indicated that parental messages to their girls were often more protective as well. Epstein and Ward (2008) reported a study with 286 male undergraduate students in the USA and found that 27% parents frequently warned their male teenagers not to engage in premarital sex and 29% of them recalled that parents often encouraged them to protect themselves by using contraception when having sex. A study in Vietnam showed that most parents perceived that abstinence was the best way to avoid teenage pregnancy for their

girls. However, parents had limited discussions about sex in relation to warning teenagers about negative consequence of premarital sex such as ‘sexual morality, pregnancy and abortion, and HIV/ AIDS’ (Trinh *et al.*, 2009, page 374).

According to Guilamo-Ramos *et al.* (2007) the top three most frequently discussed sex related topics between mothers and teenagers in middle schools were about getting HIV, STIs, and having sex and moral aspects. The three least discussed were the issues of losing respect of one’s partner, results of engaging in sex, and feeling guilty. An interview approach with 907 Hispanic and black teenagers, aged 14 to 16 years old, found that the topics of condoms, reproduction, pressure to have sex and time for sexual initiation and choosing sex partners were most frequently discussed after HIV or AIDS and STIs. The least frequently discussed were masturbation, physical and sexual development (Miller *et al.*, 1998a). One of telephone surveys with 1069 parents in the USA found that approximately 50% of parents were likely to have talked about consequences of pregnancy and 41% of parents were talking a great deal about the dangers of sexually transmitted diseases (Eisenberg *et al.*, 2006). Australian mothers generally communicated focusing on the topics of ‘physical development, dangers, and reproduction’ (Rosenthal *et al.*, 1998, page 733). In addition, they focused on satisfaction of sex, sexual needs, and unwanted sexual pressure. The topics about ‘practical advice, psychological issues, and non-penetrative sex’ were not (Rosenthal *et al.*, 1998, page 734).

Given the high prevalence of HIV it is not surprisingly that rural South African parents talked with their teenagers about how to reduce risks with 98% of mother participants discussing condom use, and 58% talking about HIV testing (Phetla *et al.*, 2008). Similarly, to Wamoyi *et al.* (2010), Tanzanian parents demonstrated that HIV/AIDS was the only

thing that they often talked about with their children because it was considered as shameful and was a disease associated with extreme suffering.

Two studies of attitudes and perceptions of parents about the content of discussions on sex found that Greek parents perceived the most important topic for parental sex education to their teenagers was AIDS and STIs (37%), the second priority was contraception, and the third was relationships. The topic of abortion was the fourth priority (Kirana *et al.*, 2007). Nigerian parents perceived that the most important topic that parents should provide to their children was life and relationship skills, the second priority was sexual health such as sexually transmitted infections, and the third priority was personal hygiene (Akinwale *et al.*, 2009).

3.3.3 Context of parental communication about sex

Studies have shown that the context or the ways that parents convey sexual information to their teenagers has an influence on the receptiveness of adolescents. Lower levels of sexual risk behaviours of adolescents were associated with greater levels of teenagers' perception of parental openness, comfort, and confidence in conversation about sex related matters (Whitaker *et al.*, 1999; Guilamo-Ramos *et al.*, 2006b). There was a wide range of contexts in which parents discussed sex.

Pistella *et al.* (1999, page 312) focused on 416 adolescents, aged up to 19 years, teenagers desired their parents to be open when talking about sexual matters and 'parents should treat them (teen) as an adult and not scream at them'. Although, parents know the importance of open communication, it is difficult for them to stay calm and open due to their concern about the sexual behaviours of their teenagers (Guilamo-Ramos *et al.*,

2006a). Confirming these findings, Trinh *et al.* (2009) reported that Vietnamese parents were too strict and often displayed anger when teens asked about sexual topics. Compared to Cox *et al.* (2010), several mothers in focus groups indicated that they keep the line of communication open with their children. They spoke of the ways that they showed the awareness of the teenagers' lives by asking them more general questions about their social activity, or peer groups not only focused on sexual topics.

Greater levels of parental trust appear to be related to greater parent-child communication about sex and lower levels of sexual risk behaviours of adolescents. Teenagers feel more comfortable to get advice and converse with parents who appear to trust them (Guilamo-Ramos *et al.*, 2006b). Vietnamese teenagers expressed their need for a harmonious parent-adolescent relationship that would enable trust between each other and that could help teenagers feel comfortable in discussions about sex (Trinh *et al.*, 2009). Furthermore, parental accessibility is important to promote discussing sex between parents and teenagers. If teenagers perceived that it is difficult to find time to talk, it would appear that there are higher rates of sexual behaviours because of lower levels of communication (Guilamo-Ramos *et al.*, 2006b).

Australian mothers reported that they discuss sex with their teenagers after school in the kitchen where the mothers had household activities, while watching TV together, or during travelling time (Rosenthal *et al.*, 1998). Rural American mothers reported that they consider about the right time to talk about sex with their children at night before bed times or in the car or when their teenagers were in groups of their friends that might help teenagers feel less embarrassment (Noone and Young, 2010). In comparison a study in Vietnam found that most mothers usually use examples of girls who became involved in

premarital sex, pregnancy, or abortion in their local community to warn their teenagers to avoid premarital sex. The different context of culture might make parents focus on different topics of sexual matters such as in Vietnam, premarital sex is still a sensitive issue, and in South Africa fear of AIDs focuses the topics of conversation when parents and children discuss sex topics.

Some mothers felt that discussing sexual topics was too difficult and regarded the provision of factual information in books or other reading materials as more appropriate (Cox *et al.*, 2010).

3.3.4 Gender of parents

Mothers and fathers have equal responsibility for communicating with their children about sexuality (Lefkowitz *et al.*, 2002). However, it was clear that in nearly all families the main responsibility for talking about sex lies with the mothers (Walker *et al.*, 2008; Kapungu *et al.*, 2010; Wilson & Koo, 2010). A number of studies demonstrated that mothers are significantly more involved than fathers in the sex education of their children especially when talking with their daughters (Feldman & Rosenthal, 2000; Walker, 2001; Hutchinson, 2002; McNeely *et al.*, 2002; Walker, 2004; Walker *et al.*, 2008; Kapungu *et al.*, 2010). Teenagers reported talking about sex significantly more with their mothers than with their fathers, (Guzman *et al.*, 2003). Wilson and Koo (2010) focused on 829 fathers and 1113 mothers of 10-14 years teenagers. The findings showed mothers talked about sexual topics with their daughters more than with sons. Fathers talked with their daughters more than with sons in one topic 'dating and relationship'.

Daughters often evaluated mothers more positively than did sons, and most female teenagers reported that they had higher levels of frequency of communication on sex-related issues with mothers than did sons (Hutchinson & Cooney, 1998; Somers & Paulson, 2000; Guzman *et al.*, 2003; Raffaelli & Green, 2003). This is consistent with findings in China that 33-38% of women had discussed sex with their mothers whereas; only 2% to 8% of men had these types of discussions with their mothers (Wang *et al.*, 2007). Over 55% of the US women, aged 19 to 20 years reported discussing at least one topic related to sex with their mothers; whereas only 20% of them reported that they had talked to their fathers (Hutchinson & Cooney, 1998).

According to Bersamin *et al.* (2008) 887 White teenage participants, 12-16 years, who participated by using two separate scales of quality of overall parent-child communication and parent-child communication about sex found that they reported higher average scores of quality of parent-child communication with mothers ($M = 2.97$, $SD = .73$) than fathers ($M = 2.65$, $SD = .83$). Whereas, Dutra *et al.* (1999) focused on 907 black and Hispanic teenagers, aged 14-16 years found boys reported equal communication with mothers and fathers in content and process of sexual issues.

Some studies demonstrated that parents had higher frequency scores of talking about sex-related issues than adolescents' perceived (Chung *et al.*, 2007). Daughters reported more discomfort talking about sex than did their mothers (Pluhar & Kuriloff, 2004). Parents often evaluated themselves more positively than did their teenagers (Feldman & Rosenthal, 2000; Miller *et al.*, 2009). In contrast, a study with Mexican parents and teenagers (14 to 17 years old) found that parents reported that they talked to their teenagers less about sex than their teenagers perceived (Gallegos *et al.*, 2007). Parents and adolescents revealed a

strong same gender communication about sexual matters (Hovell *et al.*, 1994; Guilamo-Ramos *et al.*, 2006a; Powell, 2008). Mothers generally recognised that fathers should take action as providers of sex education to their sons (Walker, 2001). Hovell *et al.* (1994) who interviewed 384 Latino and White American teenagers found that teenagers of both sexes reported less communication about sex with their parents but they had higher mean scores discussing sex with the same-sex parents rather than discussing sex with parents of the opposite sex. The scale from 0 (very uncomfortable) to 4 (very comfortable) and teenagers reported a mean score 1.2, and female teenagers reported a mean score 2.1 regarding discussing sex with mothers. In contrast, male teenagers reported the mean score 2.1, and female teenagers reported .80 regarding communication about sex with fathers.

According to Guilamo-Ramos *et al.* (2006a), mothers perceived fathers should be the first one to have communication about sex with their sons. On the other hand, mothers should discuss sexual matters with daughters because mothers were more concerned with the consequences of premarital sex, and pregnancy outcomes for girls. Powell's (2008) study reported female teenagers tended to get advice from their mothers and male teenagers preferred to use fathers. Wamoyi *et al.* (2010) indicated that most Tanzanian fathers expected their wives to talk about avoiding unplanned pregnancy with their daughters. Only few mothers talked about prevention of pregnancy with their daughters but most mothers explained their expectation that their daughters should protect themselves from unplanned pregnancies. Lehr *et al.* (2000) showed contrasting findings that young men reported overall levels of discussing sex with parents, both mothers and fathers somewhat higher than young women, and young men reported same levels of openness of communication with fathers and mothers. Kapungu *et al.* (2010) reported fathers were

limited in discussing sex with their children, and there were no significant differences of discussions about sex with their male and female teenagers.

3.3.5 Timing of parental communication about sex

A number of studies indicated that parents started discussing sex with their teenagers after their teenagers had become sexually active. Parents might wait to talk with their teenagers about sexual matters until their teenagers are in a romantic relationship (Eisenberg *et al.*, 2006). Some parents believed that when their children are at high school should be an appropriate age to begin to talk about sex, whereas sexual activities may begin in early adolescence. A study found 47% of Latino teenagers had engaged in sexual activity while only 30% of parents perceived that their teenagers had experience in sex (Guilamo-Ramos *et al.*, 2007). Not only Latino parents underestimated the sexual risk behaviours of their teenagers (Jaccard *et al.*, 1998). Parents might not notice signs that their teenagers had become sexually active (Guilamo-Ramos *et al.*, 2006b). Wamoyi *et al.* (2010) reported that most of the Tanzanian mothers in their study indicated that they decided to talk about sex with their daughters only if they knew that their girls were in a sexual relationship. Beckett *et al.* (2010) indicated that more than one third of parents had not discussed sex related issues in 14 out of 24 topics before the teenagers began exploring sex. More than half of the boys had not talked about sex related issues in 16 out of 24 topics by the time genital touching (used as a sexual milestone) had occurred.

Walker *et al.* (2008) on the other hand demonstrated that parents indicated the most appropriate time for parental communication about sex should be when their teenagers were in the elementary school years. A cross-sectional study of 14 to 17 year old sexually active adolescents and their mothers, found that 70% of adolescents reported having

discussed condoms with their mothers. Male adolescents discussed condoms with their mother at a younger age (mean= 12.9 years) than female adolescents (mean= 13.5 years) (Miller *et al.*, 1998b). High percentage of parents in Greece stated that sex education should start during primary school years (64%), 24% during pre-school years, and 13% from the age of puberty (Kakavoulis, 2001). Similarly Wilson *et al.* (2010) focused on parents of 10-12 year olds, in three cities in different regions of the United States and found that many parents thought that age 10-12 might be a suitable time to talk about sexual matters, especially puberty and biology of reproduction. This might be because the parents in this study had higher educational levels than the U.S. average, 42% of respondents had at least a college degree. Most parents suggested that the topic of sexual intercourse waited until later. They thought such topics would lead their children into thinking about sex and might destroy the innocence of their children. In contrast, a few participants thought that the topic of sexual relations should be taught at age 10-12 years because of the amount of information children are exposed to from elsewhere and teenagers might know more than parents expect.

3.3.6 Barriers of parental communication about sex

Although a number of studies indicated that parents considered they were important resources of sexual information for their teenagers, many of them do not know how to bring up the subject. They were not prepared to lead discussions, and they could not find the right moments to discuss sexual matters with their teenagers (Walker *et al.*, 2008). Australian mothers reported that generally they were not secure in their ability to communicate openly with their teenagers about sexual matters. In addition, their teenagers were having sex education lessons at school (Rosenthal *et al.*, 1998).

A study with parents and teenagers in rural South Africa found that traditional values of sexual topics as taboo made parents feel uncomfortable and lack confidence in discussing sex with their teenagers. In addition, inadequate knowledge of the subjects made parents lack confidence to lead discussions on sexual matters (Phetla *et al.*, 2008). These findings have similarity to the study in Tanzania, East-Africa by Wamoyi *et al.* (2010) which reported that most Tanzanian parents were uncomfortable and were careful in mentioning sexual topics with their children because the social norms restrict openness about sex across genders and generations. A study in Vietnam indicated that Vietnamese parents stated a number of reasons that prohibit them talking about sex with their children such as embarrassment, limitation of knowledge, and teenagers were too young to learn about sex. Both fathers and mothers found it was hard to discuss sex with their children who were the opposite sex from them. They felt that they had inadequate knowledge to lead the discussions. Teenagers of both sexes felt reluctant and lacked confidence to discuss sex with their parents (Trinh *et al.*, 2009). The rural American mothers of female teenagers expressed that the characteristics and behaviours of daughters were one of the barriers to communication. These included 'lack of interest or readiness to talk and shyness, and modesty'. In addition, some parents felt embarrassed to discuss sex and they lacked knowledge, feeling that talking about sex might lead their teenagers to seek sexual experiences (Noone & Young, 2010, page 30).

Time limitation was one of the barriers that American parents in the inner cities indicated. They were busy with work or some single-parent households worked evenings, which made it difficult to communicate about sex related issues with their children. In addition, the cultural and language barriers might make communication difficult for parents who did

not speak English very well but their children did not speak the mother-tongue language (Wilson *et al.*, 2010).

Many limitations obstruct parents to display their roles as educators on sexual matters. The parents were hindered by a lack of knowledge and the sensitivity of the topic in some societies.

3.3.7 The influence of peers

A number of studies across countries reported friends as the source of information on sex related issues for teenagers rather than parents. Guzman *et al.* (2003), found most teenagers (70%, n=724) reported feeling comfortable or very comfortable talking sexual matters with their friends. Powell (2008) found that teenagers highlighted that peers and friends were important sources for sexual information and were regarded as easier to speak to. A survey in Greece found that teenagers seem to get sexual information from other sources more than from parents; 25% stated that they get information from printed materials, 20% from television or videos, and 18% got information from parents (Kakavoulis, 2001). A study with 286 male undergraduate students in the USA found that 24% stated their parents had never discussed sex with them. Teenage men reported receiving more sex education from peers and media than from parents. Peers and media provided information including advice on dating and sexual behaviours in detail, and this met the need of teenagers (Epstein & Ward, 2008). In contrast, Dilorio *et al.* (1999) reported teenagers of both sexes (13-15 years) were more likely to discuss sex-related issues with their mothers than with their friends. Perhaps, the roles of mothers in young teenagers might be more important than in the middle and late teenagers. Wilson *et al.* (2010), focused on parents of 10-12 years old teenagers and were concerned about access to pornography on the Internet and cable TV

but it would be hard to regulate the information that they receive. Teenagers may be misled into harmful situations because the media might give unrealistic information.

3.4 Links between parental communication and sexual risk behaviours of adolescents

Parental communication plays a critical role in preventing the sexual risk behaviours of teenagers including timing of sexual initiation, birth control, or teenage pregnancy (Kapungu *et al.*, 2010). Teenage children of parents who play an active role in advice and communicate about sex related issues used contraception more frequently (Miller and Whitaker, 2001). A number of studies have addressed the issues of amount and quality of parent-adolescent communication about sex and its influence sexual risk behaviours in adolescents, usually in the form of correlation analyses, but reported inconclusive results.

Results across a number of studies are complicated and it is not simple to show direct association (Rodgers, 1999; Miller & Whitaker, 2001). However, the most frequent finding was that positive parent-adolescent communication related to less frequent sexual activity (Miller *et al.*, 1998b; Miller *et al.*, 1999; Rodgers, 1999). Many studies argued that good communication of parents and child demonstrated increased contraceptive use, lower number of sexual partners (Whitaker & Miller, 2000; Hutchinson, 2002; Huebner & Howell, 2003; Hutchinson *et al.*, 2003), and negative attitudes to teenage pregnancy (Jaccard *et al.*, 2003).

However, a number of authors have argued that communication in family about sex-related issues has no direct influence to sexual risk behaviours of adolescents (Somers & Paulson, 2000; Huebner & Howell, 2003). Some studies have found no relation between parent-

child communication and sexual behaviours (Casper, 1990; Hovell *et al.*, 1994). Such a study by Guzman *et al.* (2003), found the comfort of parent-child communication about sex did not predict the age of sexual initiation of teenagers. Although, teenagers who feel comfortable discussing sex with their parents were less likely to be sexually active.

Whitaker and Miller (2000) concluded that some studies have found that parental communication is associated with less risky sexual behaviour, but others have found it is not. 'One reason for the lack of clear findings about parental communication is that, in many studies, parental communication has been conceptualised relatively simply: either parents have talked to their teens about sex or they have not' (Whitaker & Miller, 2000, page 253). Additionally, general measures of communication about sex-related issues ignore the absence or presence of specific topics as well as aspects of the communication process, including the timing of communication, the expanse of the communication, parental responsiveness during the discussion, and whether permissive or conservative messages are conveyed. Finally, the relationship between parent-child communication about sex and sexual risk behaviours of teenagers is inconclusive results that the peer pressure might be made influences for parents to enhance or obstruct them to give advice for their children to have skills and abilities to handle peer pressure.

3.4.1 Sexual initiation

Open communication about abstinence is one of the important strategies used to encourage adolescents to delay timing of sexual initiation (Walker *et al.*, 2008). A number of studies focused on the issue of parent-adolescent communication about sex and its impact on the onset of sexual initiation. Various methods were used to examine the correlation between the variables. There were longitudinal studies (Karofsky *et al.*, 2000; McNeely *et al.*, 2002;

Bersamin *et al.*, 2008), some studies were survey studies (Whitaker & Miller, 2000; Hutchinson, 2002), and qualitative research (Walker *et al.*, 2008). Authors argued that frequency and quality of parent- adolescent communication about sex had significant association with the timing of onset of sexual intercourse. Where teenagers had good communication with parents this positively associated with abstinence, and delaying the onset of sexual debut (Miller *et al.*, 1998b; Karofsky *et al.*, 2000).

Most studies focused on adolescents' talking with mothers about sex to delay timing of sexual initiation rather than studies with father groups. According to Hutchinson (2002) using a survey method, which collected data with 234 women of 19 to 21 years of age, communication with mothers was significantly associated with delaying sexual debut. Karofsky *et al.* (2000) who conducted a 10-year longitudinal survey of 203 white middle class participants aged 12-21 years found that those who reported more positive communication with their parents were more likely to delay the initiation of vaginal intercourse than those who reported more negative communication with their parents. In contrast, McNeely *et al.* (2002) studied 15,243 students aged 14 to 15 years old by using a longitudinal approach and found that frequency and comfort in discussing sex with parents did not significantly predict the delaying of sexual debut. According to McNeely *et al.* (2002), romantic relationship related to early sexual initiation among teenagers. Parents who feel that their teenagers are involved in romantic relationships were more likely to discuss sex for five out of six sex related topics with their teenagers than were parents who perceived that their teens had not been involved in romantic relationships (Eisenberg *et al.*, 2006). Bersamin *et al.* (2008) reported parent-child communication was not significantly associated with the onset of vaginal sexual intercourse but higher quality mother –child communication was a significant predictor of lower age of initiation of oral sex.

Whitaker and Miller (2000) using an interview survey of 907 teenagers aged 14 to 16 years old and found that 60% adolescents had had a discussion with one or other parent about the appropriate age of sexual debut. Sexually active teenagers who reported having at least one sexual experience reported that 78% of them had discussed condoms with parents.

Teenagers who discussed with parents about timing of debut tended to delay the onset of first sexual intercourse (M= 13.8 years vs. 13.5 years). Peer norms were associated with sexual behaviours for sexual initiation and condom use among teens who had not talked about sex with their parents. According to Wang *et al.* (2007), a survey with 1,304 youth in China found that parent-child communication about sex with the same sex of both sides correlated positively with time of sexual initiation. Guilamo-Ramos *et al.* (2006b) indicated that Latino parents displayed disapproval of sexual activity while a teen and convey the message about the negative consequences of sexual behaviours were the most effective ways to protect their teenagers who have not yet become sexually active to avoid the risk of teenage pregnancy and STIs.

A study by Lehr *et al.* (2000) found contrasting findings that teenagers who reported openness of sexual communication with mothers were more likely to have sexual initiation early prior to age 18. Similarly to Clawson & Reese-Weber (2003) older teenagers reported that teenagers who had more communication about sex with fathers and mothers also reportedly had first sexual intercourse at younger age. While Atienzo *et al.* (2009) indicated that teenagers who discussed sex with their parents after the first sexual intercourse were more likely to have sexual initiation at earlier age.

Most findings showed decreasing communication and increasing age of teenagers associated with increased the risk of initiating sexual intercourse. Early sexual debut is a

serious problem for sexual risk behaviours of teenagers such as increasing numbers of partners or lower rates of contraception (Karofsky *et al.*, 2000).

3.4.2 Birth control and numbers of partners

A number of studies focused on the relationship between frequencies of parent-adolescent communication about sex with consistent birth control such a condom use in diverse groups. More communication between parents and teenagers was associated with greater condom use at most recent intercourse and those children tended to have fewer partners (Whitaker & Miller, 2000). Discussion about sexual topics before the first sexual initiation was strongly associated with condom use at the first sexual intercourse and consistency in long-term condom use (Atienzo *et al.*, 2009).

Miller *et al.* (1998b) stated that seventy-six percent of adolescents had discussed condoms with their mothers, and male teenagers were more likely to have discussed condoms with their mothers at a younger age than female teenagers. Mother-adolescent communication about condom use prior to sexual initiation was strongly associated with subsequent adolescent condom use. A study by Aspy *et al.* (2007) found that teenagers who were taught at home about abstinence sex and birth control were less likely to have more sexual partners than those who were not taught.

Hutchinson (2002), focused on women aged 19-21 years, and found that respondents who reported good communication with mothers were more than 60 percent more likely to report consistent condom use during adolescence. However, communication with mothers was significantly associated with consistent condom use, but no direct association with likelihood of sexually transmitted diseases likelihood. Another Hutchinson paper, focused

on 219 sexually experienced female adolescents in inner city, aged 12-19 years, reported female adolescents who discussed sexual risks with mothers were less likely to have unprotected sex than were females who had not discussed sexual risk issues with their mothers. Higher levels of mother-daughter sexual risk communication was associated with fewer episodes of unprotected intercourse at 3 month follow-up, but was not significantly associated with adolescents' reports of numbers of male sexual partner (Hutchinson *et al.*, 2003). However, a study by Jaccard *et al.* (1996) found that maternal discussions about birth control were associated with increased contraceptive use for male teenagers, but was not significantly related to consistent contraceptive use for female teenagers. Huebner and Howell (2003) indicated that the frequency of parent- adolescent communication did not directly affect using a condom and numbers of partners.

A study of amount and timing of parent-adolescent communication about sex with participants, 18 to 21 years old, found that communication between mothers and teenagers was significantly associated with more methods of birth control used, but was not found significant with condom use. Communication between fathers and teenagers was not found to be significant for contraception use.

3.4.3 Unplanned pregnancy

A cross-sectional study of 350 African-American female teenagers indicated that higher levels of maternal discussion about the negative consequences of pregnancy were significantly correlated with more negative attitudes towards teenage pregnancy (Jaccard *et al.*, 2003). Discussion focused on three items, 'how my getting pregnant might embarrass me; how my getting pregnant might force me to grow up too fast; and how getting

pregnant might tie me down and make me down and make me unable to finish school’ (Jaccard *et al.*, 2003, page 86).

Only one study focused on two groups of teenagers, interviewed by phone, with 40 teenagers who had never been pregnant and 43 pregnant or parenting. Teenagers in the never pregnant group reported getting more information about sex from parents than the group of pregnant or parenting (Baumeister *et al.*, 1995).

3.5 Gaps in existing knowledge

In the previous chapter the evidence presented shows that premarital sex is culturally unacceptable however, Thai teenagers are embarking on sexual relationships before marriage. They are still unaware of the risk of unsafe sexual intercourse and illegal abortion is the most common way that Thai teenagers choose to resolve the problem of unwanted pregnancy (Warakamin *et al.*, 2004).

Thai teenagers have varied experience of sex education because of the limitations of curriculum, teacher education and resources. The focus of sex education in Thai schools complies with the traditionally narrow concept of sex education as a biologically focussed subject. There appears to be little or no involvement of parents or consideration of the role of parents in planning for sex education in schools.

Udon Thani province has reported very high rates of teenage abortion, and sexually transmitted infections (STIs) which reached 50% of all STIs diagnosed in 2008 (Udon Thani Provincial Public Health Office, 2008). The evidence of teenage sexual health

problems challenges me to find out how teenagers and families deal with such issues, especially the existing attitudes in relation to parent-child communication about sex.

Most studies reviewed have taken place in western developed countries focused on sexual risk-taking of teenagers and considered the important issue of parent-child communication about sex to reduce negative consequences. Only a few studies about parent- child communication about sexual matters have taken place in developing countries. In addition, most previous studies have focused on parental communication rather than parental attitudes towards sexuality. An understanding of the breadth and depth of parents' approach and how they construct their roles as educators in sex related issues is very limited in the existing literature because most studies collected data by using quantitative methods.

The literature showed several instruments were used to assess parental communication about sex covering a wide variety of topics by self-report, most studies demonstrated whether communication took place, frequency, content, comfort, timing, and barriers of communication about general topics and sex related topics and how these variables influence adolescent sexual risk taking. There were a wide variety of sex related topics explored with different participant groups and the findings about parent-child communication were mixed and inconclusive.

It is difficult for me to use the measurements, or apply the findings of parent-child communication in existing studies from other countries to encourage Thai rural parents to become involved as sex educators. Therefore, it is a significant gap in the knowledge base and the rationale for undertaking this study.

CHAPTER 4

METHODOLOGY AND METHODS

Introduction

The previous chapters have outlined the existing knowledge about sex education and parent-child communication about sex and I have been able to identify gaps in knowledge.

In this chapter, I explain the methodology and methods employed within this study to try to fill the gaps identified:

In the first part, methodology, I describe the research philosophy; what a mixed methods approach is and why I chose this methodology, including the rationale for doing triangulation mixed methods.

In the second part 2, methods, I explain the rationale of using the survey, focus groups, as well as in-depth interviews and how I explored each method. Moreover, I describe the process of analysis that I used to conduct for this study, and finally, I outline the techniques that were used for ensuring the trustworthiness of the data.

Part 1: Methodology

Before designing the study, I needed to consider the philosophical assumptions that provided a foundation for the research. A number of authors in social science methods have discussed the distinction between qualitative and quantitative research (Morgan,

2007). The approaches recognise different research paradigms, with qualitative research methods being explicitly associated with constructivism while quantitative methods are linked with a positivist view (Risjord *et al.*, 2001).

4.1 Research philosophy

In quantitative research carried out under the ‘positivist paradigm’ depends on the objectivity of the researchers and object of study, while knowledge is generated through direct measurements that are used to test relationships between variables (Creswell & Plano Clark, 2007). The constructivist paradigm follows an alternative viewpoint.

Qualitative researchers believe that to understand the whole phenomenon it is necessary to know the context and to explore the participants’ multiple realities (Krauss, 2005). They acquire data by interacting with the participants of the study and knowledge is constructed through learning to understand the meanings of phenomena.

Before I commenced this research study I believed that I would not be able to understand the phenomena of premarital sex and sex education in one society without exploring them in context. I searched for methods that would help me to understand the meanings that participants gave to these aspects of their lives.

The existing studies on sexual health issues had been carried out employing quantitative, qualitative and mixed methods approaches. These designs have both strengths and weaknesses. For example the personal interpretations that have to be made by researchers in qualitative study entail the potential to create bias (Creswell & Plano Clark, 2007), while quantitative approaches are limited in understanding the personal experience of phenomena

and struggle to encapsulate the context in which people talk. The generalisability of quantitative results is seen as a major advantage, but they may be too broad and general for direct application to specific local situations, contexts, and individuals (Mitchell, 1986; Duffy, 1987).

This study focuses on parent-child communication about sex. Sexual matters are sensitive issues that are often difficult to discuss publicly. Therefore, I considered using various methods in my study that, as a whole, had to be flexible in their application to help me get the data required.

The attitudes and values held by the participants could on this complex issue with its multiple dimensions and social as well as cultural variations cannot easily be captured in a formal questionnaire. Comprehensively illuminating parents' discussions of sex with their children cannot be accomplished by asking questions that demand 'yes' or 'no' answers or ask for an amount or frequency. This type of quantitative information does not explain why things happen. However, I believed that the numeric data made available with the help of a survey would be useful to understand the broader background. This would include potential areas of interest that could then be explored and clarified in-depth during the focus group and interview stages of the research.

The 'pragmatic' paradigm combines quantitative and qualitative approaches in one study and the main focus is on research questions rather than methods or the philosophical central concepts or paradigms to underline methods (Morgan, 2007). Pragmatism is described by Tashakkori and Teddlie (2003) as a practical paradigm that uses various approaches in objective and subjective values to obtain answers to research questions.

The pragmatist approach relies on a belief that no one approach is superior to another and that whichever approach can help to provide the answers is therefore correct. Onwuegbuzie and Johnson (2006) suggest that one method is nearly always used to support and inform the other method within a mixed-methods study.

Pragmatism as the alternative way claims to be the solution to the ‘paradigm wars’ between quantitative and qualitative research paradigms (Giddings, 2006) allowing for a much broader approach on the nature of reality and possibility of objective truth. Pragmatic approach has a specific basis for integrated research methods ‘and provides new options for addressing methodological issues in the social sciences’ (Morgan, 2007, page 70).

4.2 The reasons for using mixed methods in this research

The first step in deciding which research method to choose is to consider the research problem. This study aimed to explore the attitudes of Thai parents and adolescents towards parental involvement in sex education. The main research questions were as follows:

1. What are the existing knowledge and attitudes of adolescents in relation to sex and sex education in Udon Thani, Thailand.
2. What are the existing attitudes of parents in relation to sex and sex education in Udon Thani, Thailand.
3. What are the expressed barriers that may prevent parents from teaching sex education to their adolescents in Udon Thani, Thailand?

4. What do adolescents perceive they need from their parents in relation to education about sex and sexuality?
5. What are the expressed educational needs of parents in order to involve themselves in sex education?

It was important to consider how the study could be designed to effectively combine methods that would answer these questions. The combination of designs does have the potential to make the study more complicated to implement and describe (Creswell & Plano Clark, 2007). I therefore needed a design that was both appropriate to my research problems and pragmatic enough to be workable.

A triangulation mixed-methods design was used to address the research problem. In this most common and familiar approach of mixed methods two or more different methods are triangulated in a single study (Creswell & Plano Clark, 2007). My reasons for this approach were as follows:

- Neither a qualitative nor a quantitative approach alone could provide a satisfactory answer to my research question and would not fully explore the attitudes of parents and adolescents towards parental involvement in sex education in the context of village societies in Thailand. These were qualitative questions related to understanding of how parents construct their role as sex educator in the perspective of teenagers and parents. Some of these questions had been considered in a number of quantitative studies, but qualitative explorations that have focused specifically on this topic in rural Thailand are so far missing. It is thus timely to explore the

knowledge and attitudes of parents and their adolescents side by side on these issues.

- Mixed methods research is practical. It allowed a wide range of data collection tools to address the research problem rather than being restrictive in the choice of data collection tools typically associated with either qualitative research or quantitative research.
- Quantitative and qualitative methods can be combined to provide complementary data that will allow a researcher to understand the issues under consideration more fully (Teddlie & Tashakkori, 2003). The triangulation of qualitative with quantitative methods can make the eventual conclusions applicable to a wider population and help to limit the influence of bias of each method (Risjord *et al*, 2001).

4.3 Challenges in mixed methods research

Mixed methods research has developed and expanded in the last 2 decades from an emerging concept to an innovative technique of design (Creswell, 2008). Over many years, the multi-method design and a mixed-methods design have been used interchangeably. In multi-method research designs, the researcher uses two data collection procedures within one method, or two research methods. Whereas, qualitative and quantitative data collection and analysis are combined to answer the research problems in mixed-methods studies (Teddlie & Tashakkori, 2003).

The mixed-methods approach is a research design that focuses on the mixing of qualitative and quantitative data in many phases of single or multiple studies. The qualitative and quantitative combination ‘provides a better understanding of research problems than either approach alone’ (Creswell & Plano Clark, 2007, page 5). The mixing of data is a unique aspect of the mixed-methods approach. There are three ways in which mixing occurs: merging, connecting, or embedding one dataset within the other so that one type of data provides a supportive role for the other dataset (Creswell & Plano Clark, 2007).

Mixed methods could be defined as ‘the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study’ (Johnson & Onwuegbuzie, 2004, page 17). The goal of mixed methods research is not to ‘replace either quantitative or qualitative research’ but rather to exploit the strengths of both approaches by combining them in one study (Onwuegbuzie & Johnson, 2006). Similar to ‘the pieces of a jigsaw puzzle that provide a full image of a certain object if put together in the correct way’ (Erzberger & Kelle, 2003, page 461). This type of research needs more elaborate explanations within its methods and purposes, as well as how and for what purpose the results from the different methods are being combined (Bryman, 2008).

A number of reviews claim that a mixed-methods design is able to provide an alternative to mono design (Bergman, 2008) with rich data and useful results (Kristensen *et al.*, 2008). There are however, problems of representation, legitimation, and integration because of the complexity in combining both methods (Onwuegbuzie & Johnson, 2006; Collins *et al.*, 2007).

Representation in mixed methods refers to sampling, which is even more complex in mixed-methods research because the study involves a combination of sampling strategies. The samples selected for mixed-methods approaches should generalise to the target populations (Collins *et al.*, 2007).

Integration in mixed-methods: mixed-methods researchers should consider when it is appropriate to triangulate, expand, compare, or consolidate two data sets, and how much weight is placed on qualitative data compared to quantitative data (Collins *et al.*, 2007, page 269).

Legitimation in mixed methods refers to validity issues within mixed methods. Validity in quantitative research refers to internal and external validity. On the other hand, in qualitative research validity is not always seen as a helpful term. Here ‘trustworthiness’ Lincoln and Guba (1985) is a system that is used commonly to demonstrate quality. To show trustworthiness a qualitative study has to be credible, transferable, dependable, and confirmable.

A few studies reported that ‘*inference quality*’ is used as a means of ensuring mixed methods validity (Onwuegbuzie & Johnson, 2006). The term inference quality includes design quality and interpretive rigour. Design quality refers to the methodological rigour that includes four main points: within-design consistency, design suitability, design faithfulness, and analytic adequacy. Interpretive rigour refers on the other hand to the standards for evaluating the validity of conclusions. It includes interpretive agreement, interpretive distinctiveness, interpretive consistency, and theoretical consistency (Teddle & Tashakkori, 2003; Onwuegbuzie & Johnson, 2006).

Part 2: Methods

This section presents the methods and procedures used to collect and analyse data, including target population and sampling, data collection, methods of data analysis, ethical issues, and rigours.

4.4 Population

The target population of the study included parents and adolescents living in three villages within three districts of Udon Thani province, Thailand. The three districts were selected purposively because of their high levels of teenage pregnancies. From 2005 to 2007 approximately 25-28% of postpartum women in these districts were teenagers. Working on the assumption that each village has around 200 to 300 households and that approximately 30% of households are part of the target population, i.e. they have 15 to 19 year old adolescents in their families, it was concluded that the overall target population included approximately 272 parents and 272 adolescents within the three villages.

4.5 Participants and settings

4.5.1 Participants in quantitative approach

A survey sample size formula was used to calculate the sample size. For at 95% confidence level and $\pm 10\%$ accuracy level, which mean that there is a 95% probability that the survey response does not vary more than $\pm 10\%$ (Fink, 2003), I aimed to recruit approximately 79 parents and 79 adolescents from the target population within three villages (See Table 4.1). Every parent and adolescent within the three villages had the same probability of being

included in the sample. The calculation demonstrates a sample size at 71 is required. To allow for drop-out I increased the sample size by 10% to include 79 participants.

Sample size formula

$$S = \frac{P(1-P)}{\frac{A^2}{Z^2} + \frac{P(1-P)}{N}} = \frac{0.5(1-0.5)}{(1.96)^2 + \frac{0.5(1-0.5)}{272}}$$

$$S = 71$$

S = Sample size required

N = Number of people in population (272 parents and 272 adolescents)

P = Preliminary estimate of percentage of people in population who possess attribute of interest. Note: The most conservative estimate (and the one most often used) is 50% (Use .5 in the formula)

A = Accuracy desired. This is the 'x' in the $\pm x\%$ in the formula, use the decimal value.

This study will use 10% for accuracy desired (0.05 for 5%, or 0.10 for 10%).

Z = The number of standard deviations of the sampling distribution (Z units) that correspond to the desired confidence level. (1.96= 95% confidence level)

Table 4.1: The numbers of target population and participants

Settings	Households	Adolescents' households	Parents/adolescent participants		
			Questionnaires	Focus groups	In-depth interviews
1. Nonglad village, Nong Han districts	278	74	21/21	6/12	3/3
2. Dongbang village, Kud Chap district	296	87	26/26	12/12	4/4
3. Nongyacai village, Wang Sam Mo district	242	111	32/32	12/12	4/4
Total	816	272	79/79	30/36	11/11

4.5.2 Participants in the qualitative exploration

Focus groups and in-depth interviews were used to collect data for a qualitative exploration. Following the survey 30 parents and 36 teenage volunteers participated in focus groups. To gain further in-depth experiences and information related to the parents' and adolescents' needs for sex education 11 parents and 11 adolescents were recruited through the focus groups for participation in one-to-one in-depth interviews.

4.5.3 The selection criteria of participants

Parent and adolescent participants were asked to either give their consent by writing or thumb print (if they were illiterate). The participant selection criteria were:

- Parents and adolescents were able to speak well enough in Thai or Isan (a local language), so that they could communicate with the researcher who was fluent in both languages.
- Adolescents were aged 15 to 19 years. They assented themselves. However, as the legal age of consent in Thai law is 20 years of age, at least one of their parents or guardian had to give consent before they were approached.

4.6 Data collection

4.6.1 Fieldwork process-gaining access

During my seventeen years of field work experience I have gained many helpful insights into the process of establishing strong relationships with research participants. For example, I was aware that if I did not build relationships with the community leaders first before proceeding to collect data through direct contact with the participants, I was likely to encounter problems. Village people are expected and normally committed to co-operate with the accepted community leaders. These are the people who would explain the research

project and introduce the researcher to the village. This assures the population that the researcher is genuine and has no other hidden agenda. The topic investigated in this study is still taboo in Thai society, and a proper and careful introduction was of high importance.

When is made the first contact with the head of healthcare volunteers in the first setting (Nonglad village) I learnt that not only the families I targeted would show an interest in the study, but the entire village. Everybody would observe the meetings and ask who I was, wondering why I was interested in coming to their locality and wondering what I was going to do. What the head of healthcare volunteers described to me is a typical response of remote village society, showing interest in anything newsworthy that might be happening. The traditional place for conversations to take place is the ‘sala’ (ศาลา), a stone table or bamboo bed at the corner or in front of houses. When villagers see their neighbours there, they would greet them and join their conversation. This would especially be the case when the person was a stranger, and the story would find its way throughout the village. For this reason the village headman made a public announcement over the village’s radio tower that I, a health researcher, would be visiting. He also explained the study and its goals to potential participants personally at their homes.

There was, however, one major difference in the preparation of the target participants and settings from the other times that I had gone to collect data in the past. This time I came as a student not as a health care officer in the local area. Normally, villagers would not trust a stranger with personal information and would not invite a stranger into their private dwellings. Therefore, I had to make an extra effort to gain their trust in order to meet and discuss sensitive issues.

4.6.2 Fieldwork process-recruiting participants

The head of health care volunteers in the selected villages introduced me to the relevant families in each of the various homes in order to request their co-operation in the research project. I explained the project and gave them the ‘information sheet’ (Appendices C1-C2), which was used to explain the purpose of the research and allowed the potential participants a period of 3 days to agree to enter into the study or to turn down the invitation to join in the research project. Those that agreed to join the research project had to sign a consent form (Appendices C3-C4) to show their willingness to participate. The teenage participants were also required to have a signed permission to participate from at least one parent or guardian (Appendix C5). I received permission from 79 parents or guardians to allow 79 teenagers to join in the project. All participants received a full explanation of the research and their role within it (Polit & Beck, 2006).

One hundred percent of participants were willing to participate in the project, no one declined to participate at all. This was likely due to the following factors: I personally met with each family about the aims of this study including the fathers, mothers, and young people, which facilitated the understanding of the study and re-assured the participants. In addition, there is a natural custom of the rural Thai people to be courteous, fearing offending the ones who provide health services to them. Most importantly they accepted me because the head of health care volunteers, as a highly respected person in the area had introduced me to participants. I later learnt that the head of health care volunteers enjoyed high levels of trust. When they are ill or injured the villagers place their lives into their hands when being treated. They remembered the ‘good deeds’ of these frontline health care workers because they cared for them while they were ill until they were well again. When my research was endorsed by the head of health care volunteers this trust had been

extended to me. To successfully complete not just this research, but to ensure future research was equally well supported I had to justify this trust by working in an ethical and trustworthy manner.

I began collecting data in the field in November 2008 and concluded this work in April 2009. Fieldwork was first undertaken in ‘Nonglad’ one of the three villages and then subsequently, following identical procedures, in the other two villages ‘Kudchup, and Nongyacai’. It took approximately one and a half months to collect data in each setting as described in Appendix D. The details of each data collection method are shown below.

4.6.3 Questionnaire survey

The questionnaire survey represented the first stage of this research, it provided many strengths to the study. The main reason for using the questionnaire survey to collect data was its speed and efficiency to collect data from a large sample. In addition, the questionnaire could address a much broader range of research topics than other methods (Singleton *et al.*, 1993). In this study the questionnaire provided broad information on knowledge, attitudes, norms and values of parents and adolescents in rural areas on sexuality-related issues. The survey provided a standardised way to collect data as a beginning point for the study. The self-completion questionnaire allowed the respondents to anonymously answer questions on the sensitive issue of sexual behaviour. Self-completion surveys can often have low response rates. However, as the research had been endorsed by the village authorities and as the subject was of personal importance to each participant the response rate was extremely very high (100%). The respondents were given the option to not complete the survey if they did not want to, but all of them did.

Why the modified questionnaires were used

The questionnaire used for the survey originated from a WHO questionnaire for adolescents that addressed information on a variety of topics (Cleland *et al.*, 2000) that Vuttanont *et al.* (2006) had modified the questionnaire to focus on the sexual behaviours in adolescents after a school-based sex education programme in 6 secondary schools in Chiang Mai, the biggest city in northern Thailand. Most details from the original instrument (Cleland *et al.*, 2000) were included to Vuttanont, *et al.*'s instrument, with the exception of 4 parts related to the degree of sexual intimacy, sexual experience, sexual partners, and homosexual experiences. These had been omitted because these sections were seen as being too sensitive to ask Thai teenagers. Vuttanont *et al.*'s questionnaire had been validated in English and in Thai, and produced reliable responses.

I requested and was granted permission to use the questionnaire survey from Vuttanont *et al.* (2006), the confirmation of permission is shown in Appendix A. The reasons for using these instruments were because

- The instrument was designed to be suitable for Thai teenagers who have reached puberty but have not yet married. It is suitable for male and female teenagers, and for sexually active teenagers as well as those without experience.
- The questionnaire survey of adolescents by Vuttanont *et al.* (2006) was composed of both closed and open-ended questions. Open-ended questions enabled respondents' freedom to answer questions in their own words, rather than constraining them to fixed responses.
- Vuttanont *et al.* (2006) modified this instrument, focused on sexual behaviours in adolescents after a school-based sex education programme in 6 secondary schools in Chiang Mai, Thailand. They found only limited parental input,

thereby presenting a gap in existing knowledge that this study does focus at.

This present study does also focus on parents and adolescents in rural areas, which is a different context from urban areas that Vuttanont *et al.* (2006) study previously reported on.

The questionnaires in this study composed of the questionnaire survey for adolescents (Appendix E1) and the questionnaire for parents (Appendix E2).

The questionnaire for adolescents focused on five different sections, there were the:

- characteristics of the respondents and their families
- information on and knowledge of sexual health
- awareness of contraception and condom knowledge
- existing ideas of HIV/AIDS and sexually transmitted infections
- awareness of health services

Vuttanont *et al.*'s (2006) questionnaire for parents is composed of ten closed questions with five rating scales of parents' attitudes towards sex education, including topics of importance of parents as sex educators, appropriate times to discuss sex with their children, schools as providers of sex education, barriers that prevent parents involvement sex education, and the need of teenagers in relation to reproductive health care.

Difficulties that were encountered in questionnaire survey

The questionnaires were used to collect data from 79 parents and 79 adolescents within three villages. Parents were asked to complete the questionnaire at their home, which usually took approximately 45 to 60 minutes. Two parents could not read the questionnaire. I explained the purpose of questionnaire, the questions, and the meaning of

the ranking numbers of the answers to them. Then, I read each question at least two times and asked them to make sure that they clearly understood each question. Finally, the parents selected the choices of answers by themselves.

Adolescents were asked to complete the questionnaire at their community centres; this enabled them to feel more comfortable to state their perspectives on sensitive issues away from their parents. Otherwise, their parents might dominate their ideas if they were to complete the questionnaire at their homes. The questionnaire for the adolescent groups included five parts within 29 pages. The young people co-operated fully but took a long period of time to work through the questionnaires. They spent about one and one half hours each for the completion of the questionnaire. When I checked the questionnaires after the first ten, I discovered that adolescents were not giving their thoughts about the subject matter when they had an opportunity to write within open-ended questions. Therefore, I had to make an adjustment to correct the apparent problem by more explanation and requesting their consideration of the questions. This resulted in more response to these open-ended questions. I discovered that the respondents were much freer adding more materials in their responses, usually in short words, after I encouraged them to write more full answers. Nevertheless, generally they responded with somewhat terse answers. This may be because the Thai education system tests the students with true and false type questions or multiple choice answers rather than questions, which demand their recording their opinions or thoughts.

The questions for the parents group were problematic because many of the parents did not understand what the Thai words that refer to “sex education” meant, because they were somewhat unfamiliar with technical or medical words. Therefore, I had to explain the

questions more fully and include a “discussion of the subject of teaching about sex” instead of assuming that they understood the formal and unfamiliar medical term. The participants understood the simple Thai terms much easier.

4.6.4 Focus groups

Eleven focus groups were conducted between December 2008 and March 2009. In total 30 parents and 36 adolescents took part. Each focus group included 5 to 7 participants, which is consistent with recommendations by experts (Hyde *et al.*, 2005) and lasted for approximately 70 to 90 minutes. The focus group approach had previously been employed to provide effective insights into the views of adolescents on sexual health issues (Hyde *et al.*, 2005). Participants in focus groups were recruited through the survey by volunteer so that all participants in the surveys had an opportunity to participate in focus groups.

The focus groups consisted of either parents or adolescents; all but one parent group were a mixed sex group. This was to enable them to share their perspectives on fathers’ or mothers’ role related to sexual issues concerning their adolescent children. Focus groups for adolescents were conducted in single sex groups. This was enabling them to feel less reluctant to state their perspectives on sensitive issues. Parents and adolescents in focus groups were asked about their views of the sex education that adolescents were receiving, the barriers that may prevent parents from teaching sex education to adolescents, suggestions for changes and improvements to current sex education as well as the educational needs of parents and adolescents.

The focus groups were a useful method to address the research questions because they provided an opportunity to ask participants in more detail about topics of interest, and

allowed me to interact directly with parents and adolescents (Stewart *et al.*, 2007). Focus groups are used to provide insights, greater depth and detail (Stewart *et al.*, 2007).

Furthermore, focus group techniques allowed participants to react and built upon the responses of other group members. This was made possible by using vignettes.

The vignettes allowed the participants protection from self disclosure in that they were able to disclose their own opinions by considering issues in the lives of others without having to disclose personal details. This helped the participants to feel comfortable and to share their opinions safely among people who knew each other (Kitzinger, 1990). In addition, the focus group technique provided an opportunity to obtain large amounts of rich data, and was useful for obtaining data from parents in rural areas who had low levels of education. It was a suitable way to understand how participants think about sexual issues (Krueger & Casey, 2000).

The focus group vignettes in this study

Vuttanont *et al.* (2006) had used story vignettes with focus groups of teenagers in urban areas to explore their attitudes to sexual risk and contraception. In order to stimulate discussion this study also used Vuttanont *et al.*'s (2006) structured vignette stories but I added 'negative' outcomes resulting from unprotected intercourse and an exploration of how to resolve the problems of unintended pregnancy (parts 6 to 9, see Table 4.2). In addition, Vuttanont, *et al.*'s scenarios were modified to take into account the different, i.e. rural, context, and this study included both parents and teenagers. The structured vignette story successfully facilitated the discussion on sexual issues.

Translation of the vignettes

In order to assure the appropriate translation of the vignettes from English into Thai this study used the process of translation procedures as suggested by Sperber (2004). First, the modified vignettes for parents and teenagers were translated carefully into Thai. Once complete the translated vignettes (in Thai) were sent to two Thai experts to check the correctness of translation. Finally, any differences were checked and discussed with both Thai experts to further refine the Thai vignettes.

Table 4.2: The vignette used in focus groups of parents and teenagers

The vignette	Prompts
Part 1: Mali (meaning “flower”) is the same age as you/ your daughter. Her parents are very strict and they tell her that she must not get a boyfriend until she has finished her secondary school.	How do you think Mali would feel? What do you think she would do?
Part 2: Mali meets a boy, Somchai (meaning “handsome boy”) at school and he invites her to meet him in the evening.	How do you think Mali would feel? What do you think she would do?
Part 3: She goes to meet Somchai, and she suggests that they go together to the fair outside the village in the evening. He indicates that he likes her very much (and they have a great time being together).	How do you think Mali would feel? What do you think she would do? How do you think Somchai would feel? What do you think he would do?
Part 4: After the fair, they go to the park, and they begin kissing. Somchai is very keen to have sex with Mali.	How do you think Mali would feel? What do you think she would do? How do you think Somchai would feel? What do you think he would do?
Later, Mali is also keen to have sex.	Do you think Mali would think about using a condom? Do you think she feel strongly about using a condom? Why do you think she would feel that way?
Part 5: Somchai says he has no condom.	What do you think Mali would do next? Why do you think she will do that way? What do you think Somchai would do?
Part 6: After they have had sex , Mali goes back home.	How do you think Mali would feel? What do you think she would do? How do you think Somchai would feel? What do you think he would do? Do you think Somchai will talk openly to his parents about his relationship with Mali? Do you think Mali will talk openly to her parents about his relationship with Somchai?
Part 7: Mali may get pregnant because Somchai did not use a condom.	How do you think Mali would feel? What do you think she would do? How do you think Somchai would feel? What do you think he would do?
Mali’s menstruation is 2 weeks late. She talks with Somchai. She needs to know, what is happening to her body.	How do you think Mali would feel? What do you think she would do? How do you think Somchai would feel? What do you think he would do?
Part 8: Somchai and Mali need to get advice from others	Whom or what are the most important sources of information to Somchai? Whom or what are the most important sources of information to Mali?
	Is there anyone that Mali doesn’t talk to? Doesn’t like talking to? Is there anyone that Somchai doesn’t talk to? Doesn’t like talking to?
	Do you think Mali talks openly to her parents? What are reasons for her to do that? Do you think Somchai talks openly to his parents? What are reasons for him to do that?
Part 9: Mali tells her parents, she loves Somchai but she doesn’t tell anything more. Somchai doesn’t talk about Mali with his parents.	What are reasons for Mali to do that? What are reasons for Somchai to do that? What aspects of sex information is Mali most in need of from her parents?

Preparation before conducting focus groups – the role of researcher

As the researcher I prepared myself before the focus groups started and quickly learned the importance of adhering to an appropriate dress code. The field work was conducted during a period of significant political tension in Thailand. Three factions were apparent. The United Front for Democracy Against Dictatorship (UDD) protested openly against the government of the day. They were the dominant political force in the north and northeast of the country and were clearly identifiable by wearing red shirts as the group supporting the former Prime Minister Thaksin Shinawatra. The UDD was opposed by the second political faction, the People's Alliance of Democracy (PAD), with its base in the capital and central as well as eastern parts of the country. PAD was likewise protesting and had been instrumental in deposing the previous Thaksin government. This group would wear yellow coloured shirts. A third group chose not to participate in the political struggle and remained uncommitted, these people would avoid wearing the colours yellow or red.

When I went for the first time to the field work settings I decided to avoid wearing my official uniform, because the villagers respect and appreciate official staff but in their presence may not feel able to express their views freely. The data might become biased towards what the villagers thought I wanted to hear. I therefore chose to wear a yellow shirt to go into the first setting because yellow had been the colour used to celebrate the sixtieth anniversary of the Thai King's reign. I felt surprised when initially going into the first village, that some of villagers viewed me as dressing in an unacceptable fashion. They did not offer any assistance and were unwilling to engage in any discussions with me. At first, I thought that the villagers were opposed to me as a stranger and that was why they were unwilling to talk. I thought they needed more time to develop a good relationship between them and myself. One villager asked if I was a member of the yellow

shirts. I was then told that the village was composed of red shirts supporters of the former Thaksin government, who were the avowed opposition of yellow shirts. I assured everybody that I was not affiliated with anyone or any political party. I had been absent from Thailand for about one year during which the political turmoil had been escalating and I had been unaware of the changing social and political situation. After that day, I decided to wear the blue colour of the university, resulting in good interactions with the villagers. I had chosen to dress in the same informal styles as villagers and avoid dressing in yellow, or in the health care officer's uniform, to ensure that the participants felt at ease and in an equal relationship. I met them all when I distributed the questionnaires and I spent around one month in the village to conduct the survey before the focus groups started. This was sufficient to establish rapport and trust with the participants.

A time and place suitable for participants was chosen for the focus groups. The first focus group of fathers chose to use the open village meeting hall for discussions. The group discussion seemed to go well for the first five minutes, but soon after that there were problems developing because the meeting place was too open. Passers-by who were not involved were suddenly interested in what was going on. In addition, the members in focus group were interested in what was going on out on the road with each person passing by. I asked the group if they would mind if they could find a more appropriate place where there would be less distractions. They chose the home of the health care volunteer who had a large open room away from view, where non-participants would not interfere. After the move, I found that discussion was possible and went smoothly on each subject. I had learned that focus groups should be held in a private, quiet place that is free from outside interference. It could not be a public place where outside individuals may interrupt and distract the discussion.

I also prepared the health care officers of each setting where the research was to be carried out, who were trained as ‘counsellor’ to be able to give advice when participants in focus groups and interviews appeared to be distressed or under pressure when discussing the delicate subject of sex. There was a chance that the discussion might become emotional for participants who may themselves have experienced unplanned pregnancy or abortion or various risky sexual behaviours. However, no participant displayed any signs of distress or withdrew during the data collection process at all.

All the parents in this study were farmers. During data collection at the first setting from October 2008 to December 2008 those parents were busy with the rice harvest and not free during the daylight hours. Therefore, I had to adjust my schedule to meet with the parents in early mornings before they went to their fields or in the evenings after their day’s work and evening meal at approximately 7 pm. The latter was a relaxed time when they were resting from a day’s work and there was no pressure to go anywhere. The adolescent participants were available for data collection after school time each day and on weekends. During the remainder of the time I concluded the previous day’s events in order to have additional information and important points for discussions in the coming sessions.

During focus groups

Prior to the focus group, I made general conversation with the parents about their work in the fields to establish a comfortable environment. Our conversation began in the northeast dialect (Isan language). I also discovered that the choice of the dialect of the Thai language was very influential in establishing rapport with the respondents and encouraged their sharing about their thoughts and ideas. This was especially seen in the parent participants, who were not accustomed to using the official national language (‘Central Thai’) due to

their limited formal education and who would feel too shy to speak in the formal Central Thai language. Therefore, I chose to use the local spoken language and this made the participants comfortable to speak their mind. Fruit and drinks were provided for refreshment before starting discussion in focus groups and interviews.

As I had chosen to use scenarios about the sex-related issues, the participants were not expected to discuss their personal situation in particular. After introducing the scenario for discussion, I discovered that the members of parent groups often still had many questions for me, which had to be addressed before they could continue. For example, one of the fathers asked me ‘why must we discuss the subject about sex before marriage? What are you going to do with our data?’ Even though I had in previous sessions explained the reasons in detail, and had distributed an ‘information sheet’ to them already, they had to have full assurance that the results of this study would not have negative results for them or their community. One of fathers told me that it was impossible for them to discuss about sex as it was not permissible in a public place such as this. I clearly explained to them that scenarios will be used to discuss sexual matters and their viewpoints could focus on unknown individuals who are used as an example in scenarios without talking about their families. I explained that the discussion data would be used to help others who face difficulties with premarital sex problems. After explanation of the purpose of discussion, the parents felt relaxed, appeared happier, and were subsequently much more willing to share their viewpoints on each topic. All participants in each focus group knew each other well and that seemed to help them feel less reluctant in discussions.

As the focus group facilitator, I told the vignette story in short sections to every group, stopping to ask the group to share their ideas at each point, the subsequent discussion was audio-recorded. I requested permission from the interviewees and members in focus groups

before these recordings. Field notes were written after each focus group. Each group was attended by an observer, who acted as a note-taker without interfering in any other way while the focus groups were in process. The facilitator and note taker discussed the focus group in-depth afterwards to ensure a shared view of the interaction. Using the vignettes had indeed enabled the participants to voice their opinions without telling their own stories, enabling them to feel more comfortable to state their perspectives on sensitive issues.

Difficulties that were encountered in focus groups

In the focus group with 6 mothers in the first setting, Nonglad village, I had a problem with a participant who dominated the discussion for about 15 minutes. She talked all the time and I eventually tried to stop her in a positive way by encouraging other members to share their ideas as well. I did not want the opinion of those who dominated the conversation, yet I did not want to embarrass those who were most vocal, making them unwilling to participate afterwards. As a result of my intervention all participants had an opportunity to share their opinions on the subject.

In the adolescent groups, I discovered that the boy's groups were not as talkative as the groups of girls, so I asked for responses by name to encourage the boys to give their opinions. One boy in one group was very quiet. I tried to encourage him to participate but he would answer only very briefly. He mostly looked at the floor and did not make eye contact with others. At first, I thought this was a problem deriving from the scenario or from me as the researcher. I was surprised when later volunteered to be interviewed and he shared his ideas on subjects happily and he enjoyed discussing them openly with me. He explained that during the focus group he had felt embarrassed with his friends but he felt free to speak in the in-depth interview. He stated that he had experienced sex with his girlfriend and already the whole village knew his reputation well. He was afraid to say

anything in the focus group with his friends present because they would tease him, knowing that the proposed situation in the group discussion was about situations just like his experience. This showed me that there had neither been a problem with the scenario or with myself, but that the topic was related closely to his life and was difficult for him to discuss in a focus group.

4.6.5 In-depth Interviews

The semi-structured one-to-one interviews for parents and adolescents yielded rich data and provided extensive information to support earlier findings and also help respondents to clarify and expound information they did not want to voice in the group. In-depth interviews gave me an opportunity to search for, expand and verify descriptions of the phenomenon under study (Gubrium & Holstein, 2002). The purpose of in-depth interviews for this study was to explore in depth, the participants' views, and perceptions, and to learn about the context of the participants' thinking, about attitudes of parents and adolescents in relation to sex education in family. I collected extensive and intensive data from only a few parents and adolescents, because 'more individuals participating in in-depth interviews mean that a researcher would obtain less depth from each participant' (Creswell & Plano Clark, 2007).

Semi-structured interviews

I modified a WHO reproductive health topics schedule for Individual Interviews, which aimed to take 60 to 90 minutes (Ingham & Stone, 2000). The interview schedule from the WHO aimed to explore the respondent's knowledge and sources of information regarding relationships, sex and contraception focused on 3 issues:

- the role of parents and elders as well as the education system and the media in informing young people about sexual health matters.
- the quality and relevance of the information received is investigated in conjunction with the barriers to improved information
- the information and knowledge of alternative sources of advice and support, including their personal usage.

Ten questions for semi-structured interviews for parents and adolescents were modified from this WHO instrument to address the research questions about attitudes of parents and teenagers in relation to sex education, the barriers and needs for parental involvement in sex education. The topics and core questions for adolescents and parents are shown in Appendices E3 and E4.

Preparing for conducting in-depth interviews

The process of translation of the semi-structured interviews occurred in the same order as the translation process of the vignettes. To ensure the accuracy of the translated documents, translation checks were carried out by two bilingual academics who reviewed and checked the correctness of the translation. Following discussion a few words were changed to refine the English semi-structured interview data.

I had met all the participants previously when I distributed the questionnaires and conducted the focus groups, so rapport was already established. I explained that there were no right or wrong answers in the topics we would discuss before starting the first question to encourage the participants to freely express their views.

During in-depth interviews

I interviewed 11 parents at their homes in the local language (Isan language). Throughout the interviews, a non-hierarchical relationship was promoted and maintained. The parents' interviews did not create any problems, but I was extremely aware of the atmosphere in which the first teenagers gave their information. They were careful about what they said. Sometimes their parents would come, overhearing what they said and tell them what to do or not to do in front of me, at times even scolding them when. I had to change tactics and from then on I talked to the teenagers outside the house or in a room without an adult guardian. Many teenagers were interviewed at the private room of the Primary Health Care Unit. Fortunately, all parent participants understood the need for privacy and let me talk with their children alone. Each interview took around 60-90 minutes.

I started the interview for each participant with open question such as 'please tell me about yourself and your life now'. This aimed at knowing about general information of the participants' background and at creating a comfortable atmosphere. During the interview, probing techniques were employed, raising questions such as 'could you please explain more what you mean by...', or 'give me an example of that...'. During the course of the interview, I probed more deeply on specific topics and issues that participants had initiated. I attentively listened to what the participants said and encouraged them to clarify and elaborate the detail of their experiences.

I did write extensive field notes from my first encounters with the villagers onwards through to the end of the study in order to remind myself about events, actions and interactions, as well as to initiate the process of thinking and reflection. Importantly, there was no note-taking during the interviews themselves. Nevertheless, field notes were

written immediately after the conclusion of each interview. This example of my field notes was recorded on 23 December 2008, at 5:30pm.

During her interview 'Pin', a girl, spoke openly of her sexual experiences. She was crying all the time. I felt a deep sadness about her situation. She lacks any support whenever she has any difficulties in her life. After the interview, I asked myself whether I as the researcher had displayed the appropriate emotions or not.

A girl 'Pin' story that made me cry,

'I decided to gather information about getting a clinical abortion from my friends who have had an abortion already. My friends told me that the cost would be according to the months she was pregnant (for example three months pregnant would cost her three thousand Baht).... I was afraid to do anything, and was now four months pregnant. At this point I was unable to keep this from my friends and decided to hide this from my teachers for fear of being expelled from school and was hoping to finish ninth grade. During this time, I was under a lot of stress and worry, not knowing what to do next.'

I had learned from this field experience that I need to consider how to deal with sensitive situations. I gave support to this specific girl by listening to her whole story. I then moved on to general topics until I thought her emotions were stable again and felt able to move back to the interview guide. I learned from this situation that I needed to prepare myself to deal with hidden situations. I gave her a chance to withdraw from the interview, if she felt too uncomfortable and if required I would have referred her for support to a counsellor. However, she told me, she only felt sad with her previous experience of unintended pregnancy, and she did not need any support. Then, she continued to share her views in the interview.

Finally, some minor problems also occurred while interviewing parents. They often talked about unrelated subjects and I had redirecting the conversation carefully back to the subject

matter needed for discussion. Another problem was that at times neighbours, friends and family members came to meet participants during the interviews, this meant that I had to temporarily stop these interviews.

4.7 Ethical issues

I was conscious about the need to follow codes of ethics to avoid causing any physical and emotional harm to the participants (LoBiondo-Wood & Harber, 2006; Polit & Beck, 2006). Ethical approval was sought from the Faculty of Health Research Ethics Committee, University of East Anglia, and also the relevant provincial health offices of the Thai Ministry of Public Health, as shown in Appendix A. Ethical consideration was given in relation to the following:

- I gave an information sheet translated into Thai to read, or I read to illiterate participants. I asked participants first if they felt comfortable to receive the information in written form by themselves or if they wanted me to explain it verbally. Most parents felt uncomfortable talking in the central Thai language, most of them preferred me to explain the information sheet details to them first and after that they focused on the information document by themselves. All participants were given at least 72 hours to consider their decision to decline or agree to take part in the study. If participants agreed to take part, they were asked to give their consent either in writing or by thumb print (if they were illiterate). As with all other documents the consent form was read to illiterate participants who ‘signed’ using a thumbprint. Adolescent participants assented by themselves. However, one of their parents or a guardian had to give consent before the adolescents were included in this research. Participants had an opportunity to ask any questions, and refuse to

participate with this research without giving reasons at any time if they disagreed or were unsatisfied during the process. Many Thai parents in this area had only primary school level education and required extra help. I therefore explained to them verbally all the information on the information sheet.

- I watched out for signs of respondent discomfort, anxiety, or distress. There were sensitive issues to be discussed with the interviewees and so I had considered beforehand what I would do if someone became distressed during the interview or disclosed that they had been raped or suffered sexual abuse. I had a responsibility to ensure that the research ‘did no harm’. I therefore set up an opportunity for any participant who experienced stress related to this project to make contact with a nurse counsellor or other professionals at the local primary care unit who were able to help.
- Sex and sexuality are sensitive issues in Thai society. Therefore all data produced for this study was anonymised and kept strictly confidential (Polit & Beck, 2006). Each study participant was given a code number for identification purposes and pseudonyms have been used in the report of the findings. I am the only person to know the identity of the participants. Within the Doctorate thesis and in any subsequent publications and conferences presentations, I ensured that no participants are identifiable. All data is kept in secure storage on a UEA computer that is protected by my personal identification number and can be accessed solely by myself during the lifetime of the study. Once the Doctorate Thesis and any publications arising from the work have been completed, all recordings will be

confidentially erased, all transcripts will be stored in electronic form for 5 years. I undertook all data collection and data transcription.

4.8 Rigour

Mixed methods methodologists have tried to develop ways to ensure rigour by using ‘*inference quality*’, which includes components of design quality and interpretive rigour, This is still a new, still developing so only a few papers discuss validity in mixed research specifically (Onwuegbuzie & Jhonson, 2006). *Design quality* refers to the evaluation of the methodological rigour and the effectiveness of implementations. Four components for quality of research design are as follows, (Bryman, 2008).

- Design Suitability: the research design uses the most appropriate procedures for addressing research questions.
- Design adequacy: the quality of procedures is assured in terms of adequate sampling, data collection procedures, and data analysis procedures.
- Within design consistency: the design’s components are compatible with the sampling process.
- Analytic adequacy: data analysis strategies are appropriate and adequate to answer research questions.

Interpretive rigour refers to the standards for evaluating the validity of conclusions. Five criteria of interpretive rigour are described in the following section (Teddlie & Tashakkori, 2003; Onwuegbuzie & Jhonson, 2006).

Interpretive consistency: the clear audit trails from the excerpts of original data through analysis interpretation to final conclusions need to be demonstrated.

- Theoretical consistency: the results expand consistent with current theories in the academic field.
- Interpretive agreement: the reflection of peer-reviewed journals and dissertation committees.
- Interpretive distinctiveness: the necessity of making strong and plausible conclusions from the results.
- Integrative efficacy: adequately incorporate inferences made from both quantitative and qualitative strands of the study.

The importance of validity in quantitative research has long been accepted while the qualitative approach has used trustworthiness to test the quality. I would argue that mixed methods research involves complementary strengths therefore to ensure the quality of this research I have assessed validity and reliability separately between quantitative and qualitative approaches. I have chosen not to use the developing framework for rigour in mixed methods because it is less well established.

This study had two approaches. The first arm focused on collecting quantitative data and the second arm focused on qualitative exploration. The rigour of the quantitative study was ensured by paying strict attention to validity and reliability.

4.8.1 The rigour of the quantitative study

Reliability of questionnaire surveys

The questionnaires used are validated research tools. The internal consistency reliability of both questionnaire instruments was checked based on the criteria of the Cronbach's alpha values of the variable being more than a threshold of 0.7 (Nunnally, 1978). This is the most commonly reported estimate of reliability and the point of 0.7 is generally seen as suitable to reflect the construction of measurements. For example, respondents should get the same score on the questionnaire if they completed it at different times (Field, 2005). Before, validated questionnaires were used to collect data with target samples. I used these questionnaires to collect data with 27 parents and 27 adolescents in the village that had geographic data similarities to the settings to test the reliability of instruments first. I had checked completed questionnaires before testing reliability of measurements. The reliability of the questionnaire survey of adolescents found $\alpha = 0.77$, while the questionnaire of attitudes of parents towards sex education found $\alpha = 0.70$ (Appendix E5).

Generalisability of surveys

This quantitative exploration focused on 3 specific rural areas. However, the research findings were generalisable to the target population in the 3 settings because the sampling was random, i.e. every member had an equal chance of being selected (Sapsford, 2007). This survey required a sample that was representative of the target population (Carr, 1994), this would enable the findings to be generalisable to families living in other rural north-eastern areas of Thailand, as these have cultural, geographic and economic similarities.

4.8.2 The rigour of the qualitative study

Rigour was ensured in the qualitative element of the study by establishing trustworthiness in terms of credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985). These criteria are highly recognised as appropriate for qualitative research. In addition, Lincoln and Guba further amended their criteria to incorporate the element of authenticity.

Credibility

Credibility addresses the issue of ‘fit’ between participants’ views and the researcher’s representation of them. Credibility was demonstrated through a number of strategies: member checks; peer-debriefing; prolonged engagement; persistent observation and audit trail (Lincoln & Guba, 1985). Member checking is a process of returning to the participants and asking them whether the analytical result represents their experience of the phenomenon under study. In this study informal member checking took place at the end of each focus group, and in-depth interviews of parents and adolescents: I summarised the main points of discussion and asked members to verify these. This helped to ensure that I generated findings that were grounded firmly in the data, not from my imagination (Tobin & Begley, 2004). This is an important element in recognizing the multiple realities which make up the naturalistic enquiry methods.

Triangulation refers to the use of multiple sources of data within this study. I employed three methods of data collection to enhance the completeness of data. While the questionnaire surveys gave general views of parents and adolescents in relation to sex and sex education, a qualitative approach with focus groups and in-depth-interviews provided a deeper and more multifaceted insight into socio-cultural or education barriers that may

prevent parents from teaching sex education to their adolescents. These three elements act like the pieces of a jigsaw which, when combined, provides the whole picture of the phenomena being studied (Casey & Murphy, 2009).

Debriefing by peers is one of the strategies to ensure credibility (Lincoln & Guba, 1985). Throughout the research process, I had regular meetings with my supervisory team in relation to my experiences concerning particular aspects of research design, data collection and data analysis. I also presented my research proposal and preliminary analyses to academic peers at local research seminars and international conferences whenever possible. The suggestions and critiques from peers helped me to redirect and enhance the research process and to confirm my merging conclusions.

Transferability

Transferability refers to the wider application of the research results. Transferability can be achieved by providing the thick description necessary to enable someone interested in this study to decide whether the participants, their circumstances, and the environment in which the study took place are comparable to the setting of the reader and so whether they can apply the findings to their own area of practice. The methods of data collection and the analytic process were made very clear. I also provide as much information as possible of all decisions made throughout my research so that other researchers can judge my findings by following the process of my research.

Dependability

Dependability is demonstrated through logical, traceable, and clear documents. It is displayed by fairness of representation, and examines the product from point of accuracy.

Translation checks also added to dependability. They were carried out on samples of the text by the field supervisor and two bilingual academics.

Confirmability

Confirmability is concerned with establishing that data and ‘interpretations of the findings were not figments of the inquirer’s imagination’ (Tobin & Begley, 2004). It is enabled by maintaining a clear audit trail throughout the study, showing that findings were derived directly from the data. This required that I presented enough information for others to see how the raw data led to its interpretation, supported by the data collected.

Authenticity

Authenticity is the criterion for judging processes and outcomes of naturalistic inquiries (Guba & Lincoln, 2005). The ‘fairness’ of the research is demonstrated by presenting the voices of the researched as quotations in the text. This display of quotations in the text had to be balanced in terms of distribution and representation. Within this study authenticity of many parent responses was also demonstrated by the careful keeping of Thai proverbs used in the original text, this added a strong flavour of authenticity by keeping as closely to the roots of the original data as possible.

Finally, the provision of reflexive accounts of the data collection and analysis processes demonstrated my own journey as a researcher through the process of the research and added a further angle to the ‘authenticity’ of the research.

4.9 Data analysis

Data analysis in this research consisted of initially analysing the quantitative and qualitative data separately. There were two stages of data analysis in the triangulation mixed methods concurrent design. The first stage was the separate methodology-specific analysis and the second stage was the data analysis within the triangulation mixed-methods design. Stage one provided quantitative and qualitative results that involved coding, theme development, and the interrelationship of themes in the qualitative approach, and descriptive and inferential analysis for quantitative data analysis.

4.9.1 *Quantitative data analysis*

For quantitative data analysis, I used the steps of ‘preparing the data for analysis, exploring the data, and analysing the data’ (Creswell & Plano Clark, 2007, page 129).

Preparing the data for analysis

This step included scoring the data by assigning numeric values to each response, cleaning the database, recording items on instruments with inverted scores or computing new variables that comprise multiple items from scales, and establishing a codebook that lists the variables and variable numbers. Before conducting the data analysis, all the variables were screened to build an honest data analysis (Tabachnick & Fidell, 2007) in following steps:

- The major descriptive statistics such as minimum and maximum values, means and standard deviations were calculated by SPSS in order to check briefly the range and distribution of the variables.

- Missing data was checked in terms of amount and the pattern of missing data.

Screening all data found no missing data in both 79 parents and 79 adolescents.

Exploring the data

This process focused on inspecting the data and conducting a descriptive analysis.

Demographic data were analysed by using descriptive statistics for percentage, mean, and standard deviation.

Analysing the data by using inferential statistics

This quantitative part did not aim to test a specific hypothesis. However, some parts of the questionnaires provided answers in rating scales that meant I could use inferential statistics to test the correlation and comparison between variables. For this process I used SPSS version 15 to test inferential statistical significance that can apply to different types of situation.

Checking the normality of variables or items is one of the important assumptions of parametric tests. I used various ways to test the normality of variables such as visually by looking at the shape of a distribution that is characterised by the bell-shaped curve; the skewness and kurtosis statistics accepted for normal distribution when z-scores of skewness and kurtosis of data were below the upper threshold of 1.96 ($p < 0.05$); and the Kolmogorov-Smirnov test is the way to compare the scores in the sample to a normal distribution. If the test is non-significant ($p > 0.05$) that means the sample distribution is not significantly different from a normal distribution (Field, 2009), as shown in Appendix F.

In addition, before using parametric statistical tests I considered that data should be measured at least at interval scale, the data from different participants are independent, and the 'homogeneity of variance' that the variance of one variable should be stable at all levels of the other variable (Field, 2009). The variances in different groups are equal.

Correlation test

The importance of the use of the correlation coefficient is to understand the relationship among variables and point out the direction of a relationship to help me better understand what two different outcomes of variables share with one another. In this study, the positive correlation between variables among the knowledge of sex-related issues and attitudes of the importance of using condoms for prevention of any risks means they tend to go together and it is important that a good knowledge might promote the awareness of importance of using condoms and might set the stage for avoiding any sexual risks when having sex. In this study, the assumptions of parametric test were tested before using Pearson Product Moment Correlations to assess the relationships among variables.

The comparison test

Parametric statistics were used to compare mean, standard deviation of variables of adolescents and parents. The variables at interval or ratio level were tested for normal distribution before using parametric statistic to test significance. Independent t-tests were used to compare means of variables in two groups: to examine the difference between genders of adolescents with the means of the knowledge of prevention, and the awareness of importance of using condoms. In addition, the t-test was used to compare means of the attitude of parents towards teaching sex education in family with gender of parents.

4.9.2 Qualitative data analysis

Although there is a considerable body of guidelines on general qualitative data analysis (Miles & Huberman, 1994; Boyatzis, 1998; Cresswell, 2007), the strategies used in qualitative analysis are complicated and have been provided in various forms (Miles & Huberman, 1994; Bogdan & Biklen, 2007). Thematic analysis is one of qualitative analysis methods which aims to search for themes or patterns and is widely used in many disciplines, especially in psychology and nursing (Braun & Clarke, 2006).

Thematic analysis

Thematic analysis is ‘a method for identifying, analysing, and reporting themes within data’. It describes the rich details of the data set (Braun & Clarke, 2006). Many authors have demonstrated the analytic process in terms of qualitative data analysis in different stages aimed to identify themes.

Miles and Huberman (1994) demonstrated that the analytic process consists of data reduction, which involves organizing data for coding, data display which is used for reflecting of evidence through matrices forms and networks, as well as conclusion drawing and verification which is the stage for establishing the important meaning and concepts emerged from raw data. These processes can be divided into nine steps, comprising ‘sketching ideas, taking notes, summarise field notes, working with words, identify codes, reduce codes into themes, count frequency of codes, relating categories, and comparing data by displaying data’ (Mile & Huberman, 1994 cited in Cresswell, 2007, p 149).

Creswell and Plano Clark (2007, page 129) presented five main steps of qualitative data analysis. There are 'preparing the data for analysis, exploring the data, analysing the data, representing the data analysis, and validating the data'.

Cresswell (1998) stated four spiral loops to represent the step of qualitative analysis: the first loop is data management to organise the data and convert the data to suitable text units; then researchers make sense of the whole database, read the transcripts several times, and write memos. The third is identifying themes and reducing them to a small set of themes; the last loop is representing report.

Carney (1990, cited in Miles & Huberman, 1994, page. 92) stated the three ladders of analytical abstraction: the summarising and packaging step included creating a text; then focusing on identifying themes by searching the relationship of data from memos; the third step is developing and testing propositions to construct framework. Braun and Clarke (2006, page 87) on the other hand describe six phases of thematic analysis: 'transcribing data, coding, searching for themes, reviewing themes, defining themes, and producing the report'.

Why thematic analysis was used in this study

My reasons for using thematic analysis to identify themes grounded in the qualitative data include:

- The goal of the qualitative element was to understand the phenomena in reality about people's perception in sex related issues.
- Thematic analysis allowed me to understand the data in terms of a representation of facts, providing knowledge, or new insights. In this study, I did the qualitative data

analysis to identify the themes across all the data sources from focus groups and in-depth interviews from parents and teenagers. The questions used in focus groups and interviews have not directly influence the eventual themes because I wanted to interpret the meaning of the data by listening to the voices and experiences of the researched without trying to fit it into the specific questions. This ‘inductive’ form of thematic analysis tends to provide a rich description of data. The aim is to condense and describe the phenomena under study. The outcome of analysis is conceptual, categories, or themes that can be used to explain the phenomena (Miles & Huberman, 1994; Boyatzis, 1998).

- Thematic analysis is a flexible data analysis strategy. This flexibility was important as it allowed me to shape its use to suit my specific research. I reviewed the process of thematic analysis as described by many authors and found that although the specifics of the process may vary from author to author depending on their ladders or loops used, the outline process is the same in many respects (see Table 4.3). This approach emphasises the analytic procedure, data from multiple data sources, the similarities of the process of analysis consists of preparing data, analysing data, and establishing key themes (Miles & Huberman, 1994; Braun and Clarkes, 2006; and Creswell & Plano Clark, 2007).

I established key themes on the basis of thematic analysis methods using a combination of methods , from Miles and Huberman (1994), Braun and Clarkes (2006) and Creswell and Plano Clark (2007) to analyse qualitative data in six steps as follows (see Figure 4.1).

This study collected qualitative data in Thai language, however the process of data analysis and the writing-up of the thesis had to occur using English. The data analysis processes in the literature ignore one major factor that is of importance in my work and that is the role

of translation and verification of translation therefore I have included step 2 as an additional part of the analysis process.

1. preparing and exploring the data for analysis
2. translation and verifying translation
3. coding,
4. data display,
5. themes and categories,
6. representing the data analysis

Table 4.3: Qualitative Data Analysis Strategies by Authors

General Data Analysis Strategies by Authors			
Carney (1990, cited in Miles & Huberman, 1994, page. 92)	Miles and Huberman(1994)	Braun and Clarke (2006)	Creswell and Plano Clark (2007, page. 129)
Preparing and exploring the data for analysis			
1. Summarizing and packaging - Creating a text to work on: reconstruction of interview tapes as written notes, synopses of individual interviews	1. Sketching ideas by writing margin notes in fieldnotes 2. Taking notes by writing reflective passages in notes 3. Summarise field notes by drafting a summary sheet on field notes 4. Working with words by making metaphors	1. Transcribing data: reading and re-reading the data; noting down initial ideas and marking ideas for coding. Interpretative skills needed to analyse the data (Lapadat and Lindsay, 1999).	1. Preparing the data for analysis: organising documents and visual data; transcribing text; preparing the data for computer analysis 2. Exploring the data: reading through the data; writing memos; developing qualitative codebook
Data display			
	5. Display data by making contrasts and comparisons		
Coding			
- Trying out coding categories to find a set that fits: coding of data, writing of analytical notes on linkages of various frameworks of interpretation	6. Identify codes by - writing codes, memos 7. Count frequency of codes	2. Generating initial codes: This phase produces codes from the data, collating data relevant to each code.	3. Analysing the data: reducing the data in groups; coding the data; assigning labels to codes
Themes and categories			
2. Repackaging and aggregating the data: identifying themes and trends in the data overall; searching for relationships in the data by writing analytical memos. 3. Developing and testing propositions to construct and explanatory framework: - Testing hypotheses and reducing the bulk of the data; - Delineating the deep structure: synthesis by integrating the data into one explanatory framework	8. Reduce information by noting patterns and themes 9. Relating categories by factoring, noting relations among variables, building a logical chain of evidence	3. Searching for themes: to analyse codes and create themes 4. Reviewing themes: to clarify themes in relation to the coded extracts and generating a thematic map of the analysis. 5. Defining and naming themes: to refine the specifics of each theme, and clear definitions 6. Producing the report: the report must provide sufficient evidence of the themes within the data	- Grouping codes into themes or categories; Interrelating themes or categories or abstracting to smaller set of themes 4. Representing the data analysis: representing findings in discussions of themes or categories; presenting visual models, figures, tables 5. Validating the data: using researcher, participant, and reviewer standards; employing validation strategies (member checking, triangulation, peer review)

The process of thematic analysis in this study

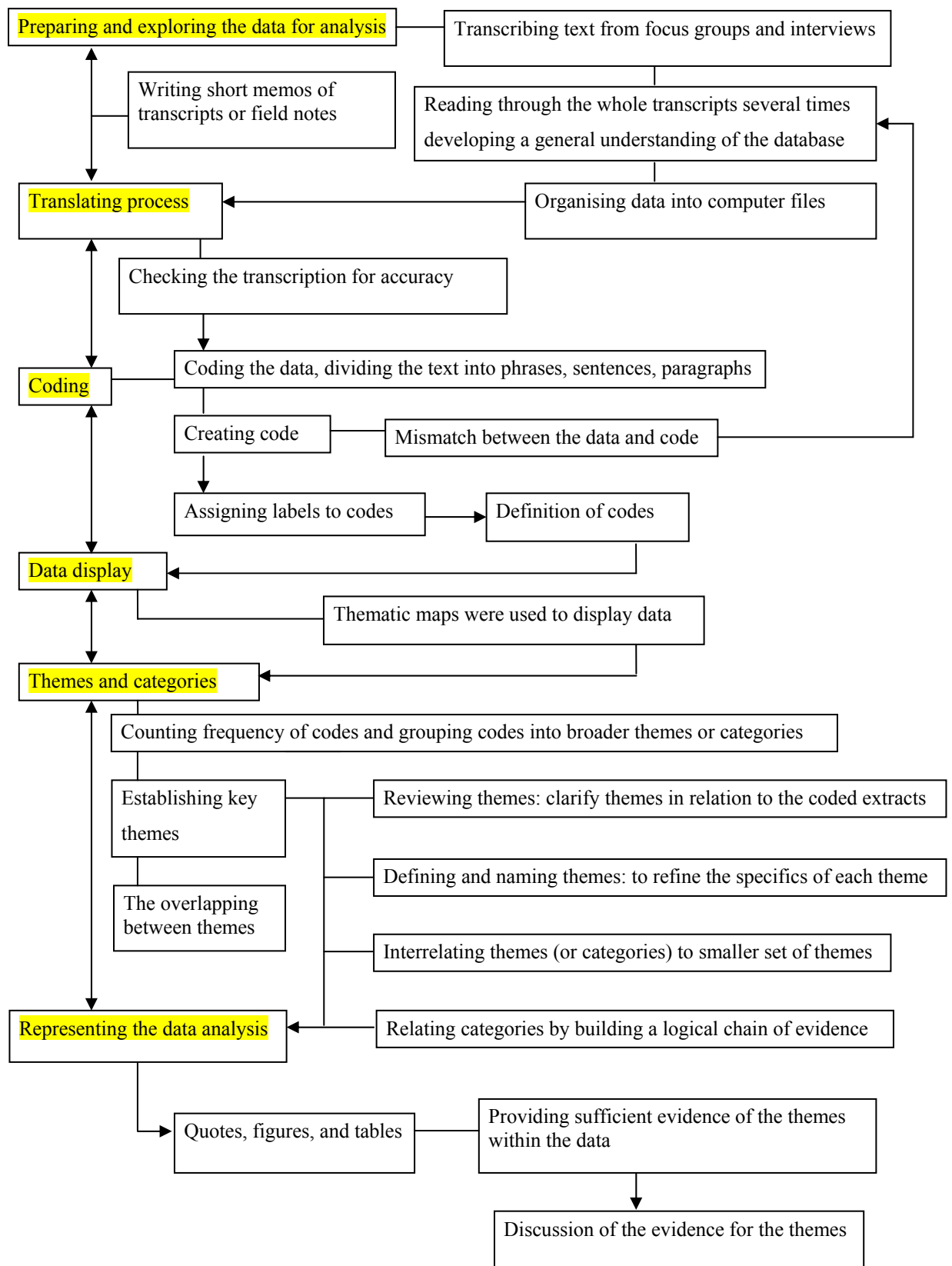
Figure 4.1 displays the process of thematic analysis in this study comprising six steps. The yellow colours in the left hand side represent the six main steps. The details of how each step was conducted are shown in the boxes of right hand side.

Preparing and exploring the data for analysis

I began to compile information from the multiple data sources: tape recording of focus groups and interviews; and field notes had to be processed before these were available for analysis. In this study, preparing the data was carried out in transcribing data. Transcribing was time consuming and made me become completely involved in the data, and understand and get insight into the data (Pope *et al.*, 2000). I also identified the key ideas and initial patterns from the data (Braun & Clarke, 2006).

The step of transcribing involved the spoken words from focus groups and interviews being transformed into a written form. Informal checks took place at the end of each focus group (Lincoln & Guba, 1985), when I summarised the main points of discussion and asked participants to verify that I had interpreted their responses accurately. After I finished each focus group or interview, I listened to the audio-recordings and compared this data with notes of the assistants' data recorded in field notes taken during the sessions. I wrote short memos as ideas came to me while listening and comparing. Then, I read the whole transcript several times to develop a general understanding of the data. I checked the accuracy of data and organised the data into computer files separately for each focus group and individual interview. I also assigned each focus group and each interview a specific number for the purpose of anonymity.

Figure 4.1: The process of thematic analysis in this study



Translation and verifying translation

The complexity of the qualitative study with non-English speaking participants has been recognised because all data were in Thai, however the report of my thesis needed to be written in English. Twinn (1997), who examined the influence of translation on the validity and reliability of qualitative data, found no significant difference in major categories and themes following careful translation (Chinese / English). The quality of translation process plays a significant role in ensuring that the cross-cultural research results are not rendered less accurate due to errors in translation (Maneesriwongkul & Dixon, 2004). I therefore considered the potential translation-related problems that might affect the trustworthiness of this study.

Twinn (1998) suggested that transcripts should be analysed in the language of interview. So for this study coding and analysis should take place in the Thai language because the advantage of this is that I am familiar with it and the codes and themes will emerge more naturally. However, the disadvantage of this is that the research supervisors cannot follow the process. Therefore, all transcriptions from focus groups and interviews were written in Thai, then they were translated into English and the analysis process took place in the English transcriptions. The process of translation of in this study was very time consuming and resource intensive (Halai, 2007). It involved two steps:

1. I read through the Thai transcripts line-by-line translating them word-for-word into English. My concern with the process was that it was possible to lose valuable nuances of the data. The way in which I have tried to overcome this is with retaining the Thai proverbs or slang used by the interviewees, which illustrate the meaning of what is being expressed by them and add authenticity. This allowed me to demonstrate a robust process and audit trail from the original data to findings and

conclusions, which is important for confirmability. However, the process was extremely time-consuming and at times frustrating.

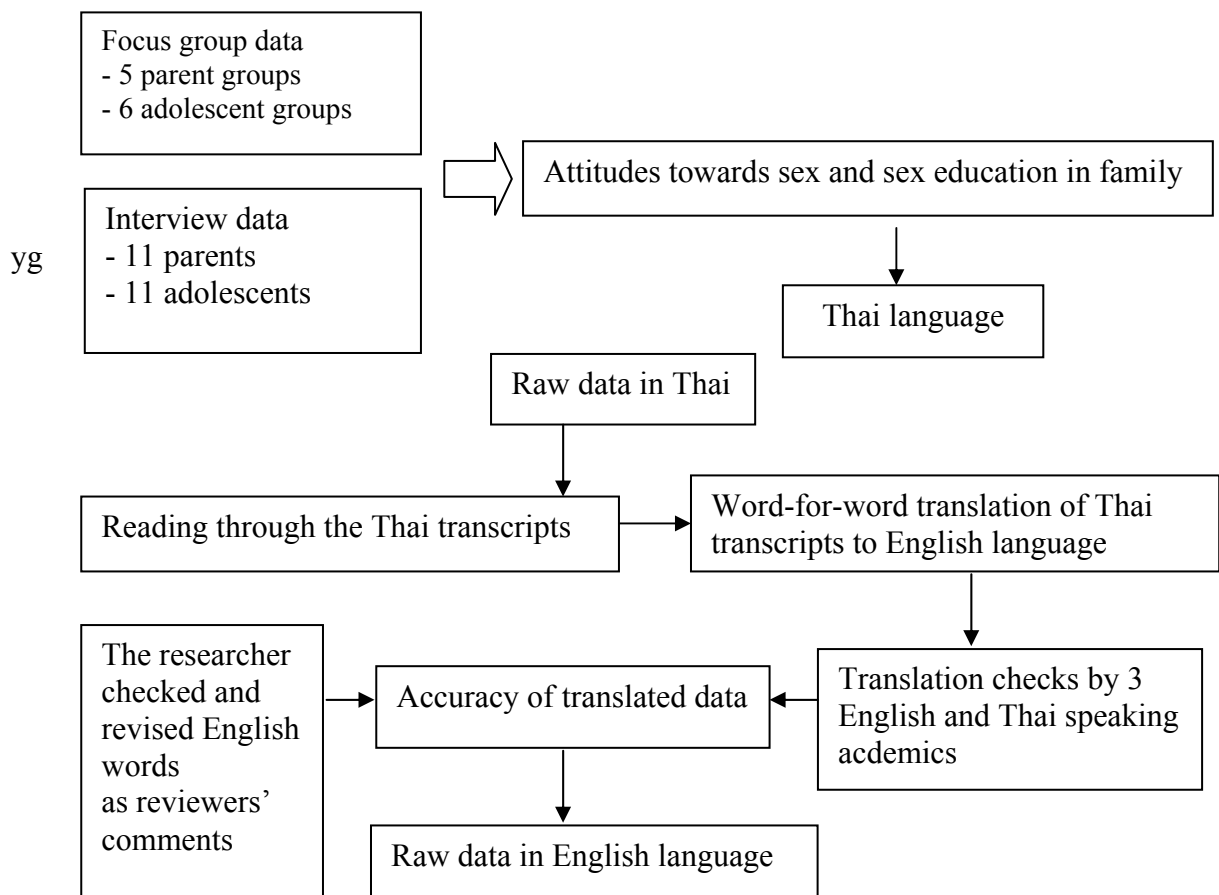
2. Emmel (1998) suggests that checking the correctness of translated transcripts by different researchers was the only way to ensure the accuracy of data. To ensure the accuracy of the translated data, translation checks were carried out by three English and Thai speaking academics. One bilingual native English speaker, who is an expert in Thai language, reviewed and checked the correctness of all transcripts before two English speaking Thai academic health professionals also checked the translations of some transcripts for correctness. In this way translation problems were minimised, ensuring that a word used had the same placement and meanings in both languages (Birbili, 2000; Esposito, 2001). In the process some English words were revised and changed. The diagram of transcribing and translating data of this study is shown in Figure 4.2

This process of coding examines the data in order to identify the list of key issues, ideas, or themes that is interesting from the data (Miles & Huberman, 1994). I preferred analysing qualitative data by a manual technique because it provided me with extra insights during the analytical process, enhancing the closeness between myself as a researcher and the data, and it encouraged my creative thinking when organising the data.

Coding

The process of coding included that I read through data line-by-line several times to search for meanings and patterns (Braun & Clarke, 2006). I repeatedly listened to each audio-recording to deepen my understanding and to generate a wider insight into the data.

Figure 4.2: The diagram of transcribing and translating data of this study



This process of coding is ‘inductive’ or data-driven, it draws only on the data without trying to fit it into an existing theoretical frameworks or the research question. This way provides a richer and more detailed insight into the data (Braun & Clarke, 2006).

Code words were written in the right hand margins of data sheets. The segments of data related to code words were marked with a highlighter. In order to minimize loss of meaning when coding; I quoted data segments related to the codes so that the actual spoken words were kept and complete sentences were maintained. I also read the data that was not coded to ensure that I did not miss some aspects in the data (Coffy & Atkinson, 1996).

Two coders (I and one of my supervisors) coded the same transcript independently, repeating the process. We met to compare and discuss differences in our coding and problems with coding structure. In addition, the first supervisor checked the final codes. As the coding proceeded, codes and definitions were clarified, new codes were added as analysis progressed, and new understanding developed. I re-read the text segment related to a code to gain more awareness of the content of what is said, seeing much more the kind of issues that the participant was concerned with, and reflecting the language used by participants (Bryman, 2004). Coding is hard to do and it took a long time and a great deal of concentration. I spent around three months coding eleven focus groups and twenty-two interviews. Coding process of this study and coding examples were shown in Appendices G1 and G2. These challenges were reflected in my research diary. This extract is dated 22 October 2009:

Difficulties that were encountered in coding step

'I feel very worried, why are my initial codes that I thought were extracted from data too long statements? I do not know how to make it short and more clear in its meaning and to reflect better the voice of the participants'. Many questions come up to my head. 'What is wrong with my codes? If I did the wrong codes how to correct the right?'

I looked back to the same transcripts and listened again to the audio-recordings. I spent time to read articles and textbooks about how to code data in qualitative research. I learned from it and I met regularly with my supervisors. I had learned that codes should be specific words, which are significant and meaningful, representing the views of the participants. I have certainly developed a better idea on how to code for constructing concepts.

20 November, 2009

'I learned how to code step by step and I was able to code data from my translated transcripts. However, sometimes I was not be able to do it. Some of the phases that participants used are slang or proverbs to describe phenomena. For example: when I asked parents about their attitudes to premarital sex while a teen. One of participants said to me 'having daughters like a having a toilet in the front yard '. I asked myself many times what they want to tell me?'

I needed to return to the tape recording repeatedly and listen to them again and again to make sense of them and recognise the exact meanings of these words. Another problem I faced in the coding process was that I sometimes found it hard to find the words which represented most accurately the data's true meaning. I had to read through the surrounding data of participants' comments, not only focussing on only the individual sentence. These considerations deepened my understanding and the analysis, as shown in Table 4.4.

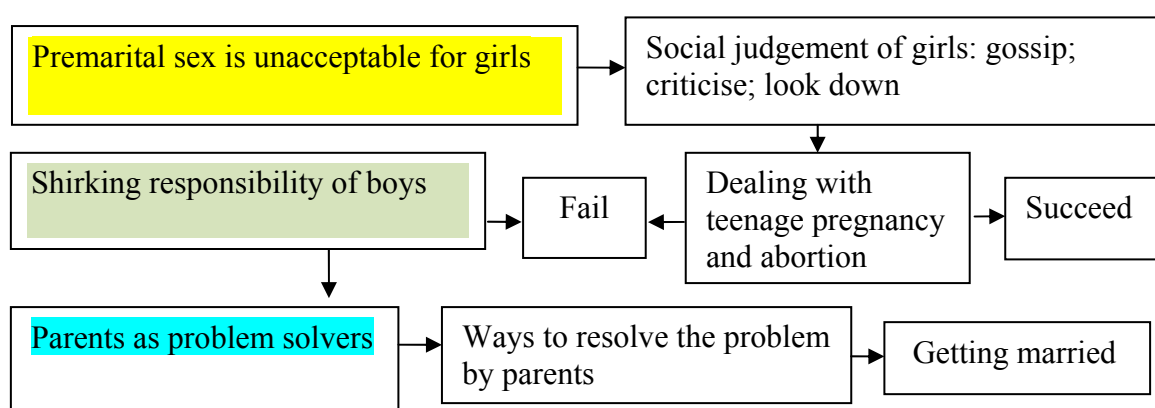
Table 4.4: Codes from data extract

Data extract 'I commonly do <u>not</u> use a condom when having sex with my girlfriend. I don't worry about anything because <u>having sex one time cannot lead to any problems</u> '. (P1N, boy)	
Code	Meaning
An early code: 'not using a condom when having sex for male teens'	This code emphasised meaning only that teens lack of using contraception when having sex.
A new code: 'consideration of risks when having sex'	The code gave the meanings of the reason and the problems of having sex without condoms.

Data display

Data display concerns the presentation of information. In this study, the data was displayed in a network (see Figure 4.3) to help me understanding the flow, location and connection of events and identifying emerging themes. This step began when all data from focus groups and in-depth interviews had been coded and I had many different codes across the data set. I started to consider how codes combine to overarching themes. This technique provided me with a way of drawing and verifying conclusions. The researcher will generate meaning from ‘descriptive to explanatory and from the concrete to the conceptual and abstract’ (Miles & Huberman, 1994, page. 245). Based on thematic analysis, a manual technique was used to establish key themes. With help of my supervisors I clarified themes in relation to the coded extracts, refined the specifics of each theme and gave clear definitions and names for each theme. My supervisors and I met regularly to consider and clarify these themes (debriefing by peers) and discuss any coding issues. I chose extracts to support the themes selected to present the findings. This step involved reviewing and refining themes. This was difficult because I wanted to include all the extracts and I needed to develop a technique to appropriately select quotes.

Figure 4.3: Data display by network



Themes and categories

The thematic map was used to demonstrate the relationship between themes and codes as shown in Chapter 6, which had shown four themes in relation to the coded extracts. This step began when I had whole themes identified from data extracts. Verbatim quotes, figures, and tables were used to present the findings for the themes or categories in order to show a clear link to the original data.

4.9.3 Data analysis within the triangulation mixed methods design

Triangulation involved merging two datasets, quantitative data (questionnaire surveys) and qualitative data (focus groups and in-depth interviews), together to develop a complete understanding and to compare the different results (Creswell, 2008). Drawing results together between quantitative and qualitative findings that demonstrates how the two data streams complement each other is the unique aspect of triangulation mixed methods. Creswell and Plano Clark (2007) outline two techniques for merging the quantitative and qualitative data; data transformation and comparisons through a matrix or discussion.

In the first step of merging two data sets of this study, I started to look for any issues or concepts that were found within both approaches. This study addressed the research questions and provided the findings in 3 main ways: the unique quantitative findings; the unique qualitative findings; and the findings that were demonstrated from both quantitative and qualitative data. Two issues were addressed by both data strands (see Table 4.5).

These were:

- The awareness of importance of using condoms in adolescents' perspective
- The attitudes of parents in relation to sex and sex education

In the second step, I considered the consequences of having different sample sizes when merging two data sets. It is quite common for different sample sizes in mixed methods because quantitative and qualitative data are collected for different purposes. Therefore, I compared and discussed the similarities and differences of qualitative and quantitative results. Focusing on how the qualitative data ‘quotations’ linked together with the quantitative ‘numeric’ results and provided mutual confirmation of results (Creswell & Plano Clark, 2007).

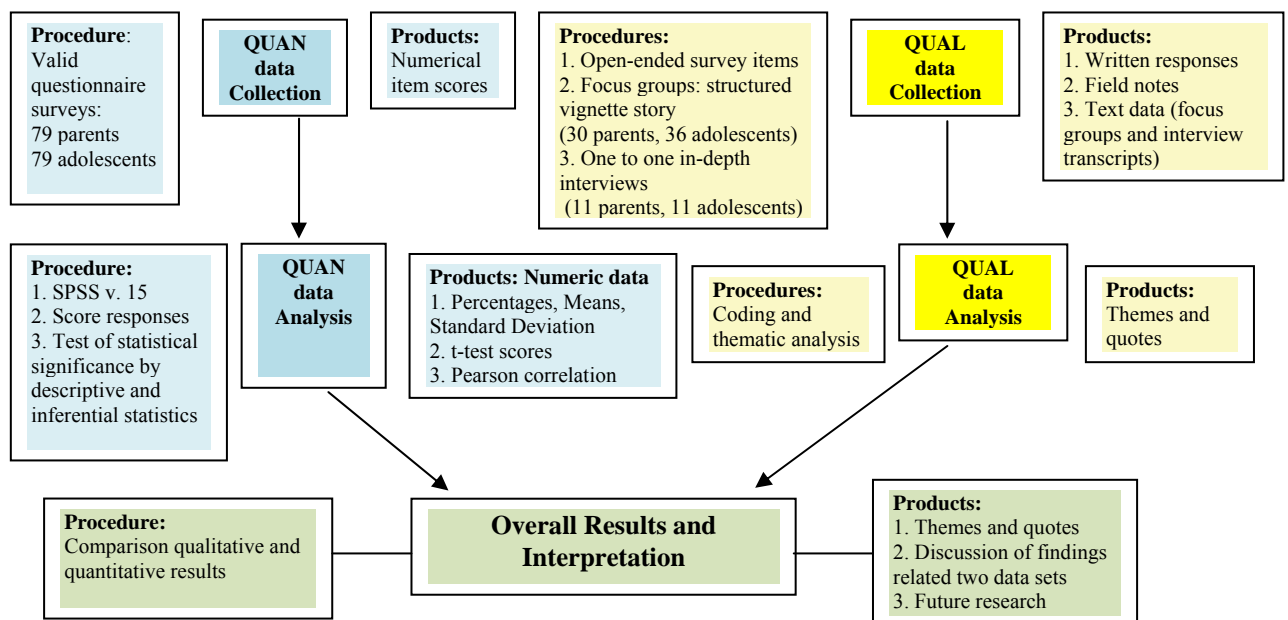
Table 4.5: The issues were addressed by quantitative and qualitative approaches

Quantitative part: the survey data	Qualitative part: Themes from the focus groups and interviews
The awareness of importance of using condoms in adolescents’ perspective (11 items)	<ul style="list-style-type: none"> • Sex happens
The attitudes of parents in relation to sex and sex education (10 items) 1. Sex education induces adolescents to decide to have sexual experiences.	<ul style="list-style-type: none"> • Talking about sex is difficult - Sex education leads to experimentation
2. Teaching about contraception increase the likelihood of sexual relationships in adolescents.	
3. It is necessary to talk about sexual health with children when they are adolescence.	- Inappropriate age for sex education
4. It is embarrassing when talking about sexual health with children.	- Embarrassment
5. Sex and relationship should be taught at school.	- Sex education is the duty of schools
6. Adolescents should not have boyfriend or girlfriend.	<ul style="list-style-type: none"> • The influence of traditional Thai society persists - Restrictions imposed by traditional Thai culture
7. Parents should punish their children if they have sexual relationships.	
8. Parents should be the first people to teach their children about sex and relationships.	<ul style="list-style-type: none"> • Talking about sex is difficult - Parents as providers of sex education
9. Children can talk and discuss all matters including sex related matters with parents.	
10. There should be reproductive health services available to adolescents.	<ul style="list-style-type: none"> • <u>Towards the future</u> - Providing necessary resources for teenagers

Contradictory findings may emerge during a triangulation mixed-methods design when the quantitative and qualitative results do not agree. There may be a minor or a major difference in the results and the differences may be difficult to resolve, potentially requiring the collection of additional data to bridge the gap (Cresswell & Plano Clark, 2007). I needed to return to the initial database for more insights after some contradictory finding emerged.

The overall of triangulation mixed methods design of this study is shown in Figure 4.4. This visual diagram displayed how I have used two data collection and analysis procedures separately as independent quantitative and qualitative strands before bringing the two together within a single overall results and interpretation section.

Figure 4.4: Visual diagram for the triangulation mixed methods design of this study



(Visual diagram based on Jenkins, 2001 cited in Creswell and Clark, 2007. *Designing and Conducting Mixed Methods Research*).

4.10 Dissemination

The study's findings were disseminated through feedback to the participants; by presentations at university level at a postgraduate student conference and at professional conferences in Thailand, the United Kingdom and Germany in 2010. Furthermore, individual aspects of the results were published in peer-reviewed journals in 2010.

The data originated from the questionnaire surveys of parents and adolescents will be presented in the chapter 5.

CHAPTER 5

SURVEY FINDINGS

Introduction

The previous chapter presented and discussed methodology and methods employed within this study. Data collection began with a survey of parents and teenagers in three villages which took place in October 2008 to March 2009. The aim of the cross sectional survey was to gather data to address two primary research questions:

1. What are the existing knowledge and attitudes of adolescents in relation to sex and sex education in Udon Thani, Thailand?
2. What are the existing attitudes of parents in relation to sex and sex education in Udon Thani, Thailand?

A cross sectional survey was considered the most appropriate tool for obtaining relevant information as described in chapter 3 (section: data collection). Validated questionnaires (Vuttanont *et al.*, 2006) were used to collect data with Thai adolescents and parents within three villages in Udon Thani, Thailand. Although this is a largely descriptive study the survey enabled the exploration of relationships between variables but did not seek to identify cause and effect or to predict. This is the reason why I have not stated a specific hypothesis for the study.

This chapter presents the overall findings of the statistical analysis using descriptive and inferential statistics. The findings of the questionnaire surveys, which 79 teenagers and 79 parents had completed, are presented in three sections:

1. The descriptive statistics for demographic characteristics of the participants
2. The descriptive findings of the knowledge and awareness of sexual health
3. The correlations and comparisons of the knowledge and awareness of sexual health

5.1. Demographic characteristics of the participants

Descriptive statistics were employed to summarise demographic characteristics and all outcome variables. Mean and standard deviations were used with interval and ratio variables to describe the central tendencies and spread of the data, whereas frequencies and percentages were used for categorical variables of responses.

5.1.1 Demographic characteristics of teenagers

In order to establish the characteristics of the 79 teenage participants of both sexes aged 15 to 18 years they were asked questions which determined their gender, age, educational levels, religion, and family background. The findings showed forty-eight teenage respondents (60.8%) were female and 31 were male (39.2%), the mean age was 16 years. The respondents were studying at a variety of levels. Nearly a third, 23 of respondents (29.1%) were studying at the ninth grade, 11 teenagers were in vocational training (13.9%), and eight teenagers were not studying (10.1%). The majority, 76 of teenage respondents (96.2%) studied in mixed sex schools. Only four of respondents (5.1%) planned to study at undergraduate level after finishing high school. Most respondents, 57 of them (72.2%) studied at schools which were not run by a particular religion. All participants were Buddhists, and 36 of them (45.5%) attended religious services at least once a month. Forty-eight teenagers of both sexes (60.8%) stated that religion was

important in their life. Seventy-two respondents (92%) lived in the same household as their mothers and 63 of them (86%) lived in the same household as their fathers. Nearly half of respondents of both sexes had grandfathers or grandmothers who lived with them, as shown in Table 5.1-5.2.

Table 5.1: Characteristics of teenagers

	Male teens (n=31)		Female teens (n=48)		Total(n=79)	
	n	%	n	%	n	%
Gender	31	39.3	48	60.8	79	100
Age						
15 years old	14	45.2	11	22.9	25	31.6
16 years old	8	25.8	19	39.6	27	34.2
17 years old	4	12.9	8	16.7	12	15.2
18 years old	5	16.1	10	20.8	15	19.0
Mean	16		16.35		16.22	
SD	1.25		1.06		1.09	
Education levels						
9 th grade	14	45.2	9	18.8	23	29.1
10 th grade	4	12.9	10	20.8	14	17.7
11 th grade	1	3.2	11	22.9	12	15.2
12 th grade	3	9.7	8	16.7	11	13.9
Vocational level	6	19.4	5	10.4	11	13.9
Not studying	3	9.7	5	10.4	8	10.1
Numbers of further years of education that respondents expect to receive						
0 year	3	9.7	5	10.4	8	10.1
1-3 years	17	54.9	18	37.6	35	44.3
4-6 years	10	32.3	22	45.8	32	40.5
>6 years	1	3.2	3	6.3	4	5.1
Religion						
Buddhist	31	100	48	100	79	100
The school run by a particular religion						
Yes	4	12.9	2	4.2	6	7.6
No	22	71.0	35	72.9	57	72.2
Don't know	5	16.1	11	22.9	16	20.2
Type of schools						
Boys and girls	28	90.3	48	100	76	96.2
Only boys	3	9.7	-	-	3	3.8
Only girls	-	-	-	-	-	-
Frequency of attending religious services						
Every day	2	6.5	1	2.1	3	3.8
At least once a week	8	25.9	15	31.3	23	29.1
At least once a month	13	41.9	23	47.9	36	45.5
At least once a year	7	22.6	9	18.8	16	20.3
Never	1	3.2	-	-	1	1.3
Importance of religion in their life						
Very important	14	45.2	17	35.4	31	39.2
Important	17	54.8	31	64.6	48	60.8
Not important	-	-	-	-	-	-

Table 5.2: Family backgrounds

	Male teens (n=31)		Female teens (n=48)		Total(n=79)	
	n	%	n	%	n	%
Father alive						
Yes	30	96.8	43	89.6	73	92.4
No	1	3.2	5	10.4	6	7.6
Mother alive						
Yes	30	96.8	48	100	78	98.7
No	1	3.2	-	-	1	1.3
Extended family in house						
Grandfather/grandmother	14	45.2	22	45.9	36	45.6
Step father/step mother	-	-	1	2.1	1	1.3
Aunt/uncle	1	3.2	1	2.1	2	2.5
Others (brothers; sisters; relatives)	16	51.6	24	50.0	40	50.6
Having older brothers						
Yes	7	22.6	11	22.9	18	22.8
No	24	77.4	37	77.1	61	77.2
Having older sisters						
Yes	9	29.0	13	27.1	22	27.8
No	22	71	35	72.9	57	72.2
Father lives in the same household						
	(n=30)		(n=43)		(n=73)	
Yes	27	90	36	83.7	63	86.3
No	3	10	7	16.3	10	13.7
Mother lives in the same household						
	(n=30)		(n=48)		(n=78)	
Yes	28	93.3	44	91.7	72	92.3
No	2	6.7	4	8.3	6	7.7

5.1.2 Characteristics of parents

Of the 79 parents, 56 were female (70.9%) and 23 were male (29.1%). The mean age was 40 years old. In this group, only 30 of them (38%) were educated to high school level, 37 of mothers (66.1%) graduated the primary school levels. Only one father held a Bachelor's degree. Sixty-five parents (82.3%) worked as farmers and eight parents (10.1%) worked as employees for a variety of businesses. No parents worked in academic or official government posts. Details of parent participants' characteristics are described in Table 5.3.

Table 5.3: Characteristics of parents

	Fathers (n=23)		Mothers (n=56)		Total(n=79)	
	n	%	n	%	n	%
Gender	23	29.1	56	70.9	79	100
Age						
30-35 years	1	4.3	9	16.1	10	12.7
36-40 years	6	26.1	22	39.3	28	35.4
41-45 years	15	65.2	20	35.7	35	44.3
More than 45 years	1	4.3	5	8.9	6	7.6
Mean	41.48		40.05		40.47	
SD	3.26		5.17		4.72	
Status						
Couple	23	100	52	92.9	75	94.9
Single	0	0	0	0	0	0
Widow	0	0	4	7.1	4	5.1
Divorce	0	0	0	0	0	0
Separated	0	0	0	0	0	0
Religion						
Buddhist	23	100	56	100	79	100
Education levels						
Primary school (4 th grade)	6	26.1	20	35.7	26	32.9
Primary school (6 th grade)	5	21.7	17	30.4	22	27.8
Junior high school (9 th grade)	3	13.0	7	12.5	10	12.7
Senior high school (12 th grade)	8	34.8	8	14.3	16	20.3
Vocational level	0	0	3	5.4	3	3.8
Bachelor's degree	1	4.3	0	0	1	1.3
Master's degree	0	0	0	0	0	0
Others	0	0	1	1.8	1	1.3
Occupation						
Agricultural sector	21	91.3	44	78.6	65	82.3
Business/ trade(Local shop)	0	0	6	10.7	6	7.6
Private job	0	0	0	0	0	0
Official staff	0	0	0	0	0	0
Employee	2	8.7	6	10.7	8	10.1
Others	0	0	0	0	0	0

5.2 Knowledge and awareness of sexual health

In the survey for teenagers, the aim was to explore the knowledge and awareness of sexual health of adolescents. The parent's survey aimed to explore the attitudes of parents in relation to sex and sex education. The questions for parents were asked in one section:

- The attitudes of parents in relation to sex and sex education (10 questions)

The questions for adolescents were asked in four sections:

- Information and knowledge of reproductive health (9 questions)
- Awareness of contraception and condom knowledge (24 questions)
- Ideas about HIV/ AIDS and sexually transmitted infection (11 questions)
- Awareness of health services (9 questions)

‘Somchai’, a boy 14 years old, and ‘Mali’, a girl 14 years old were fictional characters used to ask some questions in part 1 and 2 about situations of the sexual relations between male and female teenagers or for questions about the attitudes of teenagers towards condom use when having sex. This method was used to help teenage participants feel comfortable to answer the questions. It would be impossible to ask participants about their experience in sex directly because the reservation of Thai culture might make it difficult for the researcher to get permission to study. Also it was easier for the teenage participants to focus on questions related to someone other than themselves and therefore not to feel they needed to reveal a great deal of information about their own personal experience at the beginning of the study. This helped to build trust between the researcher and participants.

5.2.1. Information and knowledge of reproductive health

This section included three main parts: whom teenagers talked with about sex and relationships; resources for information and knowledge of reproductive health for teenagers; and sex education at school. The majority of respondents of both sexes reported that they had never discussed sex related issues with their parents. Seventy teenagers of both sexes (88.6%) stated that they had never discussed sex with their fathers while 26 respondents of male teenagers (83.9%) and 31 female teenagers (64.6%) had never talked about sex related issues with their mothers. Small numbers of teenagers of both sexes

reported that they talked often about sex with their mothers, found only one boy (3.2%) and one girl (2.1%). Male teenagers more often discussed sex with their fathers than did female teenagers. The data showed that 18 male teenagers (58.1%) and 21 female teenagers (43.8 %) occasionally talk about sex with friends. They occasionally discussed the subject with doctors or nurses, as shown in Table 5.4.

Table 5.4: Whom teenagers talk to about sex

	Frequency and percent of talking about sex											
	Yes Often				Yes Occasionally				Never			
	Male		Female		Male		Female		Male		Female	
	n	%	n	%	n	%	n	%	n	%	n	%
Mother/Stepmother	1	3.2	1	2.1	4	12.9	16	33.3	26	83.9	31	64.6
Father/stepfather	2	6.5	1	2.1	-	-	6	12.5	29	93.5	41	85.4
Older brother or sister	3	9.7	2	4.2	3	9.7	10	20.8	25	80.6	36	75
Teacher	2	6.5	1	2.1	10	32.3	21	43.8	19	61.3	26	54.2
Boyfriend or girlfriend	3	9.7	1	2.1	8	25.8	16	33.3	20	64.5	31	64.6
Friends of my age	6	19.4	17	35.4	18	58.1	21	43.8	7	22.6	10	20.8
Older friends	6	19.4	1	2.1	8	25.8	13	27.1	17	54.8	34	70.8
Doctor	-	-	-	-	2	6.5	5	10.4	29	93.5	43	89.6
Nurse	-	-	-	-	2	6.5	4	8.3	29	93.5	44	91.7

5.2.2 Resources for information and knowledge of reproductive health

The teenagers were asked to identify the top three sources of information related to six topics. Mothers were the most important resource for teenagers of both sexes about the body changes in girls and how girls should act in relationships with boys. Teachers were the most important source of information about where eggs and sperm are made and how pregnancy occurs, as shown in Table 5.5.

Table 5.5: Information resources for knowledge of reproductive health

	Frequency and percent of the most important resource																							
	Teacher		Mother		Father		Brother		Sister		Family members		Friends		Doctor/nurse		Book/magazines		Films/videos		Internet		Nobody	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%
Bodily changes in boys																								
Male	4	12.9	6	19.4	4	12.9	1	3.2	-	-	3	9.7	10	32.3	1	3.2	1	3.2	1	3.2	-	-	-	-
Female	5	10.4	15	31.3	7	14.6	6	12.5	-	-	1	2.1	8	16.7	2	4.2	-	-	1	2.1	3	6.3	-	-
Bodily changes in girls																								
Male	4	12.9	8	25.8	3	9.7	-	-	2	6.5	-	-	7	22.6	2	6.5	2	6.5	3	9.7	-	-	-	-
Female	3	6.3	26	54.2	1	2.1	-	-	4	8.3	1	2.1	6	12.5	3	6.3	-	-	2	4.2	2	4.2	-	-
A boy want to know where eggs and sperm are made and how pregnancy occurs																								
Male	11	35.5	1	3.2	2	6.5	1	3.2	-	-	1	3.2	3	9.7	8	25.8	2	6.5	1	3.2	1	3.2	-	-
Female	17	35.4	8	16.7	2	4.2	2	4.2	-	-	1	2.1	5	10.4	7	10.4	-	-	1	2.1	4	8.3	1	2.1
A girl want to know where eggs and sperm are made and how pregnancy occurs																								
Male	12	38.7	4	12.9	1	3.2	-	-	-	-	-	-	3	9.7	7	22.6	2	6.5	1	3.2	1	3.2	-	-
Female	14	29.2	13	27.1	-	-	-	-	1	2.1	2	4.2	3	6.3	8	16.7	-	-	1	2.1	5	10.4	1	2.1
A boy want to know how should act in a relationship with girls																								
Male	6	19.4	3	9.7	3	9.7	2	6.5	-	-	-	-	5	16.1	5	16.1	2	6.5	2	6.5	3	9.7	-	-
Female	5	10.4	9	18.8	1	2.1	10	20.8	1	2.1	1	2.1	11	22.9	2	4.2	2	4.2	3	6.3	3	6.3	-	-
A girl want to know how should act in relationships with boys																								
Male	2	22.6	8	25.8	1	3.2	-	-	2	6.5	-	-	5	16.1	3	9.7	1	3.2	2	6.5	2	6.5	-	-
Female	4	8.3	15	31.3	-	-	1	2.1	6	12.5	2	4.2	6	12.5	5	10.4	3	6.3	3	6.3	2	4.2	1	2.1

5.2.3 Sex education at schools

Teenagers were also asked about the topics of sex education that they had received from their schools. Most teenagers reported that they had not received sex education at school with the exception of the topics of how bodies develop, HIV/AIDS, and sexually transmitted diseases which most female teenagers stated that schools provided for them many times. More female teenagers recalled that schools provided sex education for them than male teenagers, with the exception of the topic of sexual feelings and emotions that more male teenagers recalled (shown in Table 5.6).

Table5.6: Sex education topics provided by schools

	Frequency and percent of teenagers									
	No		Yes, once		Yes, a few times		Yes, many times		Do not remember	
	n	%	n	%	n	%	n	%	n	%
How to act in a relationship										
Male	15	48.4	3	9.7	2	6.5	7	22.6	4	12.9
Female	18	37.5	4	8.3	7	14.6	13	27.1	6	12.5
Sexual feelings and emotions										
Male	10	32.3	3	9.7	4	12.9	7	22.6	7	22.6
Female	17	35.4	8	16.7	10	20.8	8	16.7	5	10.4
How our bodies develop										
Male	3	9.7	3	9.7	5	16.1	7	22.6	13	41.9
Female	5	10.4	6	12.5	11	22.9	23	47.9	3	6.3
Pregnancy and having a baby										
Male	14	45.2	1	3.2	9	29	3	9.7	4	12.9
Female	23	47.9	3	6.3	11	22.9	10	20.8	1	2.1
Contraception										
Male	11	35.5	3	9.7	6	19.4	6	19.4	5	16.1
Female	16	33.3	7	14.6	10	20.8	14	29.2	1	2.1
How to use a condom										
Male	11	35.5	2	6.5	9	29	6	19.4	3	9.7
Female	18	37.5	2	4.2	16	33.3	12	25	-	-
Abortion										
Male	17	54.8	7	22.6	1	3.2	-	-	6	19.4
Female	27	56.3	8	16.7	9	18.8	3	6.3	1	2.1
HIV/ AIDS										
Male	13	41.9	2	6.5	8	25.8	3	9.7	5	16.1
Female	16	33.3	-	-	9	18.8	23	47.9	-	-
Other STIs										
Male	13	41.9	1	3.2	2	6.5	9	29	6	19.4
Female	15	31.3	4	8.3	10	20.8	18	37.5	1	2.1
Being gay										
Male	20	64.5	-	-	4	12.9	2	6.5	5	16.1
Female	21	43.8	9	18.8	8	16.7	8	16.7	2	4.2
Being lesbian										
Male	18	58.1	3	9.7	1	3.2	2	6.5	7	22.6
Female	23	47.9	12	25	4	8.3	9	18.8	-	-
Being bisexual										
Male	12	38.7	2	6.5	8	25.8	1	3.2	8	25.8
Female	20	41.7	8	16.7	8	16.7	10	20.8	2	4.2

The findings on Table 5.6 showed that more female teenagers could remember which topics schools had taught them than male teenagers recalled in all topics. This might be most topics in sex education linked to female's issues such as pregnancy, abortion, fertility that made

female teenagers were more likely to see negative outcomes of unprotected sex and it might be the responsibility of female teenagers rather than male teenagers. Teenagers of both sex stated the topics of HIV/AIDS or STIs had been addressed many times. This reflects Thailand health policies which are aimed at decreasing the prevalence of HIV.

Most teenagers of both sexes stated that schools should provide more classes about the topic of abortion. Teenagers of both sexes, six male teenagers (19.4%) and 12 female teenagers (25%) stated that schools should not have classes about sexually transmitted infections. The topic of how to use a condom was the topic that six male teenagers (19.4%) and ten female teenagers (20.8%) reported they did not need from schools, as shown in Table 5.7.

Table 5.7: Sex education topics that schools should provide

	Frequency and percent of teenagers									
	Should not have classes		About right		Should have fewer classes		Should have more classes		Do not know/ No idea	
	n	%	n	%	n	%	n	%	n	%
How to act in a relationship										
Male	4	12.9	1	3.2	12	38.7	1	3.2	13	41.9
Female	5	10.4	12	25	18	37.5	4	8.3	9	18.8
Sexual feelings and emotions										
Male	-	-	6	19.4	11	35.5	1	3.2	13	41.9
Female	4	8.3	12	25	15	31.3	8	16.7	9	18.8
How our bodies develop										
Male	5	16.1	5	16.1	7	22.6	-	-	14	45.2
Female	9	18.8	8	16.7	20	41.7	4	8.3	7	14.6
Pregnancy and having a baby										
Male	4	12.9	1	3.2	11	35.5	1	3.2	14	45.2
Female	11	22.9	15	31.3	11	22.9	7	14.6	4	8.3
Contraception										
Male	4	12.9	4	12.9	7	22.6	2	6.5	14	45.2
Female	10	20.8	11	22.9	17	35.4	3	6.3	7	14.6
How to use a condom										
Male	6	19.4	3	9.7	10	32.3	2	6.5	10	32.3
Female	10	20.8	12	25	15	31.3	5	10.4	6	12.5
Abortion										
Male	3	9.7	1	3.2	7	22.6	5	16.1	15	48.4
Female	7	14.6	6	12.5	19	39.6	11	22.9	5	10.4
HIV/ AIDS										
Male	4	12.9	2	6.5	10	32.3	2	6.5	13	41.9
Female	12	25	10	20.8	17	35.4	4	8.3	5	10.4
Other STIs										
Male	6	19.4	4	12.9	7	22.6	2	6.5	12	38.7
Female	12	25	14	29.2	15	31.3	2	4.2	5	10.4
Being gay										
Male	-	-	4	12.9	7	22.6	3	9.7	17	54.8
Female	6	12.5	8	16.7	15	31.3	6	12.5	13	27.1
Being lesbian										
Male	1	3.2	1	3.2	8	25.8	5	16.1	16	51.6
Female	6	12.5	9	18.8	14	29.2	6	12.5	13	27.1
Being bisexual										
Male	1	3.2	1	3.2	9	29	3	9.7	17	54.8
Female	8	16.7	7	14.6	16	33.3	4	8.3	13	27.1

The findings from Table 5.7 showed that more male teenagers have no idea or do not know which sex education topics schools should provide. While, female teenagers need more classes

about pregnancy and abortion. These issues might be useful for girls to protect themselves from unwanted pregnancy or illegal abortion.

The top five topics that most teenagers of both sexes, (as stated in the open-ended question), wanted to know more about were: safe sex (17 teenagers, 21.5%); AIDS/ HIV (11 teenagers, 13.9%); sexual relationships (nine teenagers, 11.4%); teenage pregnancy and abortion (eight teenagers, 10.2%); and homosexuality (three teenagers, 3.8%). They would like to gain the knowledge from teachers in most topics, with the exception of the topics of teenage pregnancy and abortion they preferred to receive the knowledge on these issues from health care officials.

Chi-square tests (χ^2) were used to test for difference in demographic features such as comparing proportion of variables with gender, all involved categorical data. The significance level used in all analyses was .05. But when the number of observations obtained for analysis is small (the numbers and percent of cell have expected count less than 5, found more than 20%) Fisher's exact test is a more appropriate form of analysis to compare the proportion because the Chi-square tests (χ^2) may produce misleading results (Field, 2009). In this study, the P value from Fisher's exact test was marked by using 'a' symbol after the P value number, such as .07^a.

There was some evidence to suggest a consistent difference between male and female teenagers' proportion of recall on sex education topics. The Fisher's Exact Test, revealed statistically significant differences between male and female teenagers with more girls than boys recalling receiving sex education at school. For examples, female teenagers were more

likely than male teenagers to recall being taught about how bodies develop ($p=0.00$), HIV/AIDS ($p=0.01$), other sexually transmitted diseases ($p=0.01$), and abortion ($p=0.02$), as shown in Table 5.8.

Table 5.8 Recall of sex education compared by gender

	Frequency and percent of teenagers						χ^2	P value
	Male(n=31)		Female(n=48)		Total(n=79)			
	n	%	N	%	n	%		
How to act in a relationship								
Yes	12	38.7	24	50	36	45.6	1.06	.59
No	15	48.4	18	37.5	33	41.8		
Don't know	4	12.9	6	12.5	10	12.7		
Sexual feelings and emotions								
Yes	14	45.2	26	54.2	40	50.6	2.19	.33
No	10	32.3	17	35.4	27	34.2		
Don't know	7	22.6	5	10.4	12	15.2		
How our bodies develop								
Yes	15	48.4	40	83.3	55	69.6	14.83	.00* ^a
No	3	9.7	5	10.4	8	10.1		
Don't know	13	41.9	3	6.3	16	20.3		
Pregnancy and having a baby								
Yes	13	41.9	24	50	37	46.8	3.51	.19 ^a
No	14	45.2	23	47.9	37	46.8		
Don't know	4	12.9	1	2.1	5	6.3		
Contraception								
Yes	15	48.4	31	64.6	46	58.2	5.42	.07 ^a
No	11	35.5	16	33.3	27	34.2		
Don't know	5	16.1	1	2.1	6	7.6		
How to use a condom								
Yes	17	54.8	30	62.5	47	59.5	4.30	.13 ^a
No	11	35.5	18	37.5	29	36.7		
Don't know	3	9.7	0	0	3	3.8		
Abortion								
Yes	8	25.8	20	41.7	28	35.4	7.25	.02 ^a
No	17	54.8	27	56.3	44	55.7		
Don't know	6	19.4	1	2.1	7	8.9		
HIV/ AIDS								
Yes	13	41.9	32	66.7	45	57	9.73	.01* ^a
No	13	41.9	16	33.3	29	36.7		
Don't know	5	16.1	0	0	5	6.3		
Other STIs								
Yes	12	38.7	32	66.7	44	55.7	9.24	.01* ^a
No	13	41.9	15	31.3	28	35.4		
Don't know	6	19.4	1	2.1	7	8.9		
Being gay								
Yes	6	19.4	25	52.1	31	39.2	9.77	.01* ^a
No	20	64.5	21	43.8	41	51.9		
Don't know	5	16.1	2	4.2	7	8.9		
Being lesbian								
Yes	6	19.4	25	52.1	31	39.2	16.44	.00* ^a
No	18	58.1	23	47.9	41	51.9		
Don't know	7	22.6	0	0	7	8.9		
Being bisexual								
Yes	11	35.5	26	54.2	37	46.8	8.41	.02*
No	12	38.7	20	41.7	32	40.5		
Don't know	8	25.8	2	4.2	10	12.7		

From Table 5.8, more female teenagers recalled more topics. Especially, the topics related to homosexuality where there were statistically significant differences between male and female teenagers. Perhaps, male teenagers might be unwilling to reveal that they did remember being taught these subjects at school because it might not be accepted in this society where homosexuality is taboo. On the other hand, if male teenagers did not recall exactly that means male teenagers might lack knowledge on sex related issues or they might not consider the importance of some of these sexual issues.

5.3 Awareness of contraception and condom knowledge

In order to assess the teenagers' knowledge of prevention of pregnancy, use of condoms, and AIDS, the respondents were asked to state whether they thought eleven statements were true or false. Most questions were used the name of 'Somchai' is a male teenagers and 'Mali' is a female teenagers. Overall, knowledge about prevention of pregnancy, condoms, and AIDS in both genders was not significantly different. However, male teenagers had higher average scores (mean= 7.35, SD=1.68) than female teenagers (mean=7.25, SD=2.06). The mean knowledge score of both genders was 7.29 from a total score 11. The findings indicated that teenagers of both sexes were not very knowledgeable, as shown in Table 5.9.

Table 5.9: Knowledge of prevention of pregnancy, condoms, and AIDS

	Numbers (%) of teenagers who answered questions correctly			P value
	Male (n=31)	Female (n=48)	Total	
Mali can get pregnant on the very first time that she has sexual intercourse	11(35.5%)	23(47.9%)	34(43%)	.28
Somchai can pull out of a girl before he comes (ejaculates), to prevent her getting pregnant	22(71%)	22(45.8%)	44(55.7%)	.03 ^a
They can avoid sex on days when pregnancy is most likely to occur	15(48.4%)	19(39.6%)	34(43%)	.44
Mali can take a pill every day to stop her having a baby	22(71%)	33(68.8%)	55(69.6%)	.83
Mali can have an injection every 2 or every 3 months to stop her having a baby	15(48.4%)	22(45.8%)	37(46.8%)	.82
Somchai can put a condom on his penis before sex to protect a girl getting pregnant	30(96.8%)	47(97.9%)	77(97.5%)	1.00 ^a
Mali can take a pill soon after sex to stop her getting pregnant	7(22.6%)	15(31.3%)	22(27.8%)	.40
Condom can be used more than once for sex	26(83.9%)	41(85.4%)	67(84.8%)	1.00 ^a
People can protect themselves from HIV	31(100%)	44(91.7%)	75(94.9%)	.15 ^a
It is possible to cure AIDS	18(58.1%)	36(75%)	54(68.4%)	.11
People can take a blood test to find out HIV	31(100)	46(95.8%)	77(97.5%)	.52 ^a
Total Score (11)				
Mean	7.35	7.25	7.29	
SD	1.68	2.06	1.91	

^a = P value from Fisher's exact test

Table 5.9 shows 45 teenagers of both sexes (57%) did not think that a girl could get pregnant if it was the first time of sexual intercourse. Only 15 boys (48%) and 19 girls (40%) thought it was possible to avoid having sex on days when a girl is likely to become pregnant.

Seventy-seven teenagers of both sexes (97.5%) agreed that Condoms are an effective way of protecting against sexually transmitted diseases; and they agreed that both sexual partners

‘Mali and Somchai’ could suggest using condoms when having sex. However, nearly half of boys agreed that condoms reduce sexual pleasure. Only five teenagers of both sexes (6.3%) agreed that it would be too embarrassing for a man ‘Somchai’ to buy or obtain condoms, as shown in Table 5.10.

Table 5.10: Condom awareness

	Numbers (%) of teenagers who agreed with the statements			P value
	Male (n=31)	Female (n=48)	Total	
Mali could suggest to Somchai that he use a condom	30(96.8%)	47(97.9%)	77 (97.5%)	1.00 ^a
Somchai could suggest to Mali that he use a condom	28(90.3%)	46(95.8%)	74 (93.7%)	.38 ^a
It would be too embarrassing for someone like Somchai to buy or obtain condoms	3(9.7%)	2(4.2%)	5 (6.3%)	.38 ^a
If Mali suggested using a condom, Somchai might think she did not trust him	5(16.1%)	10(20.8%)	15(19%)	.60
If Mali suggested using a condom, Somchai might think Mali had relationship with others	7(22.6%)	6(12.5%)	13(16.5%)	.24
If Somchai and Mali want to have sex before marriage, they could use condoms	28(90.3%)	42(87.5%)	70(88.6%)	1.00 ^a
Condoms are an effective way of protecting against HIV/AIDS	26(83.9%)	43(89.6%)	69(87.3%)	.50 ^a
Condoms are suitable for steady, loving relationships	20(64.5%)	23(47.9%)	43(54.4%)	.15
Condoms reduce sexual pleasure	13(41.9%)	12(25%)	25(31.6%)	.11
Condoms can slip off the boy and disappear inside the girl's body	7(22.6%)	8(16.7%)	15(19%)	.51
Condoms are an effective way of protecting against sexually transmitted diseases	30(96.8%)	43(89.6%)	73(92.4%)	.40 ^a

^a = P value from Fisher's exact test

The findings on Table 5.10 showed most male teenagers agreed that condoms are an effective way of protecting against STIs, and HIV/AIDS. However, one third of teenagers of both sexes thought condoms reduce sexual pleasure.

Teenagers were asked about the awareness of importance of using condoms when having sex, assessed by asking all teenagers about their level of agreement with eleven statements ranging from 1 to 5. The average mean score for all items for teenagers of both sexes was 3.92, SD=.34, for male teenagers at 3.84, SD=.37 and for female teenagers at 3.96, SD=.33. Female teenagers had higher average mean score (higher levels of agreement) than male teenagers in most topics with the exception of three topics in which more male teenagers agreed with the statements about *importance of using a condom when having sex; condoms protecting against sexually transmitted diseases, and condoms are suitable for steady, loving relationships* than female teenagers. As shown in Table 5.11.

Table 5.11: The average of the awareness of importance of using condoms

	The average of the awareness of using condoms for teenagers					
	Male (n=31)		Female (n=48)		Total (n=79)	
	Mean	SD	Mean	SD	Mean	SD
Mali could suggest to Somchai that he use a condom	4.61	.56	4.73	.49	4.68	.52
Somchai could suggest to Mali that he use a condom	4.42	.67	4.52	.58	4.48	.62
It would it be too embarrassing for someone like Somchai to buy or obtain condoms	3.61	.72	3.90	.72	3.78	.73
If Mali suggested using a condom, Somchai might think she did not trust him	3.39	.92	3.48	1.07	3.44	1.01
If Mali suggested using a condom, Somchai might think Mali had relationship with others	3.16	1.07	3.77	.90	3.53	1.01
If Somchai and Mali want to have sex before marriage, they could use condoms	4.45	.89	4.35	.86	4.39	.87
Condoms are an effective way of protecting against HIV/AIDS	4.23	.99	4.31	.72	4.28	.83
Condoms are suitable for steady, loving relationships	3.68	1.01	3.54	1.15	3.59	1.09
Condoms reduce sexual pleasure	2.74	.93	3.13	.91	2.97	.93
Condoms can slip off the boy and disappear inside the girl's body	3.48	1.12	3.52	1.09	3.51	1.10
Condoms are an effective way of protecting against sexually transmitted diseases	4.52	.57	4.33	.66	4.41	.63
Sum	3.84	.37	3.96	.33	3.92	.34

The findings on Table 5.11 showed that girls might be aware of the importance of using condoms when having sex.

5.4 Ideas about HIV/ AIDS and sexual transmitted infections

The teenagers were asked how to prevent pregnancy by using condoms and prevent infection with AIDS and sexual transmitted infections. A high proportion of teenagers stated that they

had heard of HIV/AIDS, more girls than boys stated that they know where they will get contraceptives. More boys than girls perceived that a condom is an effective method for prevention of pregnancy and had seen a condom. Using a Chi square test to compare the proportion responding yes, no, or don't know with gender using condoms to prevent pregnancy and infection with AIDS, no significant difference was found, as shown in Table 5.12.

Table 5.12: Ideas about condoms and HIV/ AIDS

	Frequency and percent of teenagers						χ^2	P value
	Male(n=31)		Female(n=48)		Total(n=79)			
	n	%	n	%	n	%		
Do you know where you could get contraceptives?								
Yes	19	61.3	31	64.6	50	63.3	1.20	.55
No	4	12.9	9	18.8	13	16.5		
Don't know	8	25.8	8	16.7	16	20.3		
Have you ever seen a condom?								
Yes	29	93.5	43	89.6	72	91.1	.50	1.00 ^a
No	1	3.2	3	6.3	4	5.1		
Don't know	1	3.2	2	4.2	3	3.8		
Is condom an effective method of preventing pregnancy?								
Yes	21	67.7	32	66.7	53	67.1	.44	.93 ^a
No	2	6.5	2	4.2	4	5.1		
Don't know/Not sure	8	25.8	14	29.2	22	27.8		
Have you heard of HIV?								
Yes	29	93.5	48	100	77	97.5	3.00	.15 ^a
No	1	3.2	0	0	1	1.3		
Don't know/Not sure	1	3.2	0	0	1	1.3		
Have you heard of AIDS?								
Yes	30	96.8	48	100	78	98.7	1.57	.39 ^a
No	1	3.2	0	0	1	1.3		
Don't know/Not sure	0	0	0	0	0	0		
Does a person with HIV always look unhealthy?								
Yes	16	51.6	14	29.2	30	38	4.85	.09
No	7	22.6	11	22.9	18	22.8		
Don't know/Not sure	8	25.8	23	47.9	31	39.2		

^a = P value from Fisher's exact test

Interestingly, the previous data (Table 5.10) showed most teenagers agreed that condoms are an effective way to protect themselves from STIs and AIDS. Whereas, the findings on Table 5.12 show one third of teenagers of both sexes were either unsure or stated no to the question 'Is condom an effective method for prevention of pregnancy'.

Only 26 teenagers (32.9%) from the total 79 participants gave answers in open-ended questions about which contraceptive methods teenagers should use when having sex. Eighteen teenagers (22.8%) preferred condoms as the way to protect themselves from unplanned pregnancy; twice as many girls answered this choice than boys. The second priority was the contraceptive pill, found five teenagers (6.3%); and three teenagers answered the injection was the contraception choice for them (3.8%).

Teenagers were asked in the open-ended question about which other methods of contraception they had heard about. Only seven teenagers (8.9%), stated Norplant, six teenagers (7.6%) stated IUD, and three teenagers (3.8%) mentioned tubal resection.

Teenagers were also asked about the diseases that they can catch by having sexual intercourse. Gonorrhoea was the disease that most teenagers, 21 of male (67.7%) and 34 of female (70.8%) reported that they can catch by having sexual intercourses. No respondents of either sex mentioned Chlamydia was a consequence of having sex. Some teenagers of both sexes stated some diseases such as diabetes, malaria, and measles were diseases that they can catch by having sexual intercourse, as shown in Table 5.13.

Table 5.13: diseases that teenagers can catch by having sexual intercourse

	Frequency and percent of teenagers					
	Male (n=31)		Female (n=48)		Total (n=79)	
	n	%	N	%	n	%
Diabetes	2	6.5	3	6.3	5	6.3
Gonorrhoea	21	67.7	34	70.8	55	69.6
Genital warts	3	9.7	5	10.4	8	10.1
Malaria	4	12.9	3	6.3	7	8.9
Syphilis	3	9.7	8	16.7	11	13.9
Chlamydia	-	-	-	-	-	-
Herpes	3	9.7	6	12.5	9	11.4
Hepatitis B	1	3.2	7	14.6	8	10.1
Measles	1	3.2	4	8.3	5	6.3

From Table 5.13, all teenagers of both sexes did not know Chlamydia was one of the sexually transmitted diseases. They might lack knowledge about some sexually transmitted diseases that mean it might be led them less consider to protect themselves from sexually transmitted diseases.

For the open-ended questions about how a boy and a girl know that they have got a sexually transmitted infection 22 teenagers of both sexes (27.9%) responded and most of them stated that blood test was the way to know that a boy or a girl had a sexually transmitted disease.

Teenagers were asked about where their friends could obtain such a treatment, if they needed treatment for sexually transmitted diseases. Most teenagers of both sexes stated that their friend could go to government hospitals or health centres. Only five of them (6.3%) stated that a pharmacy was the place to obtain treatment. Three male teenagers (9.7%) stated that illegal clinics or traditional medicine were appropriate, as shown in Table 5.14.

Table 5.14: knowledge of places of treatment for a sexually transmitted infection

	Frequency and percent of teenagers					
	Male (n=31)		Female (n=48)		Total (n=79)	
	n	%	N	%	n	%
Pharmacy	2	6.5	3	6.3	5	6.3
Private doctor/ nurse/ clinic	19	61.3	29	60.4	48	60.8
Government hospital/ health centre/ clinic	25	80.6	45	93.8	70	88.6
Others (traditional medicine, illegal clinics)	3	9.7	-	-	3	3.8

The findings on Table 5.14 showed most teenagers of both sexes trust the government hospitals as the health care services when they have the problems of STIs.

Open ended questions asked participants about the ways that can help people protect themselves from sexually transmitted diseases. Thirty-two teenagers of both sexes (40.5%) gave answers. Twenty-three teenagers of both sexes (29%) stated that condom use when having sex was the best way to protect themselves from STIs. Three girls stated that avoiding sex was the best way. Interestingly, five teenagers of both sexes (6.3%) stated that pill was the best way for protection of STIs that means some teenagers might lack knowledge on the subject related to STIs.

5.5 Awareness of health services

Using a Chi-square test (χ^2) to compare the proportion of yes, no, or don't know with gender for teenagers' thinking about health care services, nearly half of girls stated that they worried that people who work at health care services will judge them ($p=.01$). Only one of total six topics about the health care service that more male had higher percent than female teenagers was about the less useful of health care service. Fisher's exact test showed more females than

males stated that they do not know what services provide for teenagers ($p=.01^a$), and, as shown in Table 5.15.

Table 5.15: Awareness of health services

	Frequency and percent of teenagers						χ^2	P value
	Male(n=31)		Female(n=48)		Total(n=79)			
	n	%	n	%	n	%		
I don't know where they are								
Yes	5	16.1	16	33.3	21	26.6	4.59	.10
No	15	48.4	13	27.1	28	35.4		
Don't know	11	35.5	19	39.6	30	38		
I don't know what services they provide for adolescents								
Yes	7	22.6	16	33.3	23	29.1	1.45	.49
No	10	32.3	16	33.3	26	32.9		
Don't know	14	45.2	16	33.3	30	38		
They do not have services for adolescents								
Yes	2	6.5	6	12.5	8	10.1	8.74	.01 ^{*a}
No	21	67.7	16	33.3	37	46.8		
Don't know	8	25.8	26	54.2	34	43		
I worry people who work there will judge me								
Yes	4	12.9	21	43.8	25	31.6	8.60	.01 [*]
No	13	41.9	11	22.9	24	30.4		
Don't know	14	45.2	16	33.3	30	38		
I don't think they are very useful								
Yes	12	38.7	13	27.1	25	31.6	1.69	.43
No	10	32.3	22	45.8	32	40.5		
Don't know	9	29	13	27.1	22	27.8		
It is difficult to get to them								
Yes	3	9.7	11	22.9	14	17.7	2.56	.28
No	17	54.8	20	41.7	37	46.8		
Don't know	11	35.5	17	35.4	28	35.4		

^a = P value from Fisher's exact test

The key findings from Table 5.15 showed that more than half of teenagers of both sexes did not have much information about available sexual health services, provided for them, and they did not think health care officials were useful for them. Teenagers might lose opportunities to access and get advice from health care services.

More male than female teenagers reported that they had seen posters about health issues provided in health care facilities. Female teenagers were more aware of having seen posters about smoking than male teenagers. Twenty-five male teenagers (80.6%) reported having seen a poster about condom use whereas; 31 of female teenagers (64.6%) admitted having seen it. Chi-square and Fisher's exact test found no significant difference ($P>0.05$) between gender about the proportion of yes, no, or not sure answer about health information posters, as shown in Table 5.16.

Table 5.16: Posters provided by health care facilities

	Frequency and percent of teenagers						χ^2	P value
	Male(n=31)		Female(n=48)		Total(n=79)			
	n	%	n	%	n	%		
Healthy Eating								
Yes	28	90.3	43	89.6	71	89.9	4.25	.12 ^a
No	0	0	4	8.3	4	5.1		
Not sure	3	9.7	1	2.1	4	5.1		
Smoking								
Yes	24	77.4	40	83.3	64	81	1.67	.44 ^a
No	6	19.4	8	16.7	14	17.7		
Not sure	1	3.2	0	0	1	1.3		
Drugs								
Yes	24	77.4	36	75	60	75.9	.37	1.00 ^a
No	6	19.4	9	18.8	15	19.0		
Not sure	1	3.2	3	6.3	4	5.1		
Alcohol								
Yes	26	83.9	33	68.8	59	74.7	2.08	.40 ^a
No	3	9.7	9	18.8	12	15.2		
Not sure	2	6.5	6	12.5	8	10.1		
HIV/ AIDS								
Yes	26	83.9	35	72.9	61	77.2	2.35	.33 ^a
No	2	6.5	9	18.8	11	13.9		
Not sure	3	9.7	4	8.3	7	8.9		
Contraception								
Yes	22	71	27	56.3	49	62	3.79	.15
No	2	6.5	11	22.9	13	16.5		
Not sure	7	22.6	10	20.8	17	21.5		
Condom								
Yes	25	80.6	31	64.6	56	70.9	2.47	.29
No	3	9.7	7	14.6	10	12.7		
Not sure	3	9.7	10	20.8	13	16.5		
Pregnancy								
Yes	23	74.2	33	68.8	56	70.9	.31	.94 ^a
No	4	12.9	8	16.7	12	15.2		
Not sure	4	12.9	7	14.6	11	13.9		

^a = P value from Fisher's exact test

The findings from Table 5.16 showed that male teenagers might pay attention to the health media, provided by health care offices rather more than girls in most topics.

Male teenagers reported more sexual health problems than female teenagers in every statement. The highest percent was worrying about having sexual intercourse found 13 male teenagers (41.9%) and ten female teenagers (20.8%). For three male teenagers (9.7%) had experienced their girlfriends getting pregnant. Two female teenagers, 4.2% had experienced unwanted pregnancy. Forty-one females had painful periods 85.4%, and 31 females (64.6%) had irregular periods, as shown in Table 5.17

Table 5.17: Sexual health problems or concerns experienced by the sample

	Frequency and percent of teenagers					
	Male (n=31)		Female (n=48)		Total (n=79)	
	n	%	n	%	n	%
For boys and girls						
Worrying about having sexual intercourse						
Yes	13	41.9	10	20.8	23	29.1
No	13	41.9	32	66.7	45	57
Not sure	5	16.1	6	12.5	11	13.9
Getting a Sexually transmitted infections						
Yes	6	19.4	1	2.1	7	8.9
No	22	71	44	91.7	66	83.5
Not sure	3	9.7	3	6.3	6	7.6
Having unusual discharge from your vagina/ penis						
Yes	3	9.7	4	8.3	7	8.9
No	22	71	32	66.7	54	68.3
Not sure	6	19.4	12	25	18	22.8
Concern about size and shape of your vulva/ penis						
Yes	5	16.1	4	8.3	9	11.4
No	19	61.3	34	70.8	53	67.1
Not sure	7	22.6	10	20.8	17	21.5
For boys						
Girlfriend getting pregnant						
Yes	3	9.7				
No	24	77.4				
Not sure	4	12.9				
For girls						
Unwanted pregnancy for girls						
Yes			2	4.2		
No			43	89.5		
Not sure			3	6.3		
Irregular periods for girls						
Yes			31	64.6		
No			17	35.4		
Not sure			-	-		
Painful period for girls						
Yes			41	85.4		
No			7	14.6		
Not sure			-	-		

The finding on Table 5.17 shows that most teenagers of both sexes had not stated their sexual health problems. It could be because they did not have sexual health problems or they had the problems but did not wish to disclose their concerns. Findings suggested that most female teenagers had problems linked to adolescence such as painful or irregular periods.

The teenagers were asked about their experiences of attending a talk by doctors or nurses on sexual health topics. Using a Chi-square test (χ^2), a significant difference was found in that more female teenagers felt embarrassed to ask questions with doctors and nurses than male teenagers ($p=0.03$). Forty-three teenagers of both sexes (54.4%) perceived that doctors and nurses had adequately answered questions for them. Thirty-three teenagers of both sexes (41.8%) felt the talk was private. In the sample, 12 female teenagers (25%) and three male teenagers (9.7%) attended a talk by doctors or nurses on how to avoid pregnancy. More male teenagers had talked with doctors or nurses about sexually transmitted diseases and the topic of how babies are made, as shown in Table 5.18.

Table 5.18: Attended a talk by doctors or nurses on sexual health topics

	Frequency and percent of teenagers						χ^2	P value
	Male(n=31)		Female(n=48)		Total(n=79)			
	n	%	n	%	n	%		
Sexually transmitted infections								
Yes	2	6.5	2	4.2	4	5.1	3.94	.09 ^a
No	25	80.6	45	93.8	70	88.6		
Not sure	4	12.9	1	2.1	5	6.3		
How babies are made								
Yes	6	19.4	9	18.8	15	19	.59	.82 ^a
No	21	67.7	35	72.9	56	70.9		
Not sure	4	12.9	4	8.3	8	10.1		
How to avoid getting pregnant								
Yes	3	9.7	12	25	15	19	3.02	.22 ^a
No	25	80.6	33	68.8	58	73.4		
Not sure	3	9.7	3	6.3	6	7.6		
They felt shy/ embarrassed to ask questions								
Yes	5	16.1	20	41.7	25	31.6	6.67	.03*
No	22	71	26	54.2	48	60.8		
Not sure	4	12.9	2	4.2	6	7.6		
Adequately answer questions								
Yes	18	58.1	25	52.1	43	54.4	2.18	.34
No	5	16.1	4	8.3	9	11.4		
Not sure	8	25.8	19	39.6	27	34.2		
The talk was private								
Yes	10	32.3	23	47.9	33	41.8	2.03	.36
No	12	38.7	13	27.1	25	31.6		
Not sure	9	29	12	25	21	26.6		

^a = P value from Fisher's exact test

The findings from Table 5.18 showed that most teenagers of both sexes never talked with health care staff about sexual health topics. This might link to the finding that 46 teenagers of both sexes (58.2%) were not sure that talking with health care staff was private.

An open-ended question asked about how the participants would answer their friend if their friend asked them about talking to the doctor about personal things. Only ten female teenagers (12.7% of total teenagers), and no boys gave answers for this question. Five teenagers (6.3%) stated that they would only say that they talked with doctors in general because they felt embarrassment to tell their friends that they met the doctors for sexual health problems.

Teenagers were asked about types of services that they wanted to have for sexual health. More girls than boys mentioned that they wanted access to a counselling service, telephone advice, and contraceptives for their sexual health. More male teenagers wanted out of hour's clinic services than female teenagers. Most teenagers of both sexes had last visited a doctor more than one year ago and the main reason for visiting was fever. No respondents mentioned sexual health problem as a reason for their last visit to a doctor, as shown in Table 5.19.

Table 5.19: Types of health services

	Frequency and percent of teenagers					
	Male (n=31)		Female (n=48)		Total (n=79)	
	n	%	n	%	n	%
Types of services that teenagers want to have for sexual health						
Counselling service	20	64.5	40	83.3	60	75.9
Telephone advice	13	41.9	22	45.8	35	44.3
Providing contraceptives	15	48.4	26	54.2	41	51.9
Transfer system for proper management	12	38.7	11	22.9	23	29.1
Out of hour clinic	12	38.7	9	18.8	21	26.6
Last visited a doctor						
Last week	2	6.5	4	8.3	6	7.6
Last month	5	16.1	6	12.5	11	13.9
Last 3 months	5	16.1	3	6.3	8	10.1
Last 6 months	2	6.5	9	18.8	11	13.9
Last year	5	9.7	11	22.9	14	17.7
More than one year	8	25.8	13	27.1	21	26.6
I have not seen a doctor or a nurse	6	19.4	2	4.2	8	10.1
The reason for last visit to a doctor						
Skin problem	1	3.2	4	8.3	5	6.3
Fever	12	38.7	30	62.5	42	53.2
Legs/ arms	4	12.9	1	2.1	5	6.3
Chest problems	-	-	-	-	-	-
Ear/ eye/ nose/ throat	-	-	2	4.2	2	2.5
Weight	-	-	-	-	-	-
Allergies	1	3.2	1	2.1	2	2.5
Sexual health	-	-	-	-	-	-
Personal issues	4	12.9	1	2.1	5	6.3
Others	9	29.0	9	18.8	18	22.8

Interestingly, the findings from Table 5.19 showed most teenagers especially girls expressed a need for counselling services and nearly half reported a need for telephone services. These services might be suitable and useful for teenagers to get advice about sexual health issues because it might be easy for them to access and female teenagers might need more information. They might not want to meet face to face with health care officials. However, only one boy and one girl stated that they were not sure that health care official might tell their personal issues to others, and one boy worried that other health officials might hear while he talked with a health care official.

5.6 The attitudes of parents in relation to sex and sex education

Overall attitudes of parents in relation to sex and sex education of both genders were not significantly different. However, there were statistically significant differences in these responses by gender (Fisher's exact test) in two statements: *Parents should punish their children if they have sexual relationships*; and *Children can talk and discuss all matters including sex related matters with parents*. Seventy-five parents of both sexes (95%) decided that it was necessary to talk about sexual health with children when they were adolescents and 67 parents (84.8%) stated that their children can discuss all matters including sex related matters with them. However, only 12 parents (15.2%) agreed that they should be the first people to teach their children about sex and relationships and 42 parents (53.2%) agreed that sex and relationship should be taught in school. In this group 36 parents (45.6%) stated they felt embarrassment when talking about sexual health with children. Twenty-seven parents (34.2%) were worried that sex and relationship information would encourage the children to decide to have sexual experiences. Seventy-one parents (89.9%) did not want their children

have a boyfriend or girlfriend. In addition, 64 parents (81%) thought that children should be punished if they had sexual relationships, as shown in Table 5.20.

Table 5.20: Attitudes of parents towards teaching sex education in family

	Numbers (%) of parents who agreed with the statements			P value
	Male (n=23)	Female (n=56)	Total (n=79)	
Sex education induces adolescents to decide to have sexual experiences	8(34.8%)	19(33.9%)	27(34.2%)	.94
It is necessary to talk about sexual health with children when they are adolescents	22(95.7%)	53(94.6%)	75(94.9%)	1.00 ^a
It is embarrassing when talking about sexual health with children	12(52.2%)	24(42.9%)	36(45.6%)	.45
Sex and relationship should be taught about in school	12(52.2%)	24(42.9%)	42(53.2%)	.91
Teaching about contraception increases the likelihood of sexual relationships in adolescents	7(30.4%)	12(21.4%)	19(24.1%)	.40
Adolescents should not have a boyfriend or a girlfriend	19(82.6%)	52(92.9%)	71(89.9%)	.22 ^a
Parents should punish their children if they have sexual relationships	15(65.2%)	49(87.5%)	64(81%)	.03* ^a
Parents should be the first people to teach their children about sex and relationships	5(21.7%)	7(12.5%)	12(15.2%)	.32 ^a
Children can talk and discuss all matters including sex related matters with parents	16(69.6%)	51(91.1%)	67(84.8%)	.03* ^a
There should be reproductive health services available to adolescents	20(87.0%)	53(94.6%)	73(92.4%)	.35 ^a

^a = P value from Fisher's exact test

The key findings from Table 5.20 showed that teenagers in rural society might miss opportunities to gain knowledge of sex education from their parents because most Thai parents rejected their roles as the first people to talk about sex with their children, and many of them agreed with leaving sex education for teachers to take action. Other than this, most parents agreed to hold strict rules to protect their teenagers from premarital sex.

5.7 The correlations and comparisons of knowledge and awareness of sexual health

In the previous chapter, I explained the main aims of the survey of teenagers and parents and I did not propose to test a specific hypothesis. However, the main questions in the survey of teenagers focused on the knowledge of prevention and the awareness of importance of using condoms, and the literature review suggested most sexually active Thai teenagers did not use condoms when having sex. Sex education is an important way to encourage their knowledge and help them to avoid sexual risk behaviours. Therefore, parametric statistics were used to measure the correlations and comparisons of the knowledge and awareness of sexual health of teenagers.

I was using Pearson correlation because at least one of the variables was normally distributed (Bland, 2000). The results showed that the knowledge of prevention had a positive correlation with the awareness of importance of using condoms for both male and female teenagers, but was insignificant in female teenagers. Overall there was a significant correlation between the two variables albeit very low, $r=0.29$ ($p=0.01$), as shown in Table 5.21.

Table 5.21: Pearson's correlation of the knowledge of prevention and the awareness of the importance of using condoms of teenagers

Variables	Male teens (n=31)			Female teens (n=48)			Total(n=79)		
	Mean	SD	r	Mean	SD	r	Mean	SD	R
The knowledge of prevention	7.35	1.68	.42* (P=0.02)	7.25	2.06	.23 (P=0.12)	7.29	1.91	.29* (p=0.01)
The awareness of using condoms	3.85	.366		3.96	.325		3.92	.344	

* $p < 0.05$

Male adolescents had a higher average mean score on the knowledge of prevention than female adolescents, but they had a lower average mean score on the awareness of importance of using condoms. The independent t-test was used to compare means about the knowledge of prevention of pregnancy, and the awareness of importance of using condoms with gender of teenagers. The results revealed that there was no significant difference in the mean of variables versus gender ($p > 0.05$), as shown in Table 5.22.

Table 5.22: A comparison of means of the knowledge of prevention and the awareness of importance of using condoms with gender of teenagers

Variables	Male teens (n=31)		Female teens(n=48)		Mean Difference	95% Confidence Interval of the Difference	P (2 tail)
	Mean	SD	Mean	SD			
The knowledge of prevention	7.35	1.69	7.25	2.06	.1048	-.776 to .986	.81
The awareness of importance of using condoms	3.84	.37	3.96	.33	-.1176	-.274 to .039	.14

$P > 0.05$

The survey of parents focused on the attitudes of parents towards talking about sex in families. The literature suggested fathers did not share equal role of educators to their children but leave this roles to their wives. Therefore, the independent t-test was used to compare means of the attitude of parents towards teaching sex education in family with gender of parents.

Mothers had a higher average mean score than fathers on the attitude of parents towards teaching sex education in family. The independent t-test was used to compare means about the attitude of parents towards teaching sex education in the family with gender of parents. The results revealed significant differences in the means of variables versus gender ($p < 0.05$), mean difference= .32 (95% confidence interval of the difference between .105 and .527), as shown in Table 5.23.

Table 5.23: A comparison of means of the attitude of parents towards teaching sex education in family with gender of parents

Variables	Fathers (n=23)		Mothers (n=56)		Mean Difference	95% Confidence Interval of the Difference	P (2 tail)
	Mean	SD	Mean	SD			
The attitude of parents towards teaching sex education in family	3.55	.37	3.87	.45	.32	.105 to .527	.00*

* $P < 0.05$

Summary

The overall survey of teenagers focused on various issues: the ability to communicate with parents and others about sex related issues; sex education in schools; the awareness of

contraception and condom knowledge; the knowledge of HIV/AIDS and other sexually transmitted diseases; gender-related norms towards premarital sex; and the use of health facilities. The survey of parents focused on parents' attitudes towards sex and sex education issues.

The key findings from the survey of teenagers showed that most teenagers of both sexes reported that they missed opportunities to receive accurate information on sex related issues from their schools. Most teenagers of both sexes agreed that the condom is an effective way to protect themselves from sexually transmitted infections. However, nearly half of boys stated that condoms reduce sexual pleasure. Around one third of teenagers stated they did not know about where and what kind of health services are provided for them, they were worry health care officials will judge them, and they felt embarrassed to ask questions with health care officials. Teenagers wanted to discuss their sexual health problems privately. The services such as telephone advice might be easy for them to access and help them to feel less embarrassment.

Teenagers in these rural areas not only lack information on sex related issues from schools and from health care services but also sex related issues are still difficult to discuss in families that most teenagers of both sexes stated that they had never discussed sexual matters with their parents, similarly to parents' views that nearly half of parents felt embarrassment when discussing sex with their children. Interesting findings showed about most parents did not their teenagers have a boyfriend or girlfriend and sexually active teenagers would be punished. Most parents did not see the necessarily of talking about sex early that most of them preferred

sex education should be taught when their children when they are adolescents. Twelve parents (15.2%) thought that they should be the first people to teach their children about sex related issues.

Overall, this chapter provided a broad view of teenagers and parents in rural society in relation to the knowledge and awareness of sexual health. To give fuller picture of rural Thai families towards premarital sex and sex education the focus groups and in-depth interviews of parents and teenagers are used as methods to collect data in rich and depth. The qualitative findings from focus groups and in-depth interviews are presented in the chapter 6.

CHAPTER 6

INTERVIEW FINDINGS

Introduction

The findings from the surveys presented in the previous chapter showed that most teenagers had never discussed sex related issues with their parents and most parents stated that they would not be the first people to teach their children about sex and relationships. Moreover, most parents agreed that their children should not have a boyfriend or girlfriend while studying and they would punish their children if they became involved in sexual relationships.

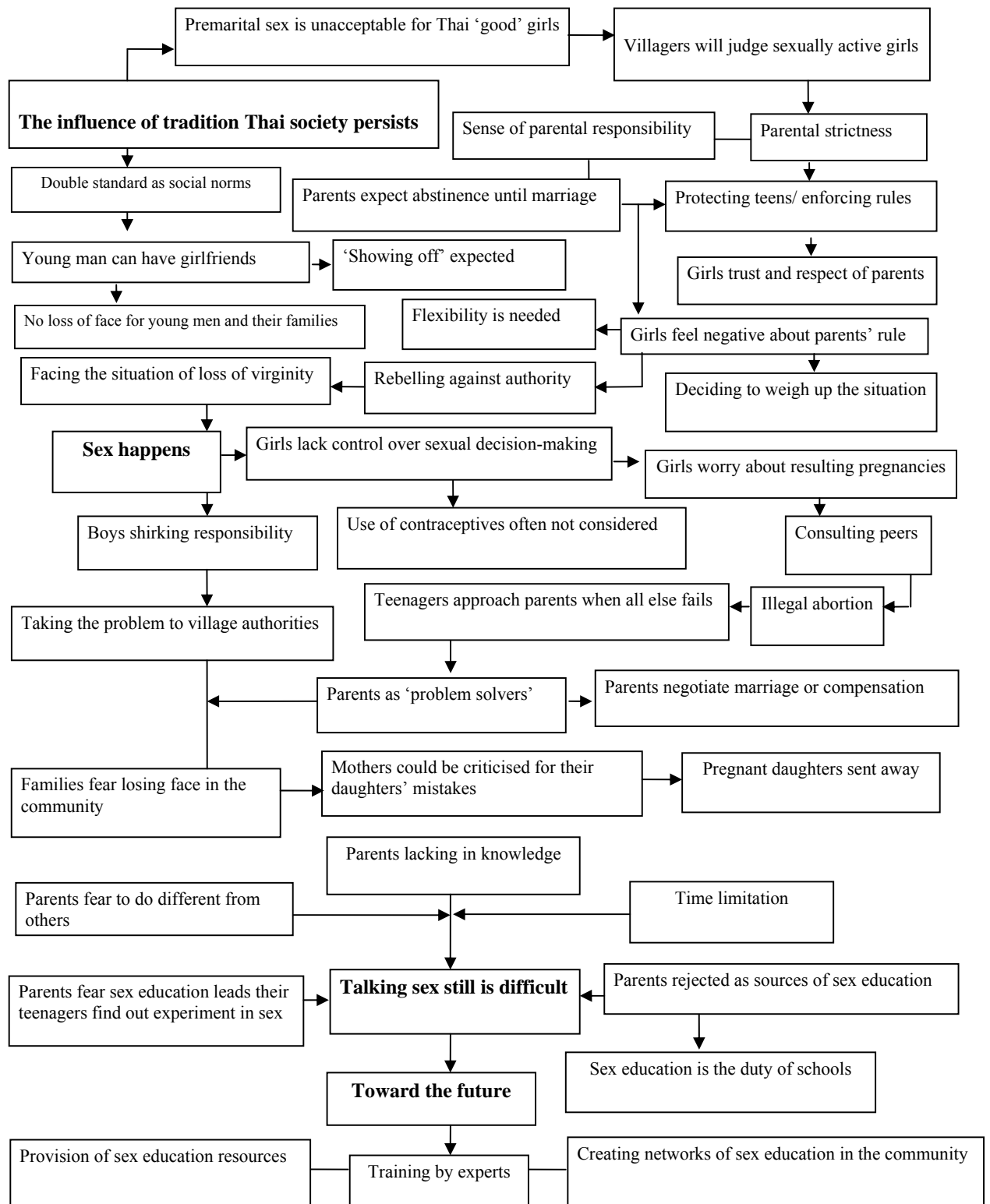
This chapter presents rich data from focus groups and in-depth interviews together to show the perspectives of parents and teenagers towards sex and sex education. The focus groups were not focused on the real life of families in these locations, instead scenarios were used to promote discussions about sex related issues. The in-depth interviews allowed participants to discuss rather more personal issues related to attitudes and views on sex education. The contents of the scenario (Table 4.2) and semi-structured interviews are shown in Appendices E3-E4. As in the surveys, the fictional characters Somchai and Mali are used to create a scenario highlighting situations in which young people may find themselves. Questions were asked of the focus groups to illicit their responses to these situations.

I have presented the two data sets together rather than separately because the data from focus groups and interviews taken together shows evidence of parents and teenagers views about sex related issues and sex education when they talked publicly in focus groups and talked privately in one to one interviews. Individually the focus group interviews provide views, which are the public face of society's views on this sensitive topic. The individual interviews however give another view inside families, showing some of the tensions between publicly expressed views and privately held concerns and worries about teenage sexual development. Moreover, taken together data from both sources provides a full picture of parents and teenagers attitudes towards sex related issues.

The Thai idioms are presented as part of the data in the original Thai and then translated and in addition the English equivalent where possible is given. The difference in culture makes it difficult to translate directly without illustrating meanings because the meanings of Thai proverbs might be lost in the process of translation or could not be correctly displayed without the contextual meaning of the original. Thai people usually use Thai proverbs or idiomatic phrases to display their feelings and values in short words to reflect their livelihood, belief, and custom. Most of the Thai idioms shown in this chapter are very popular and have an important role in reflecting the values and cultural beliefs on which rural Thai society is based.

The six steps of thematic analysis as shown in chapter 4, (methodology and methods). A thematic map was used to clarify understanding of the flow, location, and connection of events and to identify emerging themes. My supervisors and I met regularly to consider and clarify these themes. The thematic map involved reflecting of evidence through network that showed the important meanings from raw data (as shown in Figure 6.1).

Figure 6.1: The thematic map



The thematic map highlighted that the Thai traditional culture remains a major influencing factor, especially a deeply held acceptance of double standards concerning sexual behaviours. In addition, these themes reflected that teenagers did not consider the ramifications of the risks of sexual relationships. Teenagers were unlikely to seek help from their parents when they have negative outcomes from these relationships. In addition, themes illustrated the limitations and barriers that prevent parents from becoming an integral part of the provision of sex education in Thai families. Parents need the knowledge and skills before discussing sex with their children. Therefore, the four themes, included 13 subthemes displayed the connection of events in order to show a clear link to the original data, as shown in Table 6.1 and Appendix H.

Table 6.1: Themes and subthemes from focus groups and in-depth interviews

Themes	Subthemes
Theme 1: The influence of traditional Thai society persists	<ol style="list-style-type: none"> 1. Social judgement of girls 2. Protecting teenagers and/ or enforcing the rules 3. Restrictions imposed by traditional Thai culture 4. Westernisation brings change
Theme 2: Talking about sex is difficult	<ol style="list-style-type: none"> 1. Parental limitations 2. Better not bring it up 3. Parents rarely discuss sex directly with their children
Theme 3: Sex happens	<ol style="list-style-type: none"> 1. Fears and concerns 2. Considering risks when having sex 3. Facing risks 4. Parents as problem solvers
Theme 4: Towards the future	<ol style="list-style-type: none"> 1. Problems are resolved within the family 2. Training by experts and the provision of resources for parents and adolescents

To retain the anonymity of the participants of this study, a series of codes were applied to their quotes in focus groups and in-depth interviews. Codes given for all participants in focus group begin with **P**, and followed by the number such as **1,2,3,..**to indicate individual members in

groups. Then codes given to the settings of the study use **N**, **D**, and **NC**: the first setting (Nonglad village) begin with **N**; the second setting (Dongbung village) use **D**, the third setting (Nongyacai village) use **NC**, and code '**MIX**' given for parents in the mixed sex group.

For examples:

'P1D mother' means the mother participant number 1 in the focus group in setting 2:

Dongbung village.

'P3NC boy' means the male teenager participant number 3 in the focus group in setting 3:

Nongyacai village.

Codes given for in-depth interviews that I use the numbers 1-11 indicate each participant.

For example:

'In-depth, girl 6, 15 years' means the girl aged 15 years number 6 of all 11 teenage

participants in in-depth interviews.

6.1 The influence of traditional Thai society persists

This theme demonstrates the strong social and cultural influence of traditional Thai values and beliefs. Although parents view these as important, there is a sense within the data that there is tension because of the increasing influence of western culture as young people become exposed to new ideas and values from a range of sources. In this section, the inequality of gender which emerged from the data is presented under four subthemes: social judgement of girls; protecting teenagers and/ or enforcing the rules; restrictions imposed by traditional Thai culture; and westernisation brings change.

6.1.1 Social judgement of girls

Across all the focus groups and interviews, a strong theme emerged about the way in which the behaviour of young people is judged by the society in which they live. The judgements society made on girls' behaviour was perceived by parents as being more important than those made about boys. Fathers and mothers emphasised an expectation towards daughters to preserve their virginity until marriage. In the opinion held by one father,

'It is harder to look after a daughter than a son. Neighbours will gossip and look down to her, if she has premarital sex. 'Me Look Saw Muan Me Suam Yoo Na Ban' มีลูกสาวก็เหมือนมีส่วนอยู่หน้าบ้าน' literally means, 'Having a daughter takes as much care as having a public toilet in the front yard.' (P3N father)

The loss of virginity was highlighted not only to be a major change in the life of a female teenager, but also to represent a marked social change because she has lost much of her value in Thai society. Being a virgin is a part of the reputation of the girl and her family.

'I would compare a girl who has lost her virginity without being married to a pot of cooked rice which will quickly spoil, unlike uncooked rice which could be kept on the shelf for a long time.' (P2N father)

Accordingly, a female teenager would be made to feel guilty, ashamed, and embarrassed about losing her virginity before marriage. In the words of one mother describing the girl (Mali) used in the scenario *'she has made a major mistake in her life'* (P1MIX mother).

'Mali is fearful that her parents would overreact with anger and curse her because they are optimistic for her future and now they will be very disappointed. If they had realised that their daughter had sex with her boyfriend, rather than wait for the appropriate age for marriage, they would show rejection to her meaning that she is considered a bad girl.' (P3D mother)

'Mali is fearful that her parents would know that she has had sex with her boyfriend and she is no longer considered a good girl for her parents and others in the community. She feels guilty towards her parents.' (P4D girl)

Another girl elaborated on this theme by asserting the difference in the villagers' minds about the same behaviour displayed by young men and women.

'Our villagers have different views of these two individuals. If a boy has many girlfriends and likes to be a 'trick man', villagers will accept it. However, if a girl has many boyfriends, our villagers will look down on her and criticise her. It is unfair for a girl.' (P1NC girl)

Parents and teenagers made it clear that gossip is quite common in a village. They agreed that if a girl has had sexual relations she would feel fearful that villagers would know about her situation and show disapproval by looking down upon her and her family. This was associated, particularly in the parental view as depreciation of personal worth.

'It is very hard for me and villagers to accept premarital sex for a girl. A girl knows well that her neighbours will gossip, criticise, and look down upon her, if she has sex with her boyfriend before marriage. This is a reason that I have to forbid my daughter having premarital sex.' (P2N father)

'Mali's parents would likely be the last ones to know about Mali having a sexual relationship with a boy. They will know the situation only after their villagers have heard it already. This issue can become the hottest topic in the village.' (P6D mother)

'I told my father that I got pregnant; he was very angry and demanded that I go and get an abortion immediately. My father told me that it is impossible for me to go through with the pregnancy and it will be scandalous if I do not end this pregnancy.' (In-depth, girl 1, 18 years)

In addition, a mother of a female teenager expressed the belief that a mother will be criticised by villagers as well because she had not taught her daughter how to behave properly.

'When you look at an elephant, you would look at the tail, and when you look at a female teenager, you would consider the mother 'Doo Chang Hai Doo Hang Doo Nang Hai Doo Ma 'ดูช้างให้ดูหาง ดูนางให้ดูแม่' (P2N mother).

This idiom means to Thai people that when you look at the life style of the mother, you will know the character of the daughter because she follows in her mother footsteps, like the English idiom 'like mother, like daughter'. But this village talk will not reach the family directly.

'I think a girl's parents will be the last ones to know about the problem while the villagers all know about it already. But in the same way the villagers are afraid to tell the girl's parents about this situation because they might be fined in the village council of elders for slanderous talk.' (P5N father)

A girl highlighted how village life is different because she believed teenagers in cities can live much more freely than in the villages.

'Village life is warm and friendly but they also make pressure on each other by gossip and are careless so it might destroy each other. Neighbours are overly concerned about our personal affairs. If a girl sits on the back of a motorcycle with a boy in the city it is considered acceptable, but this is not so in village life. There are many examples cited of youths who go on trips together, and stay overnight together. After that, villagers would gossip and this news results in the elders meeting together and insisting on marriage.' (In-depth, girl 2, 17 years)

Boys, however, are not put under the same degree of pressure. Commonly, when a male teenager is involved in sexual activity with a female teenager, society is accepting of them, considering it a normal experience for a young man.

'Somchai is the one who is less affected and had lost nothing. Therefore, he felt he did not need to say or do anything. Mali will be heavy hearted and more worried about her situation than Somchai because she is the one who has to endure the effects the problem.' (P1N father)

'A man is the one who gains advantage of a girl. Somchai (the boy in the scenario) would not feel anxious about anything.' (P3D boy)

'Somchai has nothing to lose because it is quite normal for a man to have premarital sex.' (P1NC girl)

The extent of the acceptance is reflected in the statements by eight parents and ten teenagers of both sexes who stated that a sexually active male teenager would be likely to show off with his sexual experiences.

'Somchai would tell his friends about his relationship with Mali because he wants to brag to his friend and has nothing to lose.' (P1N mother)

'Somchai would tell others that he has already experienced sex because he wants to show his pride as a mature man.' (P4D boy)

Teenagers of both sexes expressed their feeling that it is not necessary for a male teenager to tell or not tell his parents that he has experienced sex with a female teenager.

'If I were Somchai, I would not tell my parents about my relations with the girl. It is a normal situation for a man to have experienced sex.' (P5NC boy)

'Somchai would speak with his parents directly because he has nothing to worry about That a man has sex before marriage is accepted.' (P3D girl)

Pride in sexual achievements does, however, by no means equate with accepting any responsibility or consequences. Participants in all groups made reference to the behaviour pattern of a male teenager who can deny his part in the relationship or not take any responsibility. In the following extracts, the parents discuss the actions the boy in the scenario (Somchai) might take when he discovers his girlfriend (Mali) is pregnant.

'Somchai should immediately try to be distanced from Mali and not allow her to contact him and not respond to her requests for assistance in taking responsibility.' (P2D father)

'Somchai would refuse and not take responsibility by passing the burden on to someone else or simply ignore the situation.' (P1N mother)

'I told my boyfriend that I was pregnant but he denied that he was responsible for my pregnancy, causing me to feel confused by the situation. Soon my boyfriend no longer came by and disappeared from my life. I tried to contact my boyfriend by phone and was unable to contact him because he refused to answer the phone when I called. I decided to run away and went to my boyfriend's home hoping he would take responsibility for his child. He refused to take responsibility.' (In-depth, girl1, 18 years)

6.1.2 Protecting teenagers and/ or enforcing the rules

Parents expressed a view that their sense of responsibility towards their children included being strict. Most teenagers of both sexes expressed their feeling that they felt negative about parents' rules. Most groups, with the exception of mothers agreed that teenagers expected their parents to be more flexible.

Parents affirmed the point that being strict was an appropriate response as their moral duty to their daughters, and parental control is modelled by setting rules. Two parents indicated by

using Thai proverbs that they must discipline their children by setting rules about relationships, particularly for girls.

‘Rak wua hy puuk rak luuk hy dtee’ รักวัวให้ผูก รักลูกให้ตี, literally means ‘if you love your cow, tie it up. If you love your child, punish him/her’. (P1N father)

‘Kun Wai Dee Kwa Ka กันไว้ดีกว่าแก้’, literally means ‘prevention is better than the cure.’ As exemplified in Mali’s situation, her parents love her and have good intentions for her. If Mali has established a relationship with a boyfriend, she will likely have opportunity to have sex with her boyfriend. Having sex before marriage is not acceptable in Thai society for Thai good girls as illustrated in the Thai idiom ‘Ching Sook Khon Ham ชิงสุกก่อนห่าม’, literally means ‘fruit picked too early will not turn ripe, rather it will rot’ (P2D mother)

A father indicated that Thai ‘good’ girls were expected to dress entirely covered according to strict standards and would not be allowed to wear enticing clothing styles. Two girls discussed their fashion choices, which parents perceived as signs to attract men.

‘It is part of the Thai concept of modesty that a woman will not expose herself by wearing enticing clothes or taking off clothes in public.’ (P4N father)

‘I wear shorts because they are convenient and trendy, but my parents believe that I am simply trying to attract the attention of boys and that I have been inconsiderate and disobedient to them.’ (P4N girl)

Parents expressed concern that one type of behaviour would lead to another, for example if their child was skipping school then they could be also indulging in other risky behaviours. One father summed up this view:

‘Parents must observe the behaviours of the child, whether the child is really paying attention to academics or is pretending and just dressing to go to school but skipping school and going to meet with friends. The parents must therefore be faithful to stay close in touch with the teachers of her school to be sure the child is in class.’ (P5D father)

Generally, most parents felt it was acceptable to set strict boundaries in order to control children, but one of the parents expressed a different belief that parents need to be more flexible to their children, especially with their girls. If parents were too strict, teenagers would

be straining the relationship with their parents to the point of breakdown. This was a concern discussed by a father.

'Mali's parents when suspicious of their daughter would then become very strict and this could result in the child to being under more stress and lead to personal conflict. The parent-child harmony would become strained as though the musical strings of a musical instrument that might be strained beyond the point of musical resonance resulting disharmony. 'Dern Tang Sai Klang' เดินทางสายกลาง is important,' literally means the parents could restore a family balance by allowing her heartstrings to be relaxed and restore harmony again. (P2D father)

The teenage participants expressed the opinion that strict parenting was an inappropriate way to regulate behaviour. Teenagers expected their parents to understand, and be more flexible with the wishes of their children.

'Parents should not try to be too strict with their children. Some parents try to be overprotective of their children, not flexible, and not listening to the thoughts of their children would result eventually in their children not caring about their parent's wishes. At first, their children would obey their parents but later on, they would not obey at all and skip school.' (In-depth, boy4, 18 years)

'Some parents will not allow their children out of their sight hoping that their children will be good children. Parents who are too strict with their children will make their children feel dissatisfied by being over controlled.' (In-depth, girl2, 17 years)

To compensate for the parents' obligation to them, it is a duty that a child must do things parents demand with trust, respect and consideration according to Thai tradition. The data showed that they would struggle with an inner conflict but had to continue to do what the parents and society expected of the Thai 'good' girl.

'Mali would feel frustrated but she cannot go against her parents' rules because she knows well that her parents have good will for her. She needs to ask parents to be more flexible.' (P4N girl)

Two fathers stated that parents need to keep a balance between control and flexibility to look after their child's best interests.

'I think that I would not have my children in constant strict control but rather I would have them learn and use wisdom in making the right choice. My parents overly controlled me and I possess the ability to study to a high academic degree but have not succeeded in life. I would

like my children to enjoy their education and not be under the same undue pressure as me.’ (In-depth, father1)

‘I think that my wife and I have been too flexible in the need to control our daughter. This failure means she does not fear our disapproval and she has chosen not to follow a high moral standard. She has taken advantage of us and has chosen to become a sexually active girl.’ (In-depth, father4)

According to Thai ideals, Thai parents teach their children, especially girls that they need to be abstinent until marriage. If teenagers feel the trust and respect of their parents, they will therefore obey their parents and would not be likely behave badly, such as meeting with the opposite sex alone. Parents and teenagers of both sexes expressed these views within focus groups.

‘Mali would not go to meet Somchai, because she would respect her parents’ wishes for her not to have a boyfriend.’ (P6D mother)

‘Going alone with the opposite sex is not safe; a girl should be careful for fear that, a man would take advantage and do something considered wrong by Thai society. She would also fear the condemnation of her parents. She will not go to meet the boy.’ (P5NC girl)

Participants in most groups, with the exception of the girl participants, perceived and showed their expectation of the ‘good’ girls that they would never do anything outside of the scope of parental permission. They expected that female teenagers would always get permission from their parents before they do anything considered doubtful. Dating would be done in the full view of parents.

‘Mali would certainly ask permission from her parents first before she has a boyfriend.’ (P1N mother)

‘Mali needs to get advice from her parents first to know their wishes that she would go or would not go to meet a boy.’ (P5NC boy)

‘Mali must get permission from her parents before she is going to go to a clandestine meeting with the boy. If her parents do not allow her to go, she would not be bold enough to disobey her parents.’ (P6MIX father)

Parents expressed clearly that it is considered unacceptable behaviour for girls to go to boys’ homes, unless both sets of parents know and allow it. If a girl goes to a boy’s home without

parental consent, the boy's parents will criticise the girl and look down on her, but the same standard does not apply equally to boys.

'If I see a girl riding double on a motorcycle with my son to my home, I will ask the girl why she came to a boy's home, I will ask also whether the girl's parents know and allow this. I will not ask the same of my son, because he has to make a decision based on confidence that we approve of him. If he was planning to do something we would not approve, he would take her elsewhere.' (In-depth, father2)

'When my son was eighteen, he had some problems with girls, and he brought his girlfriend to our home. I insisted that they had separate sleeping situations and asked the girl why she came to her boyfriend's home. I told the girl that it was very inappropriate for her to come to our home.' (In-depth, mother1)

Parents and girls recognised that Thai women are forbidden to go unescorted with a man alone, as this could result in inviting sex. A female teenager who goes out in secret after dark will be gossiped about, saying she is sexually active already because it is considered an unusual situation that a girl spends time with a boy at night.

'I am not surprised, if the girl will lose her virginity when she meets the boy after dark.' (P3N father)

'My parents allow me to bring my boyfriend to the house for a visit but do not allow me to go outside with him because my parents feel it is not an appropriate action and could lead to premarital sex. My mother has tried to tell me many times that the village would gossip about me, if I had premarital sex.' (In-depth, girl 2, 17 years)

The groups discussed the situation when a girl decides to have a date with a boy; she needs to avoid having sexual relations by resisting his advances. She is conscious that she needs to keep her virginity until marriage to ensure her parent's respect.

'For a girl to be drawn into an emotional situation by a boy is not ever safe. Mali would resist and not surrender to him because she wants to be a Thai good girl and she knows she would avoid having sex before marriage.' (P4D father)

'Mali would resist and not allow Somchai to have sex with her because she wants to keep her virginity until marriage.' (P5D girl)

Teenagers of both sexes expressed dissatisfaction with the parents' restrictions and were frustrated by the rules imposed.

'Mali may feel disagreed her parents' idea forbidding a relationship and she wants to have a boyfriend. That parents view teenagers with strictness are unfair, and they should try to understand their children's feeling.' (P4NC boy)

Seven teenagers of both sexes expressed the view that they wanted their parents to be more accepting to the situation of having boyfriends or girlfriends. They perceived that other parents were not as strict as their own and others in their peer group were allowed to have boyfriends and girlfriends.

'Parents would not forbid their children from having a special friend, because it is a normal nature to have a boyfriend or girlfriend and having a friend is not an unusual thing. Parents should be understanding and open minded with the wishes of their children.' (In-depth, Girl 6, 15 years)

A mother was concerned about peer pressure among adolescents. A father however highlighted the normality of being attracted to the opposite sex.

'Actually, it is quite a normal for teenagers to have a boyfriend or girlfriend as their friends do. She likely would wish her parents would not overly strict to her.' (P3MIX mother)

'The parents would not forbid the girl from having a boyfriend. Adolescents who have boyfriends or girlfriends are really a normal situation because it is a drive of youth.' (P6MIX father)

The data showed that female teenagers often respond to parents who are overly strict by arguing with them and displaying their rebellion against the authority of their parents. Female teenagers show their desire to be independent by finding various ways to break the rules. In the end, female teenagers often ignore parental restrictions by going along with their natural desire to meet boys, or they may choose to live a double life, by being sexually active, but pretending to be a submissive and respectful daughter when around their parents. Twelve parents and 15 teenagers mentioned this point.

'Mali has become rebellious against her parents, and would respond to her parents' comments with sarcastic remarks, and when they have tried to restrict her freedom even more, she would find ways to disobey the wishes of her parents. She will continually secretly meet Somchai.' (P3N father)

'Mali may show overtly that she accepts her parents' rules but she may behave in the opposite way behind her parents' back. She may choose to have a boyfriend and her parents never know about it.' (P1N girl)

'Mali will refuse to obey her parents. Although her parents do not allow her to have a boyfriend but she will not obey them.' (P5N mother)

'Mali is likely secretly to continue her relationship with the young boy, refusing to confess to her parents about the situation because she is fearful of her parents showing strong disapproval by scolding to her. 'Mali will go ahead, and proceed according to the boy's invitation, and not make a big deal out of it.' (P2N boy)

Parents also discussed how much harder it is to supervise their teenagers. They stated that teenagers today value being independent and self-confident and are also sometimes irresponsible, unlike their parents who had to obtain permission from their elders before they could do anything.

'Adolescents today are quicker in exploring sexual situations and experimentation and also they do not respect parents' suggestions.' (P4MIX father)

'For our generation, we were obliged to get permission from our parents before we went to meet the opposite sex. Nowadays, it is common for teenagers not obey parents because they are more self-confident than the youth in the past. Mali would likely disobey her parents and she would go to meet Somchai.' (P1MIX mother)

One mother and male teenage participants discussed female teenagers' ability to weigh up the dangers of the situation of dating a young man alone even if she desires to go, knowing that her parents would not approve of her actions.

'Mali has to weigh the situation and decide between the young man's invitation and her parents suggestions. It is a difficult and emotionally charged decision causing her to hesitate in making any choice because she wants to meet Somchai but she also fears her parent's disapproval.' (P6D mother)

'Mali would likely be worried because she wants to go to meet Somchai but she has acquired permission from her parents first and she is not confident enough to talk with them about meeting a man.' (P2D boy)

6.1.3 Restrictions imposed by traditional Thai culture

Fourteen parents and 20 teenagers highlighted that most parents had not taught their teenage children about sex education issues, nor had they spoken openly with their children about sex, feeling embarrassed to bring up the subject.

'I am too embarrassed to speak about these things with my children because in previous times, my parents had never taught me about this subject. I do not know how to begin.' (P5MIX father)

'It is difficult to start discussing sex because I feel embarrassed to speak about this and do not know how to begin. If I talk directly, it might be considered an obscene subject. If I talk indirectly, I have no idea of how to lead discussion. In the end, I do not talk about this.' (P4N mother)

'My parents have never talked this subject directly. They feel embarrassed to begin speaking about this issue. Previously, their parents did not teach them. So they might think their children will know by themselves.' (P1D boy)

'Parents are embarrassed to discuss this subject with their children. They do not know how to give reasonable answers, if their children have questions.' (P2D girl)

Five fathers and one mother expressed feeling that Thai society made it virtually impossible for them to discuss sex openly with their teenage children and that sexual matters were taboo subjects.

'Thai society is Buddhist, sex is an embarrassing subject and not a subject we would speak about because it is considered a coarse subject and therefore must be forbidden because it is against the Buddhist precepts so we would not speak about it.' (P1D father)

'Thai society has given us a feeling that this subject matter is a taboo subject. The Buddhist religion has forbidden us from speaking about obscene topics.' (In-depth, mother1)

'It is hard for Thais to accept discussing sex publicly. If I brought up the subject to discuss with others, I would be looked down as impolite people.' (P2D mother)

Three male teenagers and one female teenager described their sense of embarrassment at any attempts to discuss sex with their parents because it is considered an obscene subject.

'I think the reason that many parents do not discuss sex education with their children is because of the popular idea it is not to be discussed publicly. My parents are old fashioned and prefer to avoid the subject matter entirely.' (In-depth, boy5, 18 years)

'I want to ask my parents when I have questions about prevention of pregnancy by using a condom. However, I feel shy to ask them. I do not know why I feel like this. I have never asked

them about this before. I think is not easy to begin talking about sex education with my parents.’ (P1D boy)

‘I think generally speaking, in other families their parents do not tell their children about sex education and this is because youth are fearful of their parents and they are not bold enough to ask their parents.’ (In-depth, girl6, 15 years)

A girl admitted feeling that she did not understand why her mother was shy and unable to answer her questions when she asked her directly about sex.

‘I asked my mother about if I were to use a condom would it prevent a pregnancy or not, but my mother was so embarrassed by my question. She was visibly shy and answered my question by saying if she had used a condom, I would have never been born. I did not understand why my mother would not speak directly but tried to skirt the subject. I think that my mother was very shy and she avoided it.’ (P3D girl)

However, the pattern was not fully consistent. Seven parents believed that sex education should be the responsibility of parents teaching their own children, but they admitted that it would be difficult for them to lead the conversation and answer any of their children’s questions.

‘Sex education is a subject that parents need to teach teenagers but I am too shy to speak about it and I do not have any idea where to begin to speak about this topic.’ (P3N father)

‘I have experienced life so it might be possible to teach my children but I feel that if my children asked questions, I would not be able to answer them. If I talked about it in-depth, it would become too obscene. Finally, I have never discussed this subject with my children.’ (P2D mother)

A mother and a male teenager highlighted that in the present Thai society, values have changed and they can now speak more openly and people today are more accepting of the discussion of sex education.

‘In the old days, our religion may have forbidden us to speak about sex education, the elders were afraid to speak about it because it was against our religious values, but now we are not as religious as before.’ (P2MIX mother)

‘Actually the society has changed and open discussion about sex is accepted.’ (In-depth, boy 5, 18 years)

Buddhist priests have become involved in teaching sex education in schools.

'Today, many priests are also teaching youth about sex education, and illicit drugs at the schools as well.' (P3MIX mother)

'Buddhist priests are communicating with youth regarding this subject in daily classes.' (P6MIX father)

Six parents asserted that they did not need to teach sex-related subjects to their children because it is not their duty.

'Absolutely, I have never taught my children about sex education because I do not think it as an important subject for my family to discuss.' (P4N mother)

'I suppose that I would allow our children to find out by themselves. I have not considered that I actually have the responsibility to teach my children about sex.' (In-depth, mother3)

This was reflected in the experiences of teenagers of both sexes who expressed clearly that their parents were not interested in sex-related issues and did not give any importance to the subject.

'My parents have never talked about sexual issues that they do not consider this important enough. So they do not see a reason to discuss it.' (P5N boy)

'I think that the reason my parents will not speak with me about this is because they have overlooked the importance of this issue.' (In-depth, girl5, 17 years)

Fifteen parents stated that they would not teach sex education to their children themselves because schools are already teaching sex education to their children.

'Schools have provided the knowledge of sex education to my children already. It is the job of schools not parents' job.' (P4D father)

'I think schools have provided this education already and my children know about it so I do not need teaching them. I have neglected to think that I still have a responsibility to teach my children as well.' (P1MIX mother)

Many participants believed that sex education should be taught in schools. Parents and teenagers of both sexes highlighted that they appreciated the knowledge of teachers and sex education resources provided by schools.

'Teachers may be the better qualified ones who teach our children about this issue because they have more knowledge than parents.' (P5N father)

'My father asked me about what topics the teachers have taught at the school. I told him that I have received information about prevention of pregnancy by using a condom. He said to me 'Good good, if you have any further questions about this, you can ask your teacher because they will give you correct answers.' (P2D boy)

'Truly, teachers are better than parents because when someone has a problem and needs help, they can approach teachers, who are better prepared to answer questions.' (P7N girl)

Parents and teenagers highlighted that schools provided appropriate resources for sexual information so teenagers can acquire enough knowledge to understand the subject.

'I think schools should be able to provide adequate information to meet the need. (In-depth, father1)

'Teachers have to teach our children about this subject. I think schools have many books and other resources for our children to search on the issue that will give our children enough knowledge. Parents do not need to provide them with further knowledge.' (P6D mother)

'The schools are teaching the subject matter already and providing many health books at the school's library to search information.' (In-depth, boy3, 15 years)

Most parents indicated that even if the school is the primary resource for sex education, parents are not fully aware of what is being taught.

'Parents do not know what the school is teaching about sex education and we do not know what information our children have already.' (P5N father)

'The information I need for sex education is I would like to know what teachers at a school are teaching my children at a school. I want to know what areas of understanding my children would have gaps in understanding so I may fill in the gaps at home.' (In-depth, mother2)

Mothers and teenagers considered that sex education provided by schools might not be adequate because teachers may not be aware of the needs of pupils.

'I think children who have received sex education from their teachers have not enough knowledge to face sexual issues because the teachers usually teach them only by following their teaching plan.' (P4N mother)

'The information that I have acquired from my teachers is not enough because teachers have taught me by following the curriculum. They have not considered what students need at different levels.' (P6D boy)

Activities in schools and the personality of teachers seemed to have much influence on the information adolescents might have.

'I have tried to establish the sex education club after I was trained from the volunteer health care providers, but my teachers have discouraged this by saying that they have accomplished the goals by having the training already.' (In-depth, girl 3, 18 years)

Mothers and male teenagers emphasised that teachers should have specialised training in the subject matter of sex education before teaching the subject to students.

'Teachers should not be involved in the teaching of sex education, if they have not studied the subject matter directly. In addition, many teachers are unable to teach even their own children so how can they teach a classroom regarding the subject. Therefore, teachers should be trained before they can take a position to teach this subject.' (P4N mother)

'Teachers would need to be trained because they have not studied this subject matter directly.' (P4D boy)

Two fathers suggested that the school should be aware of the ways to use resources to teach sex education, and expressed a fear that the graphic images would encourage their teenage children to access pornography.

'The school should be careful in selection of resources for the communication of sex education and should not use graphic pictures in illustrations of sex education because graphic illustrations would encourage an appetite for pornography. The school should avoid making children over occupied with their minds dwelling on the subject of sex.' (P5N father)

A mother stated that teachers who teach sex education to children should also be living a life that is a good example for students.

'One of teachers in our village has a sexually active daughter and her daughter got pregnant. If she cannot teach her daughter to behave well, it will be hard for me to accept the situation of her daughter as an example. Teachers need to be a good example before guiding the students.' (P4N mother)

One father and teenagers of both sexes perceived that teenagers would find out information about sex from various sources rather than asking their parents.

'Today there is new technology and it is moving so fast that we are seeing new information regarding this subject every day. I believe that children are much more able to acquire this information themselves from many resources as well as from friends, the internet, and the brochures from health clinic without having to depend upon their parents.' (In-depth, father1)

'I have searched about sexual information by myself and I feel more comfortable with this information rather than trying to get the information from my parents. I fear my parents might think that I am overly interested in this subject matter if I ask them and since I am already experienced in this by myself so I decide it is better not to ask my parents.' (P5D girl)

Teenagers of both sexes turned to the Internet for advice.

'I prefer to search things that I want to know from the Internet because the Internet is comfortable, private, and the most modern channel to access the information that I need. I often search via Google website by typing 'sex'. Male teenagers would look at pornography and may get ideas from pornography and that they would want to try these things.' (In-depth, boy2, 15 years)

'I often find the information from the Internet. If I want to search about birth control, it is very easy to access by searching 'pill' on Google website. I have acquired this topic because I have had a boyfriend since seventh grade and need information to prevent pregnancy' (P6D girl)

'There is nothing else to ask my parents, because if I need information, I can find it on the Internet via search engines like Google and it is reliable. It is complete and believable.' (In-depth, girl3, 18 years)

Two mothers recognised that children will search for knowledge from the Internet.

'Children may be able to find some information from the Internet and other media by self-motivated study. They may self-study already. Parents may have less knowledge than them.' (P3MIX mother)

Six parents stated that their teenage children will gain the knowledge as a matter of experience. This might be related to the fact that the parents had no teaching and had to learn through experience. Teenagers of both sexes perceived that their parents felt that this worked for them and therefore their children should not expect to be educated in this subject.

'I was able to acquire the information myself and I have believed that the next generation would be able to do the same. But I realise that youth today is different significantly from our generation and have many more risky elements.' (In-depth, father5)

'I think my children may naturally learn about sexual issues by themselves without someone teaching them. Previously, I had to learn this subject by myself, no one was teaching me. I think I do not need to provide this subject to my children.' (P5D mother)

'Parents may think that life must be a man and a woman being a mate or a partner in marriage in a former existence. They are as pairs as a natural situation. Their children would naturally learn about sexual subject by nature.' (P6D girl)

Teenagers of both sexes noted that they find out sexual health information from the local public health services and highlighted the limitations of the free brochures distributed by health care centres.

'I gather information from brochures provided by the local primary care unit. However, it provides only some information but do not provide the knowledge of how to properly use a condom.' (P4D boy)

'I can find the information about sex education from health books, information posters, and brochures at primary care unit. It might be good, if the information about meeting with the opposite sex is provided.' (P1NC girl)

Two parents suggested that other families did not talk about sex-related issues. If it became known that they spoke about sex-related issues with their children, they would appear strange to other villagers. There was a perception that the accepted norm was that parents do not discuss these matters with their children.

'Our society here does not have even one family, which actually teaches their children about sex education, and they might think it will be just too different if our family begins teaching sex education to our children.' (P3D father)

'I feel fearful that my villagers might get the idea that my children have been involved in risky behaviours regarding sex, if I teach about sex education.' (P3N mother)

A female teenager also noted that parents might fear to be different from others.

'Villagers might think that parents have discussed sex with their children because their children have sexual relations already. They might look down upon their children. It is harder for my parents to talking sex with me, whereas other families have never discussed this.' (P4D girl)

6.1.4 Westernisation brings change

Parents and teenagers of both sexes often had different attitudes regarding sexual matters.

Parents highlighted how they had difficulties discussing sex with their teenagers because of the fragility of their confidence, fearing that their teenagers might regard their views as old fashioned.

'Parents do not teach sex education to children because they are not interested in listening to us and believe we are like 'million year old turtles' (a Thai idiom meaning prehistoric attitudes) and youth today are off to the moon faster than a rocket now.' (P4MIX father)

Parents were also concerned that children blocked their attempts to communicate about sex. Parents and teenagers highlighted these views by discussing the way teenagers display overconfidence and are in some ways aggressive when their parents try to initiate discussions.

'I tried to teach my daughter about pregnancy prevention but she looked at me as interfering in her life and she told me she already knows the subject well.' (PIN mother)

'Parents fear that their children are angry with them and they are viewing their children in a negative aspect.' (P4D boy)

'Some children are not considering that sex education is an important subject at home and they do not need to know causing their parents never to have taught them.' (P6D boy)

'Many children are not obedient to their parents already and not interested in the teaching of their parents because they are too self-confident, which makes it hard for parents to discuss the matter with them.' (In-depth, mother4)

'I told my daughter that when meeting boys it must be within the bounds of propriety and not outside of what is considered proper. She responded that I was crazy for suggesting this. Therefore, I no longer try to teach her. Children today have an aggressive attitude. They think that parents are out-of-date.' (P4MIX father)

'Some youth are not interested in the advice of their parents and they live for fun and games.' (In-depth, mother1)

The teenagers were aware of this perception. They admitted avoiding the subject of sex when speaking with their parents, fearing complaints about their behaviour.

'I think speaking with my parents is difficult because my parents will be quick to criticise and complain before listening to the whole story.' (P7N girl)

The teenagers also perceived themselves to be more confident than young people in the past. They were concerned that their parents might view them as stubborn and disobedient but emphasised that they would not do ‘anything wrong that would hurt our parents.’ (P3N, girl)

‘My mother often tells me that youth today often disobey parents and are difficult to approach. She thought that I was not a good boy because my friends have risky behaviours and I continue meeting with my friends.’ (P2D boy)

‘A girl sits on the back of a motorcycle seat with a boy. It is a regular thing. Nevertheless, our parents complain and do not accept this.’ (P3N girl)

The perceptions displayed by the participants, both parents and teenagers acknowledged the existence of the very strong double standards within the rural society in which the study took place. Traditional values still hold sway and parents in particular place a great deal of emphasis on expectations that girls will conform to very high standards of moral behaviour while a blind eye is shown to boys. This double standard is acknowledged and accepted across the generations as a social norm. The adolescents showed another form of double standard by wanting to behave in a more modern way and expressing the view that parents should accept that children have relationships whilst at the same time conforming to the traditional norm of viewing girls who have sexual relationships as loose and colluding with the view that it is acceptable for boys to have sexual relationships.

A situation of gender inequality is highlighted by the fact that the reputation of a girl and her family within the village society is dependent on her remaining a virgin until marriage. Parents do, to a large extent, collude to ensure that this tradition is maintained. The importance of control of children by Thai parents in rural areas is still great. This does place heavy strains on the relationship with their parents for adolescents as they are growing up and trying to find

their own way. Girls in particular have to be seen to conform and this places them in a difficult situation where they want to assert themselves as adults but also to be dutiful daughters.

Most parents agreed with the standard, but there was not the same level of consensus among teenagers. While the parents' actions normally rigorously upheld the village standard in order to protect their children, some parents' remarks about 'flexibility' suggest a deeper level of understanding. This view about flexibility was more commonly expressed in the in-depth interviews than in the public focus groups. This would suggest that the idea of flexibility is seen as somehow stepping outside the norm and therefore parents were cautious of admitting this in the public forum of a focus group. A great concern among parents was the respect in which they were held by their neighbours and fellow villagers. People living in Thai rural villages take considerable interest in the lives of their neighbours and are often aware of relationships among teenagers. If parents have a daughter who is perceived to be misbehaving, the girl will be judged but the family will also lose face. At the same time, Thai village society considers sexual activity of male teenagers as 'normal', even allowing young men to avoid taking responsibility for any resulting pregnancies.

Very prominently the findings confirmed that rural Thai socio-cultural norms still discourage the discussion of sexual issues within families. Discussion of sexual topics is considered taboo in these remote areas. This caused parents and teenagers discomfort and neither felt able to initiate discussions about sex. Despite parents wanting to ensure that their children behaved properly they asserted that they did not have a duty to provide sex education. Parents often prohibit rather than facilitate informed choice. Parents have more power than children therefore they provide the norms for unacceptable sexual behaviour for girls and they use their

norms as the basis to form rules. Those rules have an impact on adolescents' decision-making and sexual behaviours. However this is not always a positive impact in that teenagers in some cases see the rules as something to fight against.

Schools were expected by parents and teenagers to offer knowledge resources for students and people in these communities. Parents reflected on a lack of sex education from their own parents when they were young, and that led them to feel that their children might learn about sexual matters by nature as they had learned. However, sex education provision within schools varies according to teacher judgement. There is more work that needs to be done to improve the quality and quantity of sex education in Thailand. With parents refusing to touch upon the subject and schools not always living up to expectations, teenagers turned to the Internet and trusted peers for advice and information.

Thai teenagers in these rural societies had more freedom and were much more exposed to western values than previous generations. Many teenagers perceived western life styles as a modern way of life and altered their behaviour to emulate this. However, even though Thai parents received influences from western culture, they also hold traditional norms that have been transferred from generation to generation. Thai teenagers live in a society that has a strongly traditional culture, with high value placed on respect but are also strongly influenced by western culture. This appears to lead to situations of conflict with parents and uncertainty about their roles in society. There appeared to be a lack of awareness between the generations with young people feeling that their parents lack knowledge and misunderstand them; while the parents feared that their children already know everything and regard their views as irrelevant. The young people regarded their parents' views as old fashioned but were

constrained by respect for their parents. They were able to voice these opinions only within the safe focus group environment with their peers and not in the presence of their parents.

Different views may be a cause of conflict and frustration between the two generations.

Adolescents have their own views and want to make their own decisions, opposing the views of their elders was a way to prove their authority.

6.2 Talking about sex is difficult

This theme covers how rural Thai parents talked about sex with their teenage children. The emphasis on the importance of parents as providers of sex education and the appropriate time for parental sex education was also considered. Because limited practice of parental communication about sex was displayed, the researcher then explored the barriers that prevent parents providing sex education to their teenagers. Three subthemes of limitations in providing sex education emerged from the data: parental limitations; better not bring it up; and parents rarely discuss sex directly with their children.

6.2.1 Parental limitations

Most teenagers expressed clearly that their parents lacked knowledge in the subject of sex-related issues. They thought that their parents did not know how to lead the discussion because they have no education beyond primary school.

'I have told my parents that youth today are far more advanced than youth from my parents' age. They simply respond with an expression of incredulous disbelief and finally they give up and believe me.' (P2N girl)

'My parents do not have the knowledge about sex education to teach me because they studied in the past only had a few years of school and they have not yet provided sexual information to me.' (P1NC girl)

Parents stated that their children avoid asking them about sex because they realise the parents lack education. As a result, parents lack confidence to answer the questions of their children.

'I have a niece who asked me to buy birth control pills and when I asked what for, she told me it was to make her hair long. It was the same when my daughter said pills would make her thin, I had to believe her because I did not have the opportunity to study as much as her.' (P1D mother)

'My children had discussed things with me when they were young and studied at the primary level. Now, they have studied at secondary school that they have not consulted me at all because they might think that I have not enough knowledge to discuss the facts of life. Truly, I actually have no idea of this subject matter.' (P5N father)

This difficulty was confirmed by teenagers, who expressed clearly that their parents lacked knowledge in the subject of sex-related issues. The adolescents reported that parents were unable to answer, or responded with expressions of their ignorance.

'When I ask my father about the effectiveness of a condom, he said to me 'no no, I don't know. Why have you asked me about this, please stop thinking about this.' (P2N boy)

'Today the world is changing fast and the information that parents have received is not up to date and do not match the present situation. Furthermore, they are lacking in knowledge of the education of their teenagers.' (P4D girl)

'My parents have not taught me about sex education. I had asked my mother about what birth control pills are used for, my mother would ask why I was asking. I told her that I would use it to make my hair grow faster when cut short. My mother said she would have to ask the druggist because she does not know.' (In-depth, girl2, 17 years)

'I asked my mother if a boy and girl had sex and were not using condoms, would they be able to take birth control pills after sex in order to prevent pregnancy, but my mother answered that she did not know.' (In-depth, girl4, 17 years)

A father expressed clearly that he had higher education, but he still did not have adequate knowledge to teach his children about sexual matters. So parents were aware that although they had life experience and some knowledge they did not feel equipped to be able to teach their children.

'I believe that parents do not have enough knowledge to teach their children, even though some parents have a college degree, they still do not know about sex education. Sex education is a difficult subject to talk about.' (P3D father)

Commonly, many parents were concerned about making a living and did not have time to discuss the subject of sex with their children. Nine parents expressed these views. The views expressed by one of fathers demonstrated the huge pressure on families and revealed this fully in an in-depth interview.

'The reason that I do not teach sex education to my children is because I do not have time because I wake early and go to work to support the family. I do not have time to sit and discuss things with my children. Many families must hurry to work like other families who rise in the morning and make breakfast for their children and then go to work, and do not have time for their children. However, these days, the living expenses are high and parents must be active in pursuing an income to make enough money to support their family. This is the biggest demand of life.' (In-depth, father5)

'Parents are too busy with trying to make a living that they are unable to take the time to speak with their children.' (In-depth, mother4)

Parents and teenagers also highlighted that many parents were peasant rice farmers and struggled to provide funds to maintain the family leaving them little time to talk about sex with their children.

'My husband and I arrive home, it is dark, and we are very tired from our work. We have never thought about the subject of sex education.' (P3N mother)

'My parents must spend their time working in rice fields. They have to work hard because my family is very poor. They usually return home when it is dark and we have a little time to discuss things in general and never talked about sex related issues.' (P2NC girl)

The interview data highlighted that today's teenagers spent a remarkable amount of time with their peers. In the words of one mother,

'My daughter has activities with her friends during the weekend. We do not have time to talk together because she spends time with her study and her friends and I have to spend time in my rice field.' (In-depth, mother2)

Finally, some parents worked in different provinces and left their children with older relatives, who struggled even more with the subject.

'Today society has changed. Parents in many families must work in distant locations, leaving their children with grandparents. I think, most grandparents do not teach their grand children about this subject because they have no education.' (P3D father)

'My parents leave me with my grandmother because they must work away from home. My grandmother does not teach me about this subject because she has no sex-related knowledge from her school.' (P3D girl)

6.2.2 Better not bring it up

Fourteen parents asserted that their teenage children were still too young, denied that they have any risky behaviour and that it was not time to educate them about sex.

'I do not emphasise the subject of sex education with my children is because my son (16 years old) does not have any risky situations and has no girlfriend and is punctual regarding time. I think if my son develops a relationship with a girl, he will know how to be careful in his actions.' (In-depth, father2)

'I have never taught my children about this subject because my children have no risks. I think, it will be better, if we wait as Thai idiom 'Ya tee ton kawn khai' อ้าต๋อยกอนไข่, literally means 'do not beat up the self before fever' [the equivalent of the English 'do not cross a bridge until you come to it'].' (P1N mother)

Twenty-one teenagers of both sexes noted that their parents might think that they are too young to be involved in any type of risky behaviour and therefore too young to discuss sex education.

'My parents might think that I am still a very good boy and not doing risky things like meeting with friends who misbehave. However truly, youth is an age that is risky already because I am at the age of experimentation.' (P6N boy)

'My parents told me that sexual subject is not a subject for me now. I have to wait until I finish senior high school.' (P4D girl)

'My parents might think that adolescents at the age of thirteen to fifteen years old are at the age of playing, and studying. It is the reason that parents do not need to provide this subject to me.' (P6D girl)

Two girls explained that their parents had the opinion that their children were too young to be provided with sex education.

'My parents might think that I am still too young to understand the subjects. I have to wait until I am considered an adult. I think that it is too late. (P5D girl)

'I think my parents are thinking wrong, that we are too small to assimilate this subject. Truly, we should have been taught about this since the time when we were very young. I think since the time we were in junior high school, we would have been taught already because adolescence is the age of discovery and experimentation and might lead to sexual situations.'
(P2N boy)

Nine parents stated their fear that their children would go out and experiment with sex, if they were provided with information.

'Parents may fear that if they teach children about using condoms or birth control too early, they might look for opportunities to find a chance to experiment.' (P2D father)

'If parents teach sex education to their children, it may encourage their children to experiment in sex as 'pointing a squirrel to a place to make a nest' (Thai proverb: ชี้โพรงให้กระรอก that means 'point out the way for the villain').' (P5N mother)

Nineteen teenagers also highlighted that their parents avoided providing sex-related information to them because of fear that sex education will lead teenagers to sexual experimentation.

'My parents might think, if they teach about sex, I will have the knowledge to experiment in sex as 'pointing a squirrel to a place to make a nest (From Thai proverb).' (P3D boy)

'Parents may fear that their children will let themselves free for sex, if they provide the knowledge of sex education early.' (P1D girl)

Three mothers expressed fear that parents might be overly optimistic in their view of their children's good behaviour. There was concern that parents are unaware of the risky behaviour of their children. These quotations below demonstrated parents' misconception of their children's behaviour revealed in the in-depth interviews.

'I think, sometimes children will hide their private lives from their parents, not allowing parents to know what their condition is. Even when villagers complain about their children living risky lives, some parents would be in denial and assure them that their children are really good kids and do not have the capability to do these risky things.' (In-depth, mother2)

'Many parents also overestimate their children thinking that their children do not have any risky behaviour and therefore do not teach them. However, truth is the children are already living risky lives before their parents know about it. There is an example of a neighbour who

told the parents of a girl who was already in a risky situation and the parents of the girl did not believe them and was angry that they would say ugly things about their daughter.’ (In-depth, mother4)

Two girls highlighted that their parents overestimated them.

‘Actually, my parents would have warned me to be less gullible to the words of men, but due to the fact my parents did not tell me anything about contraception and did not forbid me to meet my boyfriend, I thought they allowed me to have casual sex without worry or restrictions. It was actually likely my parents were too trusting of me.’ (In-depth, girl1, 18 years)

‘I think my parents overestimate and trust me more than I do.’ (P5D girl)

Two mothers and three girls indicated that parents should provide sex education to their children.

‘Some parents may feel that to bring up the subject of sex education and prevention to their children that they would be to encouraging them to be involved in sex, (in the Thai idiom, to point a squirrel at the place to make a nest). Some parents might think differently about this and consider it is a very wrong idea but if parents teach their children what is right and wrong, they will not make the wrong choices.’ (In-depth, mother2)

6.2.3 Parents rarely discuss sex directly with their children

Generally, most Thai parents admitted that they did not discuss sex or sex education with their children. Four fathers and six mother participants demonstrated this opinion.

‘I think almost 100 % of Thai families do not ever mention sex education. We do not need to talk about this subject with our children.’ (P3D father)

‘We never thought that we needed to talk about sex education to our children. We never realised that the subject needed to be taught by parents.’ (P2D mother)

Twelve teenagers of both sexes admitted their feeling that it was hard to discuss sex with their parents, but they thought it was something which should be discussed.

‘Our parents never mentioned this subject. They might have thought that it is unimportant subject to discuss with me. I think my parents might be wrong because I needed to learn from them.’ (P3N boy)

‘My parents have never taught this subject. Truly, I felt I needed sexual information from them.’ (P4N girl)

'I think discussing the subject of sex education with parents is an impossible situation because it is difficult for children to broach the subject with their parents.' (In-depth, girl6, 15 years)

Five parents said that they have the self-confidence to discuss sex with their teenagers. Four of them were Health Care Volunteers and have had opportunities to acquire the knowledge of sex-education. The following quotations show parents who were able to discuss the sensitive issues with their children but disclosed this only in the privacy afforded to them in a one to one in-depth interview rather than in the more public focus group.

'I feel confident that I have passed good information to my daughters about sex because I have the knowledge of this subject from many training sessions that I acquired as a Health Care Volunteer. I am not sure if my daughters are able to assimilate all the information shared.' (In-depth, father5)

'I do not have any problem talking about sexual issues with my children because I am a Health Care Volunteer; I have the information available to discuss the subject of adolescent physical development. I am confident enough in my knowledge of the subject that I can comfortably discuss this subject with my children openly and directly.' (In-depth, mother5)

Nineteen parents recognised that they often use prevention strategies as sex education. They imposed a range of rules and restrictions to try to ensure their children particularly girls from becoming involved in sexual relationships.

'I do not teach sex education directly. I have talked about sex education to my children by forbidding them to do some things. For example for a girl, to be having sex before marriage is not considered appropriate in Thai society. I have set down a rule that they would not have sex before marriage.' (P4D father)

'While I do not teach sex education directly, I only tell my daughters: do not have sexual relations while a student. I forbid it as inappropriate behaviour and unacceptable for a Thai 'good' girl. ' (P2MIX mother)

Teenagers of both sexes expressed clearly that their parents have tried to teach them to avoid premarital sex.

'My parents have tried to speak about this but most of the talk is a list of rules, for example, they know that I have a girlfriend but they forbid me to have sex with my girlfriend.' (P5N boy)

'My parents have taught me about how to remain a virgin. They believe that a woman should be a virgin and carefully preserve that status. If I were involved sexually, I would be like 'cooked rice left to spoil'. (P7N girl)

Two teenagers of both sexes stated that their guardians have not allowed them to have a boyfriend or girlfriend, but they went against their parents' wishes.

'My parents only tell me that I must not get a girlfriend before I have a job. I did have a girlfriend and they did not know anything.' (P2D boy)

'My aunt only told me that I must not have a boyfriend while still a child. I always reply that I am not interested in anyone. But really, I do have some who like me and I have asked my friends about this. I also asked my aunt and she said, "it is not good for you to have a boyfriend early, stop meeting with him " but I do secretly meet him but we have not gone all the way.' (In-depth, girl 6, 15 years)

The rules and restrictions were different for girls and boys. Parents regularly warned their sons about using condoms to prevent unplanned pregnancy. Parents and male teenagers highlighted this view.

'Information that I teach my sons may be only skin deep, for example, I speak only about how to prevent problems by using a condom, but I do not seriously talk about abstinence. If he wants to have sex with a girl, he needs to prepare himself for prevention of pregnancy.' (P1MIX mother)

'My mother is aware that I have a girlfriend and my mother said, 'if you have any sexual relations or anything else, you should use a condom.' I told my mother that I always carry a condom. (In-depth, boy2, 15 years)

For young women the picture differed. Parents did not allow their girls to have sexual relationships. Two mothers and three girls related how contraception was acceptable for married women and parents talked to their daughters about birth control methods in the context of marriage.

'I have never actually sat and talked directly with my girls. I only told them about the methods of prevention such as condoms and pills, but they do not need to try it out now; they have to wait until marriage.' (In-depth, mother3)

'My mother told me. 'If a man refuses to use a condom, a girl needs to refuse to have sex. She told me I have to wait. Later, when I am married, a condom will be useful for me.' (P4N girl)

Mothers often warned their daughters to be careful about risks and dangers of interaction with young men and they told them to avoid friends who are risky as well, because these friends would lead them into sexually risky situations.

'Mostly I would discuss with my daughters about the problems related with meeting with friends. If they meet with irresponsible friends, they will eventually end up being the same as these friends.' (In-depth, father2)

'I do not know how to talk with my daughter about the subject of sex education. I have just told her that she needs to protect herself and keep her virginity until marriage. I told her women must be careful not to trust men because it would be foolish to allow oneself to get into a dangerous situation.' (P4N mother)

Examples of young women becoming pregnant while still a student were used to scare teenagers into 'avoiding improper behaviour'.

'I use the time while eating meals and watching television together to explain examples of girls who end up pregnant while still being a student. My daughters will fear pregnancy and will be careful and not get involved in those undesirable things.' (P3D father)

'I told my daughter, if she got pregnant while a teenager, she would have to take responsibility while still a youth and she must look after a child by herself as some girls in our village. I have explained this because I want my children to see the negative impacts of a teenage pregnancy and not do things like this.' (P6D mother)

Two fathers were attempting to introduce a hobby to their teenagers. Their teenagers would not then have free time so they would not be caught up in sexual interests.

'I find a hobby for my sons so they do not have free time to be drawn into sexual situations.' (PID father)

'I will use their free time for working such as our work doing sugar cane fields together and tell our children that they must be careful and not to be involved sex with a boy.' (P5MIX father)

Two parents explained to their teenagers about the duty of being good so that they would avoid sexual relations.

'I have a daughter to whom I will explain her responsibilities as a good student and that having a boyfriend while a student is not appropriate behaviour.' (P3D father)

'The younger child is at the age when he wants to study. I have taught my children that if they apply themselves to study and do not become interested in the opposite sex, they will get a good job and many good things. I told my sons "we will be able to have status in the society we live

in, others will accept us, we will be able to have nice clothes, and we will be well respected in the village.’ (In-depth, father2)

One father expressed his experience that his daughter is sexually active. It is hard for him to accept the situation and he preferred his wife to provide information about contraception for prevention of pregnancy.

‘I have taught my girls that if they are going to be involved in sexual activities, they should use condoms and birth control pills. My daughter has a boyfriend and she is often gone for the whole night. I must teach her how to prevent pregnancy. At first, I could not accept that my daughter would be involved sexually before marriage. But my daughter has been involved in risky sexual behaviour already and I have not been able to forbid her from this, so I must have my wife teach her about prevention because she is the same sex as my daughter.’ (In-depth, father4)

Parents and teenagers of both sexes indicated that parents are potentially important providers of sex education. Eleven parents highlighted that they should be the most important people in teaching sex education to their children because parents generally would understand their children better.

‘Parents would be the closest to the children and we are the ones who often see the problems and attitudes of our children and observe our children having changed their behaviour. We are the first one discussing sex with our teenagers.’ (In-depth, father2)

‘I believe that parents are important in teaching sex education to their children because they are closest to their children. They should be teaching their children about prevention.’ (In-depth, mother4)

Eight teenagers also noted that parents should fill in the gaps where they are lacking in knowledge.

‘Parents should take responsibility to fill in the gaps where a youth may be still uneducated or have areas of doubt.’ (In-depth, boy3, 15 years)

‘I believe that parents are also important as resources for sex education information because they are the ones who are closest to their children.’ (In-depth, girl3, 18 years)

Parents have already experienced life and therefore they have enough information to teach their children about sex education. Four female teenagers wanted advice from their parents about how to deal with risky situations.

'I think parents are important in being a resource of sex education because parents have already experienced life and know what we should and should not do. Therefore they are able to teach their children.' (In-depth, girl2, 17 years)

'The information I needed to acquire from my parents more than any other is about how to prevent pregnancy because I want to follow proper procedures in prevention.' (In-depth, girl3, 18 years)

'I would like to discuss with my parents about how I should act when in the presence of the opposite sex for avoiding having sexual relations.' (In-depth, girl4, 17 years)

A girl also noted that she needed information about physical changes happening to her and expected that it was her parents' responsibility to explain these.

'The subject I would like my parents to explain to me more than anything is the changes that happen to me during adolescence, so I would be acting properly according to my age.' (In-depth, girl4, 17 years)

Furthermore, parents need to be good examples for their children first. A mother said.

'I think parents need to be good examples for their children because if parents are not good examples, the children would likely not respect the information from their parents and choose not obey them either.' (In-depth, mother1)

However, four teenagers believed that their parents were not useful as a source of information about sex education because of the parents' reluctance to discuss these matters. There is no easy way for parents to bring up the subject to discuss it with them.

'I think it would be difficult for my parents to discuss sex education because they do not ask me anything, and I would not talk with them and leave everything up to the natural course of things.' (In-depth, boy1, 16 years)

'I think my parents are not likely to be a good resource for sex education because they never taught me about this so far and I never asked them for information.' (In-depth, girl2, 17 years)

A girl noted that if parents have personal problems, it is difficult to start a discussion about the subject. Therefore, not all parents are suitable as educators.

'Parents should have an important part in giving information about sex education for members in their families but for me, it would not be possible. Since I was ten years old, I have never seen my mother, and since my father is not normal mentally and unable to do this because he has mental health problems and he is almost living in another world now.' (In-depth, girl6, 15 years)

Most participants in all groups agreed that the best time for parental communication is before the young people are involved in sexual activities. Parents indicated that when their teenagers studied at the sixth grade levels of primary school or early junior high school levels (12 to 13 years old) was the best time to begin teaching sex education due to the fact this is when they are entering adolescence and girls are beginning to menstruate.

'I think that the most appropriate age for teaching sex education is during the first year of junior high school, this is the time they are in passage through adolescence and their bodies are quickly changing. If we wait until ninth grade, it will be too late.' (In-depth, mother2)

'Before female teenagers begin having menstruation is the appropriate age for parental communication about sex.' (P4D mother)

Three teenagers agreed with the parents' view.

'Adolescents should be taught about sex education before they begin menstruation.' (PIN girl)

'The age that parents should be teaching children about sex education would be when they reach the age of thirteen to fourteen years old. If parents decide to begin to teach children at my age of sixteen years old, I think it is already too late and in my case I have already messed up my life.' (In-depth, boy1, 16 years)

Teenagers of both sexes pointed out that when children were between fourteen and fifteen years old was the most appropriate time for parents to discuss sex with their children.

'During the age between fourteen and fifteen years old is an appropriate age for receiving sex education because I want to know my parents' views of this subject and allow them to give good suggestions for me how to adapt to adolescence.' (P3NC boy)

Some parents suggested that the best time to discuss sex education was when their children were beginning to develop friendships with the opposite sex. Parents looked for signs of when it was best to broach the subject of sex. For some parents this meant looking for behavioural changes or new friends.

'I think that I will discuss sex education with my children when they change their behaviours such as making many phone calls, and having girls' phone numbers in their telephone memory. I think at first I will watch from the outside what they are learning and allow them to learn by themselves some things and wait for them to start to discuss their relationship with me. Then I will begin to warn them about not getting to involve with girls too much.' (In-depth, father2)

'I will teach my daughter about this subject when she will take an interest in the opposite sex or will start to have a boyfriend.' (P2D mother)

Some teenagers of both sexes agreed with the parents' view.

'When the teenagers have boyfriends and talk on the phone often. It is the time when parents would take time to teach them about sex, so they can help them to avoid trouble before it happens.' (In-depth, girl2, 17 years)

Two parents suggested the appropriate age for parental communication about sex should be when teenagers are attaining adulthood graduating from high school. Four teenagers of both sexes highlighted that they would be mature enough to understand, at age 18 years, which is considered the age of accountability. This would be preparation for marriage.

'I think the best age to teach them about sex education is when they are between eighteen to nineteen years of age because if I teach them before that they might want to go and experiment and have sex before marriage.' (In-depth, father5)

'The age of eighteen years old is an appropriate age for teenagers to receive sexual knowledge from parents because they are ready for marriage.' (P4N girl)

However, nine parents and five teenagers expressed concern that if parents teach their children about sex education after they are involved in sexual activities, it would be considered too late to resolve problems.

'If parents offered sex education to their children after they were involved in sex already, it would be too late to solve the problem, but if parents discuss sex with children early, it will be useful for them to avoid having premarital sex. Sai Jon Pane' สายจอนแพ, literally means if Thai Buddhists want to offer food to monks; they have to prepare themselves to go to temples early in morning. If they go too late, monks will not wait for food offered by them and they have to take their food back home. (P4N father)

'I think it is too late if parents wish to teach their own children about sex after they have had sex already. As Thai proverb 'Wua Hai Lorm Kog' วัวหายล้อมคอก, literally means building stalls after a cow was stolen, [A preventive method enforced only after the disaster or mistake has occurred]. Teenagers today are faster maturing than before. Parents should be talking about sex education from fifth and sixth grade or junior high.' (P3D mother)

'It is simply too late to talk about sex education because Mali and Somchai are already involved in sexual relations. If they wish to teach them at this point, it may not resolve the problem.' (P4N girl)

However, nine parents indicated that it was never too late to start discussions about sex even after their teenagers have experienced sex, to prevent further problems.

'It is not too late if parents start to teach children about sexual matters because it will help them to know how to deal with the present problem. Moreover, it will help the children to change their behaviour or prevent further problems in the future.' (P4D father)

'It is not too late since the family can consider how they can resolve the problem in one of the following ways, perhaps to take the daughter to have an abortion, or to have the boy's family help with the responsibilities of her pregnancy.' (P3MIX mother,)

Seven teenagers of both sexes displayed a similar view.

'It is not too late because it will help their children to know how to deal with the present problem.' (P2NC boy)

'It will be not too late, if parents provide the knowledge of sex education to their children now. Adolescents can acquire the knowledge to prevent further problems.' (P4NC girl)

The existing limitations and barriers that prevent parents from becoming an integral part of the provision of sex education in these remote areas originate not only from traditional beliefs that sexuality is not to be discussed in public but also a lack of knowledge of how to approach the subject. The findings also demonstrate time restrictions which may make it difficult to have appropriate discussions.

Most parents lacked knowledge and confidence in their ability to discuss the subject of sex education with their children, attributing this, at least in part, to their lack of relevant knowledge and to their low levels of educational achievements. However, Thai parents used warnings to forbid their daughters from having boyfriends. Most girls feared parental and family sanction and responded to the parent or family rules in different ways. They struggled with the choices between following traditional expectations and following what they regarded as a more modern pattern of behaviour. At the same time, rural Thai society viewed men's having sex and indeed having more sexual partners outside marriage as normal. Thai parents only expected their sons to protect themselves when having sex; however, contraception methods had not been discussed in many families because of the limitations of parental knowledge.

The parents discussed their views and opinions differently depending on whether they were in the focus groups or in the one to one interviews. In the public forum of a focus group parents expressed their views by describing how they set strict rules and boundaries particularly for their daughters. They described how they did not allow them to have boyfriends and gave them warnings by showing examples of other girls who had become pregnant and brought disgrace on their families. However, privately in the interviews the parents revealed their own lack of self confidence in addressing the complex issues of adolescent sexuality. They described how they had little control over their children's choices in regard to relationships. This vulnerability was expressed by both fathers and mothers. In the focus groups they admitted to lacking knowledge about sex education so therefore not teaching their children anything because it did not conform to traditional moral standards. Yet in private interviews, they described their attempts to discuss sex with their children in order to try to keep them safe

from the consequences of unplanned pregnancy. They seemed reluctant to admit in front of their neighbours that they wanted their children to have the knowledge to protect themselves and that they did try to talk to their children about these things at home.

Most parents in these villages worked long hours or left their children behind, possibly in the care of grandparents, while they went to the cities to work. The fact that children were living with grandparents meant there was a wider generation gap. This may further limit parents' opportunities to discuss sexual health issues with their children. Parents did not have time, and they did not know when, where, and how to start. Furthermore, it will be more difficult for the parents discussing sexual matters with the children when conservative grandparents were around. In addition, the subtheme 'better not bring it up' describes how parents felt their teenagers were not mature enough to deal with sexual issues. The parents were very concerned that children would experiment with sex, if they were provided with knowledge about sex and contraception. However, avoiding this type of sex education altogether neglected the need of the teenagers to be provided with necessary skills to achieve healthy sexuality throughout their lives.

Parents had contradictory attitudes towards the most appropriate time for sex education at home. Evidence suggests sex education at home should be initiated before young people are sexually active. However, one third of parents did not consider that their children needed to be provided with the knowledge of sex-related issues before becoming involved in sex. That may mean that teenagers in these locations might have no supporting knowledge from their families to deal with the sexual problems that confront them.

6.3 Sex happens

This theme is derived from discussion of the part of the scenario when the young girl discovered she was pregnant. There was acknowledgment among the groups and individuals that teenagers do have sexual relationships and they explored the consequences of an unintended pregnancy. This revealed a range of problem solving devices and processes discussed by both teenagers and parents. Four subthemes emerged from the data: fears and concerns; considering risks; facing risks; and parents as problem solvers.

6.3.1 Fears and concerns

Most participants in all groups highlighted that young men may take advantage of girls and appeared to have the power to talk them into having sex. This highlighted a common view of a gender power imbalance.

'Somchai only thinks that he wants to have more experiences of sex with a girl. It is a quite normal situation for men to sweet talk girls.' (P6MIX father)

'Somchai uses irresponsible and not reliable words for enticing Mali because of a male nature to be the seducer.' (PID boy)

Most participants saw the actions of young men as deceptive and interpreted the actions as a lack of understanding about the nature of love. Generally, it was regarded as a fun and temporary experience. Most participants in all groups discussed this point.

'Men like this are not being truthful by encouraging her to meet alone because if he was truthful he would pursue her through normal channels.' (P6D mother)

'Somchai is leading her on as an experienced man. He wants to gain more sexual experience with Mali and he is not really in love with Mali.' (PIN mother)

A father said that a male teenager would have more power of persuasion than a female teenager in that he would lead her to have sex with him.

'Somchai would be proud of his success, if Mali allowed him to have sex with her that in the future he will have more power than her.' (P6MIX father)

There was a perception that a female teenager would believe the words of a male teenager.

Participants in all groups expressed this point.

'Mali never goes to anywhere alone and when the first boy speaks like this to her, she would become excited by his interest and would be convinced that he is speaking the truth. Somchai is therefore taking advantage of the fact that Mali has no experience with the trickery of men, and is easily misled.' (P4MD father)

'Mali just has this boy as her first boyfriend and may not have an opportunity to understand the world of men.' (P1N girl)

Furthermore, mothers and boy participants stated that the girl may have no knowledge or experience to consider schemes of a man in order to avoid risky situations, which she may face.

'Mali is too young and she has no knowledge of sexual issues. Her parents have never taught this subject to her before. Somchai will have sexual intercourse with Mali this time.' (P3N mother)

'Mali is unknowledgeable of how to escape from this situation of having a man advance upon her and has no knowledge of the danger she is in.' (P4N mother)

'Mali would allow Somchai to have sex with her because she has no knowledge of the danger she is in.' (P3D boy)

Most participants in all groups indicated that a girl could not possibly draw upon personal experience in making a decision about how to handle the situation of being alone with a young man.

'No matter what her response is, Mali has already decided to break her parent's restrictions so he could not miss taking advantage of her as according to a Thai proverb which says, 'Mai Ploy Hai Loy Nuan' ไม่ปล่อยให้อะไรหลุดมือ, literally means the man do not ignore all restrictions.' (P6D mother)

'Mali would resist Somchai first because she feels afraid to have sex with him. However, Somchai persuades her by various means. Finally, Mali will trust him and he may force Mali to have sex with him.' (P2N girl)

'I think it is likely that Mali is the one who is encouraging the situation. If Mali resists Somchai, he will be unhappy. He is therefore pressuring her by various means to submit.' (P5N boy)

This situation results in the boy controlling the situation and taking advantage of the girl's ignorance. A father expressed the fear that loss of virginity is also a loss of personal worth. If a girl loses virginity, it would not be difficult for a girl to have sex the second time.

'Mali is violated at this time. If Mali loses her virginity at this time, it would not be very hard for her to have sex with Somchai in the second and following times.' (P5MIX father)

Participants in all groups, with the exception of the father participants suggested that the female teenager (Mali) needed a long-term relationship with the young man (Somchai) first, in which to build trust before they moved on to this level of relationship.

'Mali should not allow Somchai to have sex with her because they have just met.' (P1MIX mother)

'If Somchai and Mali have had many meetings together, Somchai is therefore influencing her by various means to submit to him. Mali would not allow him to have sex with her at the first meeting because she has not been meeting very long.' (P2N boy)

'Somchai is too forward in declaring his love for Mali so quickly. It may be good, if she will wait for a long-term relationship to develop.' (P2D girl)

A mother expressed fear that if the girl denies the young man's advances this time, he will wait for another chance later on.

'A man would wait until the future, if a girl did not want to encourage him to move forward in the relationship on this day. As Thai saying 'Wan Pra Mai Dai Me Hon Diaw วันพระไม่ได้นอนเด็ดขาด, literally means, 'there will be other times to do merit on a Buddhist holiday.' (PID mother)

6.3.2 Considering risks when having sex

Nineteen parents and 15 teenagers highlighted that teenagers often embark on sexual relationships without considering the use of contraceptives.

'I think youths aged fifteen to sixteen years old would all know something about condoms. However, they are not even thinking about the need to have a condom because youth aged fifteen to sixteen are too young and want to try everything without thinking of the consequences and risks.' (P3D father)

Parents stated that teenagers are too immature to be concerned about using a condom or other contraception.

'Mali is too young to consider prevention of pregnancy by using a condom. 'Loei Tam Loei Thai saying: เลียตามเลย, literally means it is passed the point to consider anything' (P5MIX father)

'For teenagers at this young age, they are still too young to be concerned about adult issues like condoms; they are not concerned about contracting sexually transmitted diseases that would occur if they did not use condoms.' (P6D mother)

Boys and girls expressed a certain naivety in stating that the girl is too young or too inexperienced to consider the need of a condom.

'Mali does not think about a condom at all. She only goes on a date with the boy outside of the home. She does not consider of any risks as threatening.' (P5NC boy)

Mali may not think about a condom because she is too young to know about it.' (P3D girl)

The data showed that adolescents were to some extent educated about safe sex practices, but did not necessarily use the information they have practically. Two male teenagers and one girl stated that they have never considered the consequences of having sexual relations without condoms.

'I have been regularly having sexual intercourse with my girlfriend for over a year and we sometime use condoms to prevent conception. I used a condom about two times, in five times when we had sexual contact. Sometime I would rather not use a condom because it is a much more natural feeling, and sometimes I had sex without preparations. I am sure there would not be any other risky consequences so I am not worried about it' (In-depth, boy1, 16 years)

'I have had sex with my boyfriend but he used condoms sometimes thinking that I would not likely become pregnant. When my period was delayed, I asked my boyfriend and he told me that it was nothing to be concerned about.' (In-depth, girl1, 18 years)

The following quotes from male participants of focus groups demonstrates the power imbalance shown previously, this time in relation to decision making about having sex without a condom.

'Somchai may not think about a condom and he tried to have sex with the girl. The girl will not deny him to take advantage of her because a man has more authority than girl does. Finally, the girl will allow him to have sex with her.' (P5D father)

'Mali may allow Somchai to take advantage of her, although Somchai has no condoms because she felt fearful if she rejects his advances she will then face disapproval from him.' (P5NC boy)

'Even though Somchai does not have a condom, Mali will allow him to have sex with her. Mali may think that having sex one time would not lead to any problems.' (P6N boy)

This last quotation also demonstrates that despite a considerable health promotion effort in Thailand not all boys were clear about the likelihood of pregnancy or sexually transmitted disease. A similar quote from a girl showed this misconception was not just confined to boys.

'Mali may think that having sex one time would not make her pregnant or expose to her sexual transmitted diseases or any risky problems.' (P1NC girl)

A father stated that a male teenager preferred having sex without a condom because a virgin girl will not infect him.

'Somchai is pressuring Mali for sex without giving any thought to the importance of using a condom because for him she is a virgin and he has no fear of being infected by her.' (P5N father)

The perception of parents about a female teenager was that she might not have general knowledge about use of condoms as a contraceptive and she might have no experience with meeting with the opposite sex.

'Mali may not think about negative results, if the boy has no a condom for protection when he will have sex with her. She might have no knowledge of the sexual subject and she is an inexperienced girl.' (PIN father)

'Mali is unknowledgeable about use of a condom. Mali may not think about a condom at all. She will allow Somchai to have unprotected sex with her.' (P4N mother)

Two parents and four teenagers of both sexes stated that the female teenager would not allow herself to become involved in sex with a male teenager, if he did not have any kinds of methods to prevent pregnancy.

'Mali may resist and not allow Somchai to have sex with her, if she knew that Somchai has no condom.' (P5MIX father)

'Mali would resist and not allow Somchai to have sex with her, if he had no condoms for prevention. She fears that he will not take responsibility, if she is pregnant.' (P1D boy)

'A female teenager might think that a male teenager might prevent pregnancy by use of other methods of contraceptives other than condoms such as emergency contraception or external ejaculation.' (P1D girl)

6.3.3 Facing risks

Participants discussed the consequences of unprotected sex in relation to the scenario. They were concerned that both the girl and the boy would be worried about consequences. The scenario presents the dilemma when the girl misses a period.

'Mali probably feels depressed when she thinking about the negative effects of unprotected intercourse. She feels fearful of abandonment by the boy as well as the fear of pregnancy, sexual transmitted diseases, and AIDS.' (P2D mother)

'Not only is she afraid that her parents know about it, but also she afraid that they would curse her and she is fearful that Somchai will not take responsibility.' (P1D boy)

'Mali is completely mystified about her situation and does not know what to do.' (P6D girl)

'Somchai feels fear not only fearing his parents becoming aware of this sexual relations with Mali, but also fears that he has to take responsibility for Mali if she got pregnant.' (P2N boy)

The data show that teenagers would keep their concerns to themselves initially because of fears about parental reactions. Again, the concern about telling parents relates to loss of reputation for the girl and her family.

'Youth probably think that they are unable to speak with their parents because they are fearful that their parents would be not accepting of their sexual activities.' (In-depth, mother2)

'Parents are the first ones that I need to tell but I did not tell them at first because I was ashamed of what had happened. If I told them I was pregnant I would not know what my parent would feel like or what they would do about the situation.' (In-depth, girl1, 18 years)

Seven teenagers of both sexes expressed fear about how to consult with their parents about worries.

'Parents usually begin with scolding their children before they ask about what help they needed. Parents may think we are too young to take responsibility of a girlfriend because we have to depend on our parents to look after us.' (P5N boy)

'Children often try to avoid discussing these subjects with their parents because parents are full of complaints, which means they may lose the opportunity to teach their children.' (P1N boy)

6.3.4 Parents as problem solvers

The data from all of the groups showed that although the girls were aware that their parents should be the first ones to be told about her relationship, there was a sense that they were able to communicate with parents. There were expressions of fear that parents would be not accepting of her sexual activities and she has ruined her reputation.

The discussion about whether parents could be approached if children were concerned about the consequences of sexual behaviour showed mixed feelings among the participant groups.

Mothers stated these views.

'Parents have different approaches to the same situation. Some parents find that they are unable to speak with their children in positive ways about problems, so they rather often start cursing their children instead. On the other hand, some parents often give advice for their children and make them feel comfortable to ask them for help.' (P1MIX mother)

'Some parents would not give opportunity for their children to inform their situation. Therefore, children would not get advice from their parents.' (P3MIX mother)

Eleven parents and 18 teenagers of both sexes reported that a sexually active girl may try to hint about her experience of sex, telling her parents only some parts of the whole situation to test the response of her parents. A father said (referring to the girl in the scenario who finds herself pregnant).

'Mali wants to test the reaction of her parents before she tells them the whole story. In Thai they have the expression โยนหินถามทาง 'Yon Hin Tham Tang', literally means she is testing the water before jumping in.' (P5D father)

The girls were concerned with parental reaction. If parents of female teenagers show immediate rejection at this point or forbid them to have a boyfriend, female teenagers seemed more likely neither to say anything more, nor ask their parents for further advice.

'Mali would try to evade discussion of the situation when speaking with her parents. She could suggest hints of the scenario with her parents as if it is happening to someone else to see how her parents react to the situation she is in. If her parents give a positive response, she would tell them more details, but if she senses that they are would not accept her situation, then she would keep quiet and not say anything more.' (P6N girl)

Teenagers expressed their desire for parents to try to understand and show acceptance that the girl has become pregnant.

'The parents would be the first one for Mali to consult, only if the parents would show they understand her and will not criticise her.' (P5D boy)

'Mali's parents would support and talk with her in positive way. If her parents did not start cursing or looking down to her, she would feel relieved that they will help her to resolve the problem.' (P5NC girl)

'The parents of Somchai and Mali should be careful to ask their children what is going on because they fear that their children would run away from home.' (P3D girl)

Mother and girl participants expressed feeling that a female teenager would not be able to keep the secret of a pregnancy by herself. Her mother would recognise early signs and ask what is happening.

'Mali's parents have observed the behaviour changes of their daughter and found that she has changed from before. She might also have morning sickness when she becomes pregnant and her parents will force her to tell the truth to them.' (P2MIX mother)

'Parents who have experienced life would be able to observe their own children and know what is going on. This is especially, true of mothers who had experienced pregnancy before that.' (P1D girl)

Parents were more concerned with concealing any consequences of risk behaviour from their neighbours. As two of mothers in the interviews said,

'If my daughter became pregnant, I would not keep the secret within my family because her belly will be enlarged and my neighbours will gossip about that. I have to prohibit my daughter having sex before marriage.' (In-depth, mother 2)

'Sexually transmitted diseases are not serious problems because if my children catch these diseases, they will go to drug stores or somewhere to solve. Our villagers are not interested in these situations. It is not a hot topic in my village compared to pregnancy.' (In-depth, mothers3)

Most participants noted that teenagers, especially girls, would feel uncomfortable to tell their parents that they have become pregnant because they feel fearful of the disapproval of parents. On the other hand, boys would not tell their parents about the situation because of the perception that they do not need to take responsibility.

'Somchai may forbid Mali speaking about this to anyone because if their parents know about the situation, it will be a situation beyond their control and Somchai will end up having to take responsibility for Mali.' (P4N mother)

'I think if a girl is not pregnant, then the parents will never know the difference. This silence is because she is fearful her parents will be disappointed.' (P14D boy)

'Mali's parents are optimistic about her future and very strict with her that she will therefore not say anything risky exposure until she cannot resolve this problem by herself.' (P6N girl)

The data showed that parents are usually the last ones to learn that their daughter has become pregnant. If she were not indeed pregnant, parents may never hear anything about the relationship.

'Mali will tell her parents only if she got pregnant. If she is not pregnant, her parents will never know anything about her. She would consult her parents because parents will be able to help resolve the problem.' (P2N mother)

'If Mali were indeed pregnant, her parents would eventually find out, and if she was not, they would never hear anything.' (P3D girl)

Both parent and teenage participants recognised that a young man needs help from his parents to help him make decisions.

'Somchai wants to consult his parents because he does not have the maturity decide what the best way to resolve the problem is. On one side, he wants to take responsibility for Mali. But on the other hand, he wants to keep silent about her and wait for the girl's family to come to see his parents.' (P3MIX mother)

'Somchai would consult his parents about what he should do next, since he has many options such as abortion, or may ask to be married.' (P5NC boy)

'If Mali is not really pregnant, then Somchai's parents will never know the difference. Somchai would tell his parents to help him resolve the problems only if Mali would prove that she got pregnant.' (P2N girl)

Given the social stigma, the lack of support and the power imbalance between the sexes it was not surprising that six parents and six teenagers expressed their fear that if a girl became pregnant, the boy would take her to have an illegal abortion. Abortion is illegal in Thailand so the teenagers were displaying even more risk taking behaviour in considering this option. However their perception of the relative risks of telling her parents or seeking an abortion is interesting in the data. The data show that the male teenager would ask his friends and older acquaintances who have past experience in acquiring an abortion (P1D, boy). Participants discussed the procurement of an abortifacient, an herbal medication preparation, called *Khapliat* ขับเลือด (which means 'force menstruation').

'Mali may buy liquid oral abortion medicine first and if that does not succeed for an abortion, she may then consult her parents about what to do.' (P4D father)

'Somchai may get advice from his friends who have had experienced taking a girl to clinic for abortion. Then, he and Mali will resolve their problem by having an abortion in one of illegal clinics.' (P1D boy)

'If my girlfriend would become pregnant because today we have an oral drug that will cause an abortion. In addition, some of my friends had already caused a girl to become pregnant, the girl used a liquid preparation made to force a period, and they ended their pregnancies. So I am not too worried.' (In-depth, boy1, 16 years)

One girl described her own experience with abortion.

'I bought an herbal medication which causes an abortion. After drinking one-half bottle of the medication, I felt dizzy and had vertigo and decided not to consume anymore. This resulted in the abortion not being successful. I decided to gather information about getting a clinical abortion from my friends who have had an abortion already. My friends told me that the cost would be according to the months I was pregnant (for example three months pregnant would cost three thousand Baht). I asked my friend helping me to have an abortion and used the cash from the sale of a golden necklace to pay for the abortion.' (In-depth, girl1, 18 years)

The data from all groups showed that if the abortion is successfully done, the parents might never know that anything had happened with their children. However, if they were not successful in resolving the pregnancy alone, the parents would be called upon to help their children.

'Somchai would take Mali to have an abortion performed and he will not tell his parents about Mali if abortion is done.' (P4MIX father)

'Mali will resolve the problem by having an abortion first. Her parents will know only when she cannot find a way to resolve the problem after an abortion is not successful and her belly has enlarged revealing pregnancy.' (P4D boy)

A girl highlighted that she sought help from her parents when she has no other way to deal with the situation of unwanted pregnancy.

'I finally told my father and my older sister after I was pregnant a full five months and my belly was becoming large. This was close to the time I was going to take final exams. I think that a child would speak to their parents openly when there is a crisis and could see no way out. Although, parents are also the best ones who can actually help resolve the problem but they are also likely the last ones to find out about the fact their child is sexual active.' (In-depth, girl1, 18 years)

Where adolescents did not perceive that they will get the support they need, they would turn to more sympathetic peers for advice. Eleven parents and 14 teenagers of both sexes indicated that a girl would be more inclined to seek advice from her close female friends first and get advice with her or her older sister that she trusts because they will understand her more than her parents do.

'Mali would get advice from female friends whom she can trust because youth often share their problems with close friends and rarely consult with parents first.' (P2D father)

'Mali would share her experienced sex for getting advice with her close female friends. They will understand her more than her parents do.' (P6NC boy)

'We learn from our friends who have had sex experiences and they tell us about it. They have useful information and they are the good resource of sex education. We can believe them because they do not judge us if we ask unlike our parents who might scold us.' (P4N girl)

A male teenager suggested that a girl may seek advice from her teacher.

'Mali would approach her female teacher since the teacher has the knowledge of how to help resolve the problem.' (P2D boy)

Mothers would be the person that the son or daughter seeks advice and help from first, because she is the one who is the closest to her children. Parents expressed these views.

'I believe that my wife should be the one who teaches our children because she has a better understanding about the details than me and she is more in touch with our children's needs and interested in their lives. She has more time with our children than me.' (In-depth, father1)

'Commonly, most children of both sexes are more fearful of their fathers than their mothers are. Therefore, they are more likely to consult their mothers rather than their fathers.' (P6N mother)

Another view that participants in all groups highlighted was that parents who are the same sex as their teenagers would be the first one that teenagers would approach for help and advice.

'I think children feel more comfortable discussing things with their parents who are the same sex as them. In my family, my sons usually discuss things with their fathers rather than me because they are the same sex and they are much close together.' (P5N mother)

'Somchai would ask for advice from his father because his father is the same sex as him and able to share his experience with him about how to resolve the problem.' (PID boy)

'Mali may talk with her mother because her mother is the same sex as her and she would be the best one to understand her daughter.' (PID girl)

Teenagers said that they feel comfortable discussing sex and getting advice from the parents who are close and understand them regardless of gender of the parent.

'The reason I did not tell my mother was she had been working in Taiwan as a maid. I was of course, closer to my father too. I felt that my mother would be even more disappointed because my mother being a woman would over react and be disappointed. I think when teenagers have a problem they will choose to get advice with their parents who are closed with them.' (In-depth, girl 1, 18 years)

'I think my mother feels that my father is not willing to accept the news that I am stubborn and in trouble. I think the relationship of parents with children is an important factor if children are going to discuss the subject with their parents. If the children feel that their parents are their friends and show that they are interested in the thoughts of their children, they children should be more likely to discuss things with their parents.' (In-depth, boy4, 18 years)

Parents expressed a general belief that a boy's family does not have to be too worried about their son having sexual intercourse with a young woman because the reputation of the man's family will not suffer. They only have to wait for a female teenager's family to request any assistance

'Somchai's parents do not need to worry anything because their boy has nothing to loss. They only wait for the girl's parents approach them to resolve the problem. However, the boy's family would be at an advantage over the girl's family.' (P6MIX father)

'Somchai would be proud of himself that he is the first man of Mali's experience with sex. The boy's family has nothing lose. I had seen many families of boys had nothing to do for girls.' (P1MIX mother)

A strong theme among parents highlighted that a female teenager's parents would approach a boy's parents to 'take responsibility' traditionally meaning marriage, if the pregnancy continued.

'Mali's parents may feel embarrassed to meet directly with the boy's family and feel losing face in their community where they live. They will ask for help from their relatives to approach the boy's family to take responsibility.' (P4N mother)

'My boyfriend refused to take responsibility of my pregnancy but our parents of both families met and decided that we would be married after graduation from nine grade level and therefore, I was able to carry the baby to full term. My father told me it is impossible to go through with the pregnancy while I have no husband and it will be scandalous for our family.' (In-depth, girl1, 18 years)

The one-sidedness becomes even clearer when considering in common practice that if the young man does not intend to get married, his family can instead take responsibility symbolically by paying a lump sum of money as a punishment for the offence, terminating the relationship.

'Somchai's parents will give many options to Somchai. If Somchai needs to take responsibility, his parents will ask Mali to get married. On the other hand, if Somchai wants continue to study, Somchai's parents will pay a fine to the girl's family.' (P3N mother)

'The boy's parents may pay a fine to the girl family and try to keep their children from meeting again.' (P3NC girl)

However, two parents elaborated that if the young man's family takes the position of denial and refuses to take responsibility, the young woman's family would go to meet the persons in authority in the village to find a suitable resolution.

'If the girl's parents meet with the boy's parents, and the boy's parents do not respond as expected, such as ignorance the girl's parents will therefore approach the authorities at the local police station to record their complaint.' (P1N mother)

'If the boy family does not take responsibility for my daughter, I would contact the head of village to require that they need to care for my daughter.' (In-depth, father5)

Social pressures on the family were expressed by one mother who suggested that parents would sometimes resort to sending their daughter away to live with family members in a distant place to avoid the watchful eyes of villagers. Young women who became pregnant will be seen as 'improper' role models in their villages.

'If my daughter became pregnant, I would ask for help from my relatives in another village to look after her until she has had the baby. It is impossible for her to live in our village while she is pregnant because our villagers will gossip, criticise, and look down us.' (P1D mother)

A father said that if a girl became pregnant, parents would resolve the problem by keeping the secret within the family.

'Mali's parents would likely have to forbid their daughter from continuing in school because they are afraid that villagers would know that their daughter is pregnant before marriage.' (P3D father)

Evidence from this theme has shown that some male teenagers see having sex without a condom as brave and masculine. Many teenagers had underestimated the negative consequences of risk taking. Whilst it is not unusual to find that young people take risks with contraception the position of girls is again quite different in these rural societies. They are placed in an invidious position because of their sense of duty and trust. They go from being under the control of their parents to being controlled by their boyfriend. In placing their trust

in the male in the relationship they put themselves at risk not only of pregnancy but of losing her personal worth and the reputation of her family.

The findings suggested that female teenagers might have little control over sexual decision-making. They may be unable to negotiate condom use due to unequal power relations between boys and girls. Thai social and cultural norms, social expectations, and imbalance of power between men and women when related to sexual matters are behind problems, such as unintended pregnancy, abortions, and STIs. This power imbalance is obvious throughout the data even to the point at which girls will trust the boyfriend to find the abortifacant medication to end a pregnancy. It is difficult for teenagers to obtain safe abortion for legal reasons and because of lack of funds. The girl who had undergone abortion in this study highlighted her difficult experience dealing with unplanned pregnancy alone.

On a more general level, the perception among the teenagers of a lack of family support is also strongly apparent. The parents' fear of losing face in the community and the resulting strictness in upholding the status quo persuades teenagers to conceal their problem, attempting to solve it on their own. If the boys fail to live up to the trust that is placed in them then the girls will finally turn to their parents to solve the problem of an unplanned pregnancy after the problem has developed beyond their ability to cope.

While parents favour their pregnant teenagers to maintain the pregnancy and either ask their teenagers to marry or negotiate a financial settlement between the families, their children overwhelmingly propose the use of abortion as a solution to the consequences of unprotected premarital sex. For the teenagers this may seem like the solution to the problem: they avoid

their parents' disapproval and their parents avoid losing face within their community. The example of the fine imposed by the village hierarchy does show that boys who misbehave face some sanction but the families do not lose face in the same way as that of girls because the payment mitigates.

6.4 Towards to the future

A number of parents and teenagers reported the limitation of parental communication about sex within the study, the focus then shifts to parents and teenagers' perspectives on their needs to improve the parental role as providers of sex education. Two subthemes of the needs of parents and teenagers to begin discussing sex-related issues are presented: problems are resolved within the family; training by experts and provision of resources for the parents and adolescents.

6.4.1 Problems are resolved within the family

Three parents and one boy considered that a good relationship within the family was a key to encouraging open honest discussion between parents and children.

'I think that if parents and children have good relationships, it will be easy for them to talk together about in any issues including sexual subjects.' (P5MIX father)

'I think, the openness in families is an important consideration too. If the family is not getting along and not openly sharing personal information, their children will not be able to establish lines of communication.' (In-depth, mother2)

'Parents would try to talk in positive way with their children and both need to have good relationships first before talking about sex.' (P1N boy)

Six teenagers stated that family members should be able to discuss sexual matters together and keep these things private within their families.

'Parents should be able to discuss the subject of sex-related issues with their family's members. Family's members should be the best to share most things together.' (P2N boy)

'Parents should be the best ones to admonish their children to do the right way as their social norm do. Parents do not need to feel that they would consult others for any situations, especially about the topic of discussing of sex with their children because it is a private situation in the family.' (P6N girl)

One mother and three teenagers indicated that parents might share their experiences with other parents.

'Parents would consult with close neighbours about their children's behaviour because it is easy to talk with peers and we have close relationships.' (P1N mother)

'Parents can consult with neighbours who have knowledge about the subject of sexual matters and gain experience about it as well.' (P5N boy)

'Parents can consult with close neighbours that exchange ideas about their daughters who may have had experienced teenage pregnancy while still students.' (P4NC girl)

6.4.2 Training and resources for parents and adolescents

Four fathers and three mothers highlighted that health care staff should train them about sexual matters especially in relation to prevention of pregnancy before they relay the knowledge to their children.

'I think that parents need up to date knowledge of contraception from health care staff because they should be able to discuss and teach about the methods of contraception so parents can teach their children correctly about prevention of pregnancy.' (In-depth, father2)

'Parents need to be taught by Health Care workers about how to understand their youth and communicate about the subject of prevention of pregnancy.' (P3MIX mother)

Adolescents of both sexes agreed that parents could acquire information about adolescent development and prevention of pregnancy in training courses and then convey the subject to their children at the appropriate times.

'My parents are not likely understanding me. Expert speakers should train my parents about the knowledge of adolescence, and subjects like the use of condoms, to help them to be able more understand me. The primary care staff at my sub-district would be the appropriate ones to train my parents because parents trust them.' (P1D boy)

'Parents need a knowledgeable speaker, who could come and present the knowledge of adolescence, and prevention of pregnancy. They can acquire the information from the staff and then convey it to their children.' (P4D girl)

Three mothers recognised a need for training by primary health care staff about the negative impact resulting from sexual risk behaviour.

'Parents should be trained as well so that they can use the information to teach their children regarding the dangers of the risks involved with sexual activities and the impact of sexual behaviour while still a student.' (In-depth, mother3)

Parents and teenagers need training about discussing sex in sessions held by health care staff.

Two mothers and a girl highlighted these views.

'The public health workers at our primary care unit should teach both parents and adolescents on the topic of how to discuss sex.' (P3N mother)

'The public health workers such as doctors, nurses, and health clinic practitioners who have studied about sex education directly would convey the knowledge to both of parents and adolescents.' (P4N girl)

However, parents who felt they had some knowledge also wanted to have additional training to prepare them to educate their children properly.

'Some parents may be skilled in this area of teaching, since they are health care volunteers, and because they have already had some training in the subject though generally they still lack the full information needed to answer their children's questions. Parents should have refresher courses on the subject matter regularly.' (P4MIX father)

Parents stated that they needed training about how to teach their children about sex from experts in any fields not only from health care staff.

'Experts in any related health organisation should also teach parents methods how to teach sex education to their children. They should teach them where to begin.' (P6MIX father)

'Parents need a knowledgeable expert speaker, who could come and present the knowledge of how to teach sex education to their children and parents will have opportunities to exchange of ideas.' (P3MIX mother)

Two parents and two girls stated that teachers should be able to train parents and help prepare them for the experience of answering their children's questions.

'Teachers would train parents about the needs of adolescents so they can help parents understand their children. Teachers can also tell parents what they have already taught their

children in their classroom, so parents are able to support the teachers and fill in the gaps.' (P4N father)

'The information that I desire to acquire from teachers is 'how I can understand the youth today' because teenagers are more likely listen to their friends than parents.'(In-depth, mother 6)

'Teachers would train parents on the topics such as what adolescents need, physical changes of adolescence, and ways how to prevention of pregnancy. If parents have the knowledge of these issues, they will understand and able to provide support to their children in appropriate ways.'(P2D girl)

Five parents and one boy expressed their desire for expert speakers to provide the information to improve their communication skills and promote good relationships within the family. They did not describe the professional background that would be required of these expert speakers.

'Parents and adolescents need expert speakers providing the knowledge and activities to promote good relationships in family, and share the needs of parents and adolescents. The programme would allow them to share their ideas and expose the generation gap and giving tools of how to connect together. As a result, the members of their own families will be able to develop good relationships in families. I think that if they have good relationship, it will be easy for parents and their teenagers to talk together about any issues including sexual subjects.' (P5MIX father)

'The official staff, but I do not know who should be the best one to organise activities for parents and adolescents to promote their communication and relationship. It should be better if staff have continued refreshing projects for parents and adolescents and giving consult for parents who have trouble discussing sex with their teenagers.' (P3MIX mother)

'An expert speaker would be able train both parents and children on the topic of happy harmonious families, and to help them to understand the successful inter- relationship of parents and children.' (P4NC boy)

Parents suggested that their community should have a resource centre for distributing information about sex education.

'I think a centre for learning about sex education should be established as the resource centre for sexual information, and take advantage of available communications perhaps radio, or public address systems, and television programs. It allows every family in every village in Thai society to access information to gather necessary information and to pass it on to their children.' (P3D father)

'Doctors, nurses, and health clinic practitioners would be the best resource of sexual information. They should have a mobile counselling clinic at each village for families who need information about sexual matters or take appointments in order to meet face to face with problems to consult them directly.' (P2N mother)

Most participants in all groups noted that information and resources was available already from the local primary care unit in their village.

'Parents may gather information from brochures about prevention of pregnancy by using a condom provided by our primary care unit staff.' (P2D father)

'Mostly, I have searched sexual information from the primary care unit which has provided posters, and brochures about AIDS, and prevention of pregnancy by using a condom, and birth control pills.' (P2MIX mother)

'Parents need information from health care staff about how to safe sex in adolescents, and how to prevent STDs before providing this information to their children.' (P1NC boy)

'It is not difficult for parents to search about sexual information because many posters and information booths provided this subject at primary care units.' (P5NC girl)

A father and two male teenagers recognised that public health care officers should develop and distribute brochures about sex education to cover the subjects and meet the needs of families.

'The public health care officers in communities would develop brochures about sex education for the family. They would then distribute these to families so the parents can study these and acquire the knowledge before they pass the information on to their children.' (P1D father)

'The public health care officers in local areas receive and distribute the brochures provided by the central administration, which may not always answer the questions of people in various localities.' (P3N boy)

A mother and two teenagers recognised a need of sexual information provided by the government and private sectors.

'It would be the best if the government such as ministry of Public Health or other organisations supports the development handbook about parental communication about sex and general topics about family relationship for guidelines for every family.' (P4D mother)

'Public and private organisation should provide various media about sexual information to parents and teenagers can gather information easily such as radio, television, or the Internet.' (P2D boy)

'There should be a special hot line made available for parents and children to easily call to get information, filling gaps in information because it will help with providing individuals with information which is not only convenient but is somewhat private since the ones inquiring do not have go to public places to get information.' (P3NC girl)

A mother and teenagers indicated that the networks for sex education should be created.

'Parents and official staff should have activities to encourage discussion for parents, teachers, and public health care officers in order to know the needs of the children, and to join in

resolving problems when teenagers have risky behaviour. These activities should be dynamic networks of these groups.' (P3MIX mother)

'Parents, teenagers, teachers, public health care officers and community leaders should establish activities to encourage discussion about sexual health of teenagers, in order to discover the needs of each group and find ways to resolve problems, to encourage sexual health of teenagers together with their parents and build developing strong community relationships as well.' (PID boy)

'The chosen knowledgeable speaker would train parents, adolescents, and teachers together for improving the knowledge of sex education, sharing their views on sexual issues and creating network for sex education for them. For example, schools would organise the groups to have continual ongoing meetings with parents, providing them with information what schools have provided about sex education to their children. The parents are brought to have a clear picture and understand about what their children are studying, what parents' need of sex education from the schools' and what schools need in regard to cooperation from parents that will promote sexual health for adolescents.' (P6N girl)

Summary

The first three themes demonstrate a detailed in-depth description of how traditional values persist in North-Eastern Thailand and influence parents so that they do not discuss sex education matters with their children. Some parents may talk with their children, but in very general ways, often providing information that is superficial and unclear. Teenagers appeared to be embarking on sexual relationships with limited knowledge of the risks.

The findings suggested that parents considered that sexual health education was necessary for their teenagers and some of them wanted to teach their children about problems and how to prevent problems. However, most of them did not understand about sex education and they had negative attitudes to a sexual relationship before marriage. In addition, most of them felt that they lacked knowledge and confidence.

The overall findings from interviews indicated a strong influence of traditional cultural values in Thai rural society. Clearly, double standards concerning the social norms for premarital sex as applied to young women on one side and young men on the other existed within these rural villages. The restrictions imposed by traditional Thai culture limited the discussion of sex in Thai families, resulting in teenagers missing the opportunities to acquire knowledge on sexual matters. Parents and teenagers need help from various sectors to encourage parental knowledge on sex related issues before parents discuss sex with their children.

The next chapter presents discussion of the findings from the surveys and interviews in order to merge the findings and begin to consider these in relation to the wider body of knowledge explored in the literature review chapter. Discussion of the strengths and limitations of each method used and where they complement each other are also addressed.

CHAPTER 7

DISCUSSION

Introduction

This is the first time that knowledge, attitudes, opinions and perceptions of parents and teenagers in relation to premarital sex and sex education in rural Thai families have been explored side by side and in-depth, in a mixed methods study. In this discussion section, findings from the survey and the interviews will be merged where they complement each other, differences will be examined and appropriate comparisons made. Merging the data allows a complete picture to be given which draws on the rich data from all elements of the study. The two datasets enable important results to be considered and conclusions drawn. The themes from the interviews will be used to structure this chapter:

- the influence of traditional Thai society persists;
- talking about sex is difficult;
- sex happens
- towards the future

7.1 The influence of traditional Thai society persists

The findings of both survey and interview data demonstrated a picture of Thai traditional culture and its influence on the provision of sex education to young people in rural villages.

The survey findings demonstrated that most Thai parents in these rural locations had protective and restrictive views about male-female relationships. In relation to the statement ‘adolescents should not have a boyfriend or a girlfriend’, 71 parents (89.9%) agreed. In addition, 64 of them (81%) agreed with the statement ‘parents should punish their children if they have sexual relationships’. This view was also expressed in the focus groups of parents. However, parental concern about their sexually active children was discussed differently in one to one in-depth interviews. Parents said publicly that they did not accept their children being involved in relationships and their children respected their wishes yet privately they revealed that they did not have control over their children’s choices and so just tried to limit the potential damage by ensuring they understood something about contraception.

The findings also confirmed a deeply held acceptance of and adherence to double standards concerning sexual behaviour (Rasamimari *et al.*, 2007). There was a sense that there is an inequality that restricts girls much more than boys. Whilst in the survey data it appears that parents think that children of both sexes should not be considering sex it is clear in interviews that parents are much less concerned about sexual activity of their sons. Parents in the focus groups viewed having sex before marriage as a big mistake for female teenagers associating it with a loss of value.

Within these rural Thai families, parents generally believed that they had a responsibility to control their daughters particularly, to ensure they behaved within the bounds of the expectation of Thai customs. Parents said that they would punish their children if they were disobedient or misbehaved however on further examination they were referring mainly to daughters. The teenage children also believed that they would be punished if they opposed

their parents. It was common that teenage children mentioned worrying about parental punishment, even though punishment may or may not occur. Parents in focus groups commented strongly that they would set rules and exert control in order to protect their female teenagers from the perceived harms associated with premarital sex, the amount of room for negotiation by teenagers varied. They believed that strict supervision would keep the children, especially girls out of trouble. Some existing research evidence shows adolescents who perceived their parents to be disrespectful of their individuality demonstrate more frequent risky sexual behaviour, while balanced levels of parental monitoring have been shown to reduce the risk-taking behaviours of teenagers (Aunola & Nurmi, 2005). Imposition of many rules or conversely the lack of imposition of rules has been related to a greater likelihood of sexually risky behaviours among teenagers (Meschke *et al.*, 2002). Parents may thus be advised to seek a suitable measure of control over their teenagers in culturally and socially appropriate ways. Parents showed very rich insights into the struggle of parents to balance control and love for their children. It was particularly interesting that these data emerged in the privacy of in-depth interviews. These types of views and doubts may not have been freely expressed within the focus groups. Moreover, one girl shared her story in an interview which reflected the tension girls were faced with, between the need to appear well behaved and the need to develop. The girl said privately in the individual interview that she felt that she needed to present herself in the focus groups as having a good, moral reputation. She felt unable to be open about her own experiences in the focus group but was able to disclose more personal information on a one to one basis.

While the teenage children lived in families where a strong emphasis was placed on respect, they also appeared to be strongly influenced by Western culture. They wanted to have authority in making decisions and sometimes behaved in a way they wanted rather than according to their parents' wishes. However, most rural Thai parents in this study continued to claim that they were able to exercise parental authority over their children. This means that they believed that they were upholding the Thai cultural traditions and values that had been handed down through generations. These things to them are a part of what it means to be a Thai and a respected member of Thai society. The notion of expectations of a good Thai citizen is based on views expressed by the King who is held in the highest esteem in the rural communities. Teenagers may react to parental restriction in various ways, some may be accepting of parental authority but others may oppose parental authority, and the extent of this seemed to be according to the strength of individual relationships within the family.

Many of the teenagers experienced conflict and uncertainty because of this clash of cultural views. They were at the junction between traditional Thai culture and Western culture and were moving away from tradition. Teenage children like to be autonomous and try to reduce behaviour that shows dependency. The process of identity development makes teenage children likely to challenge adult authority, which may cause conflict and frustration between two generations (Eisenstadt, 1963).

Of course, this is not a new concept and it is recognised that teenagers often seek a new identity outside their families to develop their social maturity. However, the participating parents tried to stand firm on their views that teenagers could develop their maturity under family instruction.

The findings showed that uninhibited discussion between parents and their teenage children about sexual issues did not exist in these locations. The communication about sexuality was virtually always one way, and a strong parental message of disapproval prevented teenagers from being truthful with their parents. If parents have a poor relationship with their child, their child may feel too scared to ask about sex-related issues for fear of punishment. Young people in this study did ask for help but found their parents to be unable or unwilling to answer their questions. This situation partially resonates with existing knowledge that parents who have a close relationship with their child have been found to have more opportunities to share information on sex-related issues (Coleman, 1992). However, most parents and children in this study appeared to have close relationships yet did not communicate about sex. Therefore, one could suggest that closeness is only one ingredient in a recipe for good familial communication.

Teenagers in interviews showed less concern about parental demands and were unwilling to receive advice or be criticised. Moreover, while they tried to stay away from parents, a feeling of fear about their parents' reactions had driven them to be with friends and peers instead. This contrasts with Solomon *et al.* (2002) whose study of English teenagers showed openness in discussion with their parents. Furthermore, a study in Northern Ireland found similarly that many parents in lower socio-economic groups described open jovial discussion with their adolescents about sexual issues (Hyde *et al.*, 2009). A study by Schalet (2000) about how American and Dutch parents construct adolescent sexuality found that Dutch parents had greater acceptance of adolescent sexuality than American parents. They strongly promoted sexual responsibility and accommodated adolescent sexuality into the family routines, rather than viewing it as a dangerous threat that needed to be controlled in an authoritarian way.

These Dutch parents reported that they would allow their 16 years old children to sleep with a boyfriend or girlfriend in the home and they strongly promoted contraception and sexual responsibility, while most American parents would reject this idea and only accepted a policy of abstinence (Schalet, 2000). However, the teenage pregnancy rates in the USA were still higher than most other developed western countries (Mabray & Labauve, 2002). Unlike Dutch parents, rural Thai parents in this study demonstrated an attitude of restriction of their teenagers. It would seem almost impossible for them to accept the situation of young people sleeping with partners in the parental home.

This study highlighted many limitations in parent-child communication about sex. Very prominently, the findings confirmed that Thai socio-cultural norms still discourage the discussion of sexual issues within families. Thirty-six parents (45.6%) felt embarrassed to bring up sex-related subjects with their children. The interview data showed that Thai society made it virtually impossible for parents to discuss sex openly with their teenagers and that sexual matters were taboo subjects. Liu *et al.* (2006) found that rural communities were closely involved in each other's lives and were inclined to closely observe the behaviour of neighbours, therefore relationships between the young people were a particular subject of interest. This resonates strongly with the concerns voiced by participants of this study in relation to what their neighbours thought about how they raised their children. This type of social control ensured that village life was maintained and the co-dependence of villagers remained unchanged. If it became known that parents spoke about sex-related issues with their children, they would appear strange to other villagers. This caused parents and teenagers discomfort and neither felt able to initiate discussions about sex. The interview data showed that if parents had a daughter who was perceived to be misbehaving, the family would also

lose face. Parents of a wayward teenage girl would risk being ostracised by their peers because their parenting would be judged as poor and they would be seen as lacking in personal moral judgement for not correctly instructing their daughter. A similar picture was reported in other South Asian countries, where adolescents tended to be poorly informed about their own bodies and matters related to sexuality and health. Parents often expect their daughters to remain uninformed about sex (Bott & Jejeebhoy, 2003). In contrast, a study in Northern Ireland outlined how parents tried to promote openness with their children by inviting their teenagers to feel free to ask any questions on sexual issues. This was in contrast with their (i.e. the parents') own experiences as adolescents whose parents kept silent about sexual issues (Hyde *et al.*, 2009).

In this study the publicly held views about policing teenage behaviour were different to those voiced in the in-depth interviews. During their one-to-one interviews parents demonstrated a real concern for their children and referred to strategies to try to ensure they had enough knowledge to protect themselves from harm. They recognised that the traditional restrictions did not work and voiced their own private strategies, which were often more flexible than those displayed in focus groups. Interestingly, some parents were able to discuss sensitive issues with their children and disclosed this in the privacy afforded to them in a one-to-one in-depth interview. They confided that they were able to have these discussions, though sometimes uncomfortable with their children but were rather more reluctant to share the fact that they did this among their peer group of parents because they feared being judged.

A large proportion of parents, 67 of total 79 parents (84.8%) in the survey opposed the idea that parents should be the first people to teach their children about sex and relationships.

Parents' adherence to traditional values was important and in public parents reported a desire that their children should behave 'properly'. The same parents expressed the belief they did not have a duty to provide sex education for their children. This meant in the teenagers' interpretation that their parents were not interested in sex-related issues and did not give any importance to this subject. The young people regarded their parents' views as old fashioned but were constrained by respect for their parents. They were able to voice these opinions only within the safe focus group environment with their peers and not in the presence of their parents. Avoiding awkwardness and embarrassment, both parties chose not to mention the subject of sex education at home. This restraint contrasts with an Australian study where 95% of parents believed that they were primary sources for sex education to their children (Goldman, 2008).

When teenage relationships result in unwanted pregnancies the lack of communication became most pronounced. The teenagers worried about their parents' fear of losing face in the community and the resulting strictness in upholding the status quo. This persuaded teenage girls to try to conceal their pregnancy, attempting to solve the problem on their own. Only once all means of doing so had been exhausted would they seek help from their families. This may signal cultural differences between Thailand and western countries. It should be noted that the lack of reciprocity between parents and children in talking about sex-related issues was explicit in this study. The power relationships between parents and their children are unequal in Thai society. Through its hierarchical structure, the young are subordinate to the old, and one of the prime responsibilities placed on children is to take care of the parents in their old age. Thai culture expects young members of the family to be deferential, obedient, and respectful towards their elders. Promoting open and honest communication between

parents and their teenagers, particularly in relation to very sensitive subjects, would require a cultural shift (Elliott & Gray, 2000).

Thai teenagers in this study not only felt that they lacked support from their parents when they experienced problems related to sexuality or relationships but the survey findings also suggested that teenagers, especially girls, had problems getting advice from health care staff. Forty-six teenagers of both sexes (58.2%) did not feel the talk was private and confidential and they felt worried that they might be judged by health care staff. This was compounded by teenagers who stated during their interviews that they had limited information about sexual health services. As a result, sexually active female teenagers were concerned that health care workers labelled them as 'bad girls'. Despite their strongly declared rejection of any kind of sexual relationship for teenagers 73 parents (92.4%) reported in the survey that health care workers should provide family planning services for teenagers. In interviews, parents reinforced this view and teenagers suggested family planning services needed to be available and accessible for adolescents. However, most parents did not know about what services were available, or how they or their teenagers could benefit from them. This suggests that more work needs to be done in making services available as well as advertising their existence. In Thailand the Ministry of Public Health had established the 'Friend's Corner' project, which aimed to provide consultation on health and sexual issues for teenagers within almost 76 provinces in the country. The principle of the project was clearly to provide teenagers with the opportunity to acquire help when they have sexual health problems, and have an easily available source of accurate information. There is no national data available to show how many teenagers actually participated and sought assistance (UNFPA, 2005). However, it was discontinued following an evaluation that questioned the quality of the project.

The characteristics of health care workers were considered to be more of a barrier to adolescents' decisions to seek health care than the site or system (Ginsburg *et al.*, 1997). The way in which the health care workers attitudes may affect service provision has been examined in a study by Mathur *et al.* (2001) in Nepal which showed health care workers felt reluctant to discuss issues related to reproductive health and sexuality with teenage girls and counselling skills were limited.

Schools were seen as the preferred focus of learning about sex-related issues in all three locations in Udon Thani. Forty-two parents (53.2%) in survey findings and parents in interviews suggested that sex and relationships should be taught in schools. However, the actual teaching was reported to be not fully satisfactory and appropriate in a number of areas. The curriculum of Thai school sex education has been criticised as limited (Liu *et al.*, 2006). The survey data showed that most teenagers had not received sex education from schools in most of the topics I asked about in the questionnaire, for example in the topics of 'abortion', 'being gay or lesbian'. Interview data indicated that the information teenagers had was superficial and teachers were not active in providing sex education to pupils. It was not clear about how sex education in school was controlled. This study provides further evidence of the need to update the current provision. Thai sex education policy needs much wider political and public debates on the matter of discrimination based on one's sexual orientation such as gay, lesbian, or bisexual.

Previous research has suggested that school sex education could fail if it does not provide information that meets the needs of teenagers (Measor *et al.*, 2000; Allen, 2005). Parents want schools to provide them with information about the timing and content of sex education

provided by the school to their children (Walker, 2001) and include parent information sessions (Milton, 2003). The parents in this study indicated in the focus groups that there was little communication and coordination between school and home about sex education. Schools rarely gave any information to them about their children. These findings suggest a need for more communication and support between schools and parents.

An earlier study reported that many Thai parents, teachers, and health service staff still feel reluctant and lack skills in addressing sexual matters (UNFPA, 2005). Similarly, most participating parents in this study lacked the required knowledge to teach their children and did not understand very much about sex education. Therefore, sex education in the curriculum not only needs to be reviewed to ensure that it meets the needs of students, it is also essential that future sex education programmes provide information and education to parents. However, my study did not aim to evaluate the school sex education programme specifically.

The taboo towards sexuality and their unequal status may also limit the opportunities for girls to get information about their sexuality and the biological functioning of their bodies in relation to sex and reproduction. The survey findings showed that both genders stated schools should provide information about the topic of abortion for them. However, sensitivity of this issue may also limit the opportunity for young people to get this kind of information. This may be a very difficult issue to discuss within sex education programmes because of social taboos and the legal situation surrounding abortion. Girls or boys who had experience with procuring an abortion recognised that it was not socially acceptable. One girl who had experience of abortion did not discuss the issue in focus groups but she shared her experience only within the private environment of the in-depth interview. Other teenagers articulated knowledge of

abortifacients and their acquisition but did not reveal how they had learned about these. The participating adolescents acquired knowledge about sex and contraception from many sources, with peers being their preferred option. This replicates findings by previous studies such as Vuttanont *et al.* (2006) that close friends were a more convenient resource than parents. One study of teenagers in the UK demonstrated that friends and peers were the preferred source of sexual information rather than parents (Powell, 2008). The findings showed that 62 teenagers of both sexes felt more comfortable to talk with friends of the same age and gender (78.5%) because they regarded them as understanding and there was less worry about embarrassment (Powell, 2008).

The Internet also allowed young Thais to search sexuality-related issues and exposed them to new, more liberal views on sex as well as to unrealistic, inappropriate and pornographic materials. This can be harmful (Meenagh, 2003), but regulating the information accessed would be difficult (Measor *et al.*, 2000) and parental awareness of the availability of sexual information online was also seen to be lacking. The Internet had become an important resource conveying information, promoting health knowledge for young people. Parents were aware that adolescents seek information from sources such as friends and television, but they preferred and trusted schools and teachers as the best sources of information because of their limitations of knowledge.

Overall, the findings of this study indicated that teenagers relied on their peers more than they relied on their parents for information about sexual related issues. However, the extent of the lack of knowledge and embarrassment of parents in this study might mean that parents were unlikely to seek opportunities to discuss sex with their children. They did not regard it as part

of their role although they at the same time expected that their children behaved in a manner that did not bring the family into disgrace in their village society. The continuing double standard concerning appropriate behaviour for girls was a very strong presence that will need to be emphasised as a challenge for any future sex education programme. The double standard will need to be challenged by teachers and others involved in sex education as it disadvantages girls and confuses young people. At the same time parents need to develop communication skills and confidence before talking about sex related issues with their children.

7.2 Talking about sex is difficult

Almost 100% parents stated that they had never had direct communication with their children about sexuality. Seventy teenagers of both sexes reported that they were highly unlikely to seek conversations about sex and relationships with their fathers (88.6%). Fifty-seven teenagers of both sexes (72.2%) had never talked about sex with their mothers and 45 teenagers (57%) had never discussed the sexual matters with their teachers. This could be due to fear of punishment and respect for authority. Conversely, a significant cultural difference in parent-child communication about sex between the UK and Thailand is demonstrated by a study in Northern Ireland, where only a few parents had never discussed sex with their children. There, many parents addressed various strategies suitable for their children's age, including leaving reading matter for their children, usually between the ages of 10 and 13 years (Hyde *et al.*, 2009).

Parents in my study often used prevention strategies instead. Parents transmitted the knowledge to their children by talking generally about pregnancy and disease prevention. This was consistent with earlier findings in western countries, which demonstrated that parents tended to place restrictions to prevent their girls from being involved in sex rather than providing any sexual information (Walker, 2001; Walker *et al.*, 2008). Overall, the result of this study supported previous studies in other countries. The parents and adolescents participating in this study highlighted an array of limitations of parent-child communication about sex. Parents seemed to focus more on negative outcomes of sexual intercourse especially unplanned pregnancy, and less on what adolescents should know to understand how they are growing and developing. Most imparted high levels of unease and awkwardness, although the degree varied.

The participating parents reported being uncertain about and reluctant to discuss sexuality and sexual matters with their children, and they needed information and skills to talk about such matters with their children. Forty-eight parents in these locations (60.8%) graduated only at primary education level. They lacked knowledge and confidence in their ability to discuss the subject of sex education with their children, attributing this, at least in part, to their lack of relevant knowledge and to their low levels of educational achievement. While most teenage children had higher educational levels than their parents did, there was a gap between parents and children in discussions about sex. Parents highlighted in interviews how they had difficulties discussing sex with their teenagers because of the fragility of their own confidence, fearing that their teenagers might regard their views as old fashioned. As these parents experienced difficulties providing sexual related information, they expected schools to be the primary source of such information because they respected the teachers' knowledge.

Research by others has found that parental education is associated with lower adolescent sexual activity, delayed sexual initiation, safer sexual practices and lower risks of pregnancy (Santelli *et al.*, 2000; Bakken & Winter, 2002; Manlove *et al.*, 2006). Most Vietnamese parents lack knowledge about sexual issues and are unable to provide the sexual information needed by their teenagers. They limit their sexual health education to warning of the negative consequences of having sex (Trinh *et al.*, 2009). On the other hand, mothers with a higher level of education are more likely to have discussions with their teenagers about sex, as a US studies reports (Lefkowitz *et al.*, 2003). These findings resonate with results by Podhista *et al.* (2001), who found Thai teenagers whose parents had no formal education more commonly to be involved in premarital sex compared to those whose parents had at least some formal education. Most parents in this study had low educational levels thus limiting their ability to provide sex education to their children. A lack of parental knowledge could lead to a lack of accurate and factual information about sex-related issues leading to more frequent risky sexual behaviours in their children. This study did not focus on whether parental education levels influence sexual risk behaviours of teenagers. However, future sex education policies need to be focussed on targeting these factors.

Most parents, 65 of total 79 parents, worked long hours as farmers (82.3%) and generally were very poor, others had moved to urban employment leaving their children behind, possibly in the care of grandparents, which widened the generation gap even further. This made establishing trusting relationships between parents and teenagers even more difficult and hindered parent-child communication further.

Eisenberg *et al.* (2006) found that where parent-child communication about sex-related issues took place before adolescent romantic involvement teenagers demonstrated knowledge of safe sexual practice. However, most parents in this study had difficulty in identifying how much knowledge about sexuality they should impart, and were concerned that giving too much information, particularly that knowledge about contraception would encourage sexual activity.

Seventy-five parents (94.9%) did not see the necessity of talking about sexual health with their children early. They stated that information about contraception was unnecessary if the adolescent was not in a relationship. This is in contradiction with the survey findings that most parents agreed that teenagers should have access to sexual health advice and services. Possibly parents might trust health care staff and prefer to leave the sexual reproductive health care advice and service with health workers. However, 67 parents (84.8%) stated that their children could talk about sexual matters with them. It was clear that parents were concerned that their children wanted to know about sex education but they worried that the children would experiment if they had information early. This was a view with which 30% of parents agreed in the survey. This corroborates interview findings that parents felt their teenagers were not mature enough to deal with sexual issues, which replicated similar findings by Trinh *et al.* (2009) in rural Vietnam. There, parents were also very concerned that children would experiment if they were provided with knowledge about sex and contraception. Evidence suggests that with sex education and confidence building skills, young people were less likely to engage in unsafe or coercive sex (Rivers & Aggleton, 2001).

Most parents in this study suggested that their teenagers were too young for sex education and were likely to underestimate their teenager's sexual risk behaviours. As a result, the delaying

effect of information on the commencement of sexual activity by the adolescents is missed and safer sexual practices are not encouraged. In fact, parents demonstrated their misconception of their children's behaviour in the in-depth interviews. This showed a vulnerability in parents that was not so obvious in the focus groups. Parents were worried that they may not be reading their children's situations accurately and the data displayed a covert concern about their abilities to keep their children safe.

The broad findings in the survey showed that teenagers of both sexes were highly unlikely to seek conversations about sex and relationships with their parents. However, the level of communication about sex-related issues between parents and adolescents varied by gender. Mothers played a more pronounced role than fathers did in communication with their teenage children, especially with their daughters (Guilamo-Ramos & Bouris, 2008). The survey findings demonstrated that teenagers discussed sex with their mothers rather than with their fathers. This was corroborated in interviews, most parents and teenagers of both sexes preferred that mothers should be the person that the son or daughter consulted because they were closest to the children. The reason given for this was that usually the father was working away from home. This line of argument is also present in the literature where Thompson and Walker (1989) advocate that a child's relationship with their mother may be even more important than otherwise thought. They conclude that if mother-child interaction is routine, enjoyable, and supportive, maternal involvement is likely to exert positive effects on children. Accordingly, the majority of previous studies have been conducted with mothers in relation to parent-child communication about sex.

However, it is important to distinguish between one-to-one interviews and group interviews because of the very personal nature of the revelations made in one-to-one interviews. This study's findings show some teenagers sought advice from their parents who were the same sex as them rather than speaking with parents of the opposite sex. It was also noted that same gender discourse affects the experience of providing sexuality education to young people. Fathers were expected to act as providers of sex education to their sons; nevertheless, it was not a frequent occurrence, with only a minority of fathers becoming actively involved in the provision of sex education to their children of either sex. Fathers might serve as a role model to influence sexual behaviours of teenagers through their behaviours rather than verbal communication. Teenagers who live with both natural parents might feel less attached to their fathers than their mothers (Kirkman *et al.*, 2002). This findings resonates with a study in Northern Ireland which found that some young men may miss out on important aspects of sex education, because of the reluctance of some fathers in communicating with their sons (Hyde *et al.*, 2009).

7.3 Sex happens

In interviews, findings showed most male teenagers went out even with permission from their parents and they reported having sex with their girlfriends. Most parents accepted that their sons had sexual relationships yet girls were regarded as losing self-respect as well as their virginity in this situation. It was hard for the female teenager to admit to having a sexual relationship because of concerns about her parents and her future. Only one girl talked about her experience of unintended pregnancy and abortion in one to one in-depth interviews but she did not talk about her situation in the focus group. None of the other girls said that they had

been involved in sexual relationships. Given the severity of the issue, underreporting among females as a result of cultural norms in these conservative settings might well be possible and therefore it remains impossible to say whether or not any of these female participants were involved in sexual relationships. The contrasting assertions by some of the participating boys may potentially be attributed to over-reporting among males who felt proud to show their sexual relations as a sign of their maturity.

Traditional values still had considerable influence on most Thais in these locations. If the female teenagers were involved in a sexual relationship, they would seem to have a disadvantage in the relationship in various ways. They did not have power to negotiate with the male teenagers and often agreed to have a sexual relationship to keep their boyfriend. The fear of losing their boyfriend, or incurring his anger appeared to be an important factor inhibiting female teenagers from exercising choice in delaying of sexual debut or negotiating contraceptive use. Girls indicated their embarrassment about suggesting the use of condoms demonstrating little control over sexual decision-making. According to UNFPA (2005), cultural norms made female teenagers embarrassed to ask their boyfriends to use condoms when having sex because it implied mistrust and it was impossible for female teenagers to carry condoms because they would be viewed as a 'sexually experienced girl' or even a 'sex worker'.

It is well established that women are more concerned about health issues than men (Graham, 1983). The survey findings demonstrated that female teenagers had higher mean scores than male teenagers in most topics of the awareness of importance of using condoms when having sex. The majority of teenagers of both sexes, 73 of total 79 teenagers, (92.4%) suggested that a

condom was an effective way of protecting against sexually transmitted diseases, and they agreed that before having sex the partners could suggest using condoms. However, in one-to-one interviews, most of the male teenagers admitted that they did neither use condoms consistently, nor always effectively. Instead, they tended to distance themselves from perceiving personal risks.

The survey and interview data also demonstrated that teenagers, who were involved in sexual activities, did not consider the ramifications of the risks involved in unprotected sexual relations such as unwanted pregnancy, abortion, or sexual transmitted infections (STIs). Most parents who considered the use of condoms thought only about pregnancy and not about STIs as shown in the qualitative findings. Previous studies in Thailand such as that by Thato *et al.* (2003) found that Thai teenagers had little and at times confused information about the potential outcomes of unprotected intercourse. In addition, they argued that in Thai culture, having sex without condoms might also be seen as a show of trust with partners.

Thai teenagers were aware of the need to use condoms to prevent STIs or AIDS because condoms have been promoted by health care staff only as protection against diseases, and not as a contraceptive method (Gray *et al.*, 1999). The evidence of this study showed that teenagers needed correct information related to sexual issues helping them develop skills to protect themselves when they became sexually active. Thirty-three teenagers of both sexes (41.8%) demonstrated in the survey that they knew any sexual encounter could result in pregnancy. Nevertheless teenagers of both genders had a poor understanding of contraceptive methods, while married adults may be able to obtain information easily. This was in contrast with a UK study that showed teenagers used a condom for contraception for fear of unplanned

pregnancy, which was the highest concern among teenagers (Wight, 1992). Even if teenagers had not used condoms for prevention of pregnancy, they had used other methods of contraception such as pills or injection (Jones, 2004).

The teenagers in this present study did not know much about the contraceptive injection, or emergency contraception. A previous study by Warakamin *et al.* (2004) reported that the most important reason for not using contraception given by women who had undergone induced abortion was not expecting to become pregnant (61.6%).

In addition, the survey findings demonstrated that no respondents of either sex mentioned Chlamydia was a potential consequence of having sex. Moreover, 17 teenagers of both sexes (21.5%) believed that some diseases such as diabetes, malaria, or measles were diseases that they can catch by having sexual intercourse. That means teenagers in these locations had insufficient knowledge related to sexual transmitted diseases.

Inadequate understanding of proper use of contraceptive methods might lead to contraceptive failure and an unplanned pregnancy. Unplanned births among teenagers are common in developed countries, especially in the United States, where 73% of 15-19 years old giving birth reported that their pregnancies were unplanned, some 10-16% in India, Indonesia, and Pakistan, compared to 20-45% in the rest of Asia (WHO, 2007a). However, the findings in this study highlighted the restrictions imposed by traditional Thai culture, which meant that girls who encountered problems such as pregnancy asked for help from parents only after they had failed to deal with the 'problem' themselves. The focus group data indicated parents and adolescents thought that Mali (the girl in the scenario) might worry that others would know

about her having sex and her neighbours might blame her and she might be punished by her parents or might drop out of school. By contrast, sexually active male teenagers were accepted and it was not taboo for boys to have sex before marriage. As a result, the girl needed to keep the situation of sexual activities from public scrutiny for fear that her parents would lose face in the village society. Ideally, teenagers should get information about sexual issues from their parents. However, significant numbers of teenagers reported getting little or no information from their parents in reality. The interview data revealed a lack of understanding of the difficulties female teenagers confronted in expressing their needs. They were unlikely to seek the support or assistance of their parents and they turned to peers in addressing sexual health problems.

Unmarried pregnant women in most developing countries have less autonomy and are totally dependent on their partner or parents for approval to access health care services. Therefore, they have severely limited access to health care services. Unmarried adolescents have been found to be more likely than older married women to seek unsafe abortion. They also tended to delay seeking abortion and then resorted to the use of less skilled illegal providers, because they lacked social support, financial resources, and were concerned about confidentiality and provider attitudes (Bott, 2000; Bott & Jejeebhoy, 2003). Teenagers may have considered complications of induced abortions but the strong social stigmatisation might be the greater concern for female teenagers than the risk of death and illness associated with unsafe abortion (WHO, 2007a). They were more likely than adults to deny their pregnancy and not recognise the signs of pregnancy. Almost three-quarters of cases of illegal abortion reported post-abortion morbidity according to Bott and Jejeebhoy (2003). Moreover, it was difficult to know the accuracy of unsafe abortion data because this data tended to measure only women who

both sought help when suffering complications and were able to access hospital care (Warakamin *et al.*, 2004).

It is a challenge for health professionals to gain accurate information regarding the incidence of induced abortions. At present health care policies do not address the issues of unsafe abortions. The consequences following complications from this illegal practice are a serious threat to the health of women. However, abortion remains illegal and therefore women continue to seek alternative means of dealing with unplanned and unwanted pregnancies. This makes it very important to consider the provision of contraceptive advice and services for young women.

The interview data gave a detailed in-depth view of the way families dealt with issues of teenage sexuality within the context of their traditional rules and codes of conduct. In rural areas the contraception unit was regarded by the public as a service for married people (usually women), which means that teenagers of both sexes felt unable to approach professionals for contraception. It is important, for local areas to improve and understand that teenagers needed to be well informed about contraception, and services needed to be accessible to teenagers. Furthermore, programmes that aim to improve life skills among adolescents are needed to encourage male teenagers to take responsibility to ensure safe sex in their partnerships. Programmes that build female teenager's confidence to make informed choices and sexual health decisions to ensure safe sex are also needed.

7.4 Contribution to knowledge

This study is contextualised in its setting in rural Thai society. It highlights the tensions that parents and children face in dealing with issues of teenage sexuality. Parents in this study present two view points. One is the publicly held view that is acceptable in Thai society that premarital sex is wrong. The other view is only expressed privately and shows their deep concern and willingness to help their teenagers to deal with premarital sexual relationships. This study highlights the need for a suitable guideline helping rural Thai parents to learn how to begin discussing sex with their teenage children. Although some knowledge generated reflects findings found in existing literature, the solutions for the western studies are not suitable to apply in Thai society because of cultural sensitivity. A growing disparity between the so called ‘westernised ideals’ that have been adopted by the young generation and parents who were reared in a socially and culturally controlled age is a challenging issue for those who teach sex education. The tension is due to the changes brought about by modernisation through media and education and not simply the tensions due to a generation gap. This divergence is especially apparent in the way parents feel compelled to preserve and promote the long held and rigid cultural and traditional views regarding premarital sex despite knowing their children want to adopt a less constrained life.

In contrast to western society where change is viewed as progressive and normal, most Thai parents in this study could not accept wide sweeping changes suggested by the modern world, implementing new norms and standards without constraint, which are obviously not suitable in Thai society where the very fabric of life is interwoven with their connection with their ancient beliefs and culture. Thai rural teenagers today with all persuasive media and have more freedom to expose western values much more than their previous generations.

The initial response of Thai parents is often to display an overt rejection of perceived westernisation of their teenage children, especially in regard to sexual matters, holding to the view that premarital sex is unacceptable. However, knowing the increasing risks involved, parents in rural areas are now facing the uncomfortable position which obligates them to instruct their children about the need to be safeguard themselves from pregnancy and sexually transmitted diseases. This is a dilemma which not only demands they acknowledge the culturally abhorrent moral state of teenagers today, but also forces them to deal openly with sexual situations, teaching about issues undefined by their accepted traditional cultural background.

Parents recognise the importance of sex education but they have limited knowledge and experience about how to initiate the subject they must communicate to their teenage children. Added to that, they are also keenly aware that their generation was offered only limited primary school level studies, excluding the study of sex education. In contrast today's adolescents are offered education through the twelfth grade which includes sex education as a normal academic subject. Their perceived lack of confidence is heightened because the subject matter of sex in accepted Thai culture is relegated to personal, private discussion and it is considered disgraceful to discuss sex openly. Therefore, I see the outstanding challenge, the significance and importance of the task to assist Thai parents with sex education of their children. Attention must be made in developing the competency and knowledge base among the parents in rural Thai society in order to empower parents to discuss sexual issues with their children.

CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter is divided into two parts. The first part offers an overall conclusion and provides some reflections on the strengths and limitations of the study. The second part presents the recommendations which are drawn from research findings and are linked clearly to the data and analyses. The recommendations are provided at the level of policy and practice and aim to provide direction for ways in which parents can be helped to become involved in sex education for their teenagers. In addition, recommendations are made for further education and research.

8.1 Overall conclusion

This research, the first to be conducted in a rural context in Thailand, explored the opinions and perceptions of both parents and adolescents about involvement of parents in the sex education of their teenage children, using mixed methods. The surveys, focus groups, and one-to-one interviews were conducted with parents and teenagers in three rural villages, in North-Eastern Thailand. Descriptive and inferential statistics were used to analyse the survey data, and thematic analysis was used to analyse text from the interviews. The triangulation of the

survey findings and interview findings give strength and helps to decrease the bias of each method to fully understand in breadth and depth the views of parents and adolescents towards sexual matters. This study demonstrates existing attitudes relating to premarital sex, and the provision of sex education by parents.

The perceptions displayed by the participants in relation to premarital sex between teenagers of both sexes in this rural society highlighted a situation of gender inequality. This village society expects girls to keep their virginity until marriage as moral behaviour while premarital sex is accepted for a young man. This double standard is accepted as the social norm across generations and no parent respondents showed their need to go against this social norm. Losing virginity of the unmarried girl is acknowledged by villagers as losing the family's reputation. Poor reproductive health outcomes are a likely consequence resulting from premarital sex among teenagers, especially girls, who would hesitate to seek advice from their parents or health professionals because of the identified double standards. Parents are usually the last ones to know if their daughters have become pregnant and only if their teenagers were not successful in resolving the pregnancy alone. The findings showed Thai teenagers themselves used illegal abortion as a means solve the problem of an unplanned pregnancy. There was less fear about undergoing dangerous illegal procedures than about facing their parents and bringing disgrace upon their families.

Thai teenagers in these remote areas do not have opportunities to learn about sex and relationships from their parents. The existing limitations and barriers that prevent parents from talking about sex with their children originated from the traditional restrictions, most parents perceived that most families did not talk about sex with their children. It is culturally

unacceptable to discuss sexual matters openly and therefore discussions within families are limited.

Moreover, most parents lacked knowledge and confidence in discussing sex with their children and most of them worked long hours at their rice fields. The provision of sex education is left to teachers within the school curriculum. However, viewing these findings as purely negative might be neglectful, as there are opportunities that can arise from a problematic issue. These new insights provide potentially important directions for future policies on health education and for research on talking in families about sexuality and sex education. Parents could be viewed as change agents who with support and training could become valuable sources of information. They have the potential to help shape safe and healthy sexual beliefs and behaviours in their children. Some findings supported the existing knowledge from both western and eastern countries. However, there are unique findings, originating in this research that has not previously been well described or identified in the existing knowledge base.

The existence of the sexual double standard was very strongly ingrained in this rural Thai society. By providing an insight into a persisting mindset in north-eastern rural Thailand this study illuminated some of the challenges for tackling the social changes brought by industrialisation. Young people, through their access to the media, especially television and the Internet, were becoming aware of a different set of social values, which challenge deeply held traditional beliefs of their parents. This issue clearly needs to be challenged by teachers and others involved in sex education as it disadvantages girls and confuses young people. This is the first time that the views, experiences, and opinions of parents and children in rural

Thailand have been explored in relation to the issue of sex education. It highlighted the fact that parents did not regard communication about sex with their teenage children as part of their role, although they at the same time expected that their teenage children would behave in a manner, which did not bring the family into disgrace in their village society. Helping parents to reduce their barriers and encouraging them to play a proactive role in provision of sex education to their children will be a critical consideration in promoting effective change in sex education in rural communities.

8.2 The strengths of this study

This study exposed the importance of conducting mixed methods research, which allowed me to present a fuller picture based on the findings. The great strength of pragmatism is a bridge between paradigms which allows for the diversity in methods available to researchers to generate knowledge in practice (Giddings, 2006).

Using a variety of data collection tools is not without criticism because it has been argued that triangulation has been used with a lack of awareness of the incompatibility associated with various methods (Blaikie, 1991). The researcher needs to recognise that interpretation needs to take account of the empirical reality of each of the methods. Each method has its own strengths and weaknesses and these can be seen as competing rather than complementing each other. In some cases one method is regarded by the researchers as taking precedence over the other and if that is the case then triangulation is not being demonstrated (Hammersley, 2008).

Silverman (1993, page 158) claimed that a test of validity is the major problem with triangulation by 'counterposing different contexts, ignores context-bound and skilful character of social interaction as assumes the members are 'cultural dopes', who need a sociologist to dispel their illusions'.

For some researchers the use of triangulation has been focused on its values to overcome problems of bias and validity rather than 'simply establishing the existence of some phenomenon, or values that it advocates the combination of different methods rather than the use of single method' (Blaikie, 1991, page 123). Often triangulation is said to synthesise the results but this is very difficult if there are differences in the findings of quantitative and qualitative data.

Giddings asserts that when used in a convincing way triangulation can integrate quantitative and qualitative findings to demonstrate 'more evidence and more confidence in the 'truth value' of the outcomes' (Giddings, 2006, page 196) and more importantly to answer the research questions rather than to concentrate on either method used (Creswell, *et al.*, 2004; Bryman, 2006).

Therefore, the researcher should be concerned about how values of triangulation strategy make a fuller picture which brings different strengths together to overcome the deficiencies of any one method providing insights into the phenomena within a single study rather than focusing on only assessing the validity of the accounts that informants provide (Blaikie, 1991; Gilbert, 2006).

This challenged me to consider how to interpret both convergence and divergence of findings from the use of different methods or data sources. The study illustrates how triangulation of data gains depth of understanding of premarital sex and sex education by parents in rural Thai societies.

The survey gave a broad picture of knowledge and attitudes of parents and children regarding sex education generally and particular aspects such as contraception and safe sex practices. It highlighted limitations in knowledge and misunderstandings of methods of contraception and prevention of STIs. The interviews allowed me to sample from the same population to explore these perceptions and understand the attitudes in greater depth. Interestingly, focusing on qualitative data from the focus groups and one-to one in-depth interviews demonstrated two quite different perspectives from the same group. Many participants, especially parents often expressed views publicly in focus groups that differed from those they revealed privately in the in-depth interviews. For example, all parents indicated in focus groups that they did not accept their children being involved in sexual relationships, yet privately they stated that they knew that their children may be involved in sexually risky behaviours and they tried to resolve issues and give advice to their children. Perhaps they feared being judged by the peer groups and did not want to be seen to go against their social norms. In itself, this provides some evidence that the traditional values are becoming weaker in their hold on society. Some parents were going against the socially accepted norms by discussing sex with their children. However, at the same time they were still respectful of the social values in their community because they were not prepared to discuss their untraditional behaviour in public. This is the challenge for national and international researchers to develop and apply quantitative and qualitative methods to provide in-depth answers to sensitive research questions. It also

highlighted the weakness and strengths of each method that could give full understanding of the phenomena. The focus group is the useful way to promote discussion in the sensitive issue of sexuality. The use of a scenario was an appropriate way to stimulate and allow participants to express their views on such issues without revealing their own situations. The focus groups also enabled the participants to get to know the researcher and establish trust. This then enabled them to make a judgement which allowed them to disclose much more personal details in the individual in-depth interviews. This therefore is an advantage of conducting the focus group before beginning one to one interviews. It seems unlikely given the strict codes of behaviour in these villages that participants would have revealed their personal information if they had not previously participated in the focus group activity.

8.3 Limitations of the study

This study was conducted in only three rural villages in the north-eastern region of Thailand. Its sample was narrow in its limitation to one province but provided good representation of the teenagers and their parents in those areas and a good platform for the participants to outline their views. The data gave a detailed in-depth view of the way families deal with issues of teenage sexuality within the context of their traditional rules and codes of conduct. It strongly demonstrated how traditional values persisted in North-Eastern Thailand. Applying these findings uncritically across all parts of Thai society may not be possible, because of even stronger Western influence apparent within large cities. It could not fully encompass the cultural diversity of the country. However, many of the issues considered resonate clearly with already existing literature. It is therefore likely that the findings of this study and its

implications may be transferable to other rural areas in Thailand and its Southeast Asian neighbours.

While parents showed that they wanted school to take a lead in sex education, it is important for further research to explore teachers' views about sex education. Other groups such as health care workers and community groups should be included in future research in order to make recommendations to improve sex education. Moreover, this study was limited since the attention was focused upon adolescents aged 15 to 18 years old. The experiences of adolescents and parents communicating might differ depending on whether the children were in early, middle, or late adolescence. Therefore, research related to parent-child communication using different age groups, especially pre-adolescents should be considered. However, many of the parents in this study thought their children aged 15-18 years were too young to discuss sex; so it would be difficult to imagine parents of pre-adolescents having more liberal views.

The structured use of a case-vignette enabled participants to relax and actively share their views without having to disclose personal information. Nevertheless, not all focus group participants may have felt able to contribute equally and some may have been influenced by peer pressure, feeling unable to voice opinions that countered the views of others. This highlights the importance of using individual interviews as well to capture more personal views that may otherwise have been missed.

8.4 Recommendations for health care policy

8.4.1 Improving sex education policy and integrating parents as the target

Currently Thai national sex education policy has not made clear the parental role regarding sex education for their children (MOPH & WHO, 2003). Even though the guidelines for sex education implementation in schools have been clearly identified, the current guidebook has been used in a pilot project for some 20 to 30 primary and secondary schools (UNFPA, 2005). Sex education curricula for Thai secondary schools has been developed by the Program for Appropriate Technology in Health (PATH) since 2003. This organisation co-operates with the Ministry of Education and Ministry of Public Health, Thailand working under ‘the Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM)’. Now, PATH provide health information guidelines for students at grades 7 to 12 focusing on dimensions of health development, personal skills and sexual behaviours (www.teenpath.net), aimed to encourage all secondary schools providing sex education to pupils. However, no evaluation of the effectiveness of this guideline has been undertaken yet. A lack of clear policy commitment between the Ministry of Education and schools has resulted in only 21 out of 76 provinces in Thailand providing comprehensive sex education as pilot projects. The training of teachers to undertake this role has not been well addressed (PATH, 2007).

Therefore, it is necessary to develop a clear sex education policy that sex education should become a separate subject in the Thai school curriculum, provided by health personnel or by teachers who have undergone specific training themselves. Moreover, sex education policy should include parents as a basic instructor of sex education to their children. This of course would require training and education of parents as well as teachers.

Findings from this study related to sex and sex education in Thai families have been recently published in peer review journals and one of the planning officers at the Population and Community Development Association, Thailand (PDA) requested articles and invited me to discuss my research findings with the planning officers. I will take the opportunity to present the study findings and recommendations in the hope of being able to have direct input into planning public health policy that will directly influence practice.

The findings from this study indicated that parents needed to be prepared and provided with the knowledge of sex education appropriate to their situation, to raise their ability to teach before they convey information to their children. However, parents have not been targeted in Thai sex education policy. Therefore, it is necessary for Ministry of Public Health and Ministry of Education, Thailand to work together providing a clear message of the requirements, instructions or programmes for raising awareness and knowledge among parents. Furthermore, helping parents to recognise their responsibility in provision of sex education to their children should be addressed at national, provincial, and local levels.

8.4.2 Developing family relationship

Good relationships between parents and adolescents are demonstrated through communication styles, which are considered open, friendly, and comfortable. In families with open communication on sexual issues, teenagers perceive themselves more responsible in sexual behaviours (Kirana *et al.*, 2007). Good parent-child relationships are likely to reinforce the effective parental communication (Henrich *et al.*, 2006). The findings in this study demonstrated that the parents and teenagers had different views on sexual issues. Developing a

policy, which provides guidance for health and education practitioners at community and provincial levels to promote good relationships in families should be appropriately funded.

Health professionals should promote open communication within family as a way to emphasise strong family relationships (WHO, 2007b). Therefore, parenting classes should be focused so that all parents should have the chance to attend the services that prepare them for improving their communication skills to promote good relationships in families. Health professionals may offer further extra help for those parents who have problematic relationships with their teenagers.

8.4.3 Encouraging reproductive rights for young people

The evidence from case studies in 20 developing countries, reported by WHO indicated that the implementation of safe sex practices tended to be erratic, and there was widespread misinformation regarding the risks of unsafe sex (Brown *et al.*, 2001). The finding in this study also demonstrated that cultural norms weigh heavily on female teenagers' ability to negotiate safe sex. Therefore, the advocacy and training concerning empowerment of women, and gender equality should be specifically addressed in educational policies and strategies, aimed to encourage young women to be knowledgeable about their reproductive rights. Sex education policy should refer specifically to gender roles and seek to change attitudes to cultural beliefs and practices that could establish unequal power between the genders.

Family planning programmes in Thailand have been successful in reducing fertility only for married women but services for unmarried women have been neglected. A lack of reproductive health care services for young people means they are less likely to be able to

access proper information and professional health care services (UNFPA, 2005). Therefore, the national health policy should address the rights of all young people especially girls to access health care services, focusing especially on reproductive health to reduce the incidence of unwanted pregnancies and STIs.

The problem of abortion includes its illegal status and the way in which national government and local authorities have largely ignored the widespread practice of illegal abortion. The wide spread incidence of illegal abortions in just one community in Bangkok suburbs was illustrated in the Thai public media late last year (2010)

(<http://www.nationmultimedia.com/2010/11/18/national/Crackdown-ordered-30142509.html>).

More than 2000 dead foetuses were found at a Buddhist temple in Bangkok, Thailand that appeared to have come from illegal abortion clinics. After government discussions, the Prime minister said that his government would not revise the abortion-related laws because the existing laws are appropriate and flexible enough. Abortion is still illegal in Thailand except under three conditions: if a woman is raped, if the pregnancy affects her health or if the foetus is abnormal (<http://www.cbc.ca/world/story/2010/11/19/thai-abortion-bangkok.html>).

The Thai legal system needs to protect young women. While abortion is clearly illegal it appears that little is done to protect women from the illegal practitioners, which may indicate that there is no one who advocates for the rights of women on this issue. This issue has been raised by the discovery of foetuses in a temple. It is hoped that this will raise further and wider debate about the health risks for young women if there is not a clear policy on sexual health services with access for all.

8.5 Recommendations for Practice

The findings of this study can serve as baseline information for promoting family skills in sex education practices. There are various strategies, outlined below that professionals working with rural Thai parents and teenagers could use to assist parents to breakdown their barriers in dealing with the issues and improve their communication about sex and sexuality with their children.

8.5.1 Empowering parental knowledge and skills

Promoting sex education in the context of society and family has been emphasised in the Thai health policy which aims to raise public awareness and to foster positive values in society about teaching sexuality to young people (UNFPA, 2005). However, supportive projects for Thai parents in provision of sex education to their children have not been practically implemented. This implementation would, however, need to provide relevant knowledge suitable for parents who had not been provided with educational opportunities in the past, perhaps using audiovisual media materials or mentoring person-to person materials.

Consideration needs to be given to whether informal forms of communication could be altered so knowledge could be delivered in a way that is easier to understand than printed or written materials. Educational interventions empowering parents to address this issue with their children would require a concomitant research study to investigate its effectiveness.

Ways of encouraging parents and teachers to work together and support each other to improve parental roles as educators are also needed. In addition, health care professionals could help parents to identify an appropriate programme for improving their roles as educators that are

compatible with their personal and cultural norms. Regular meetings could be held to follow up on evaluation of progress.

Providing appropriate communication skills for parents to talk effectively are also needed when they are ready to do so. These strategies should aim to increase parents' comfort in discussing sex and in turn empower them to fulfil the role by boosting their confidence to provide needed sex education to their teenage children. As a result, parents could understand the changes during the adolescent period and they could provide guidance and support for their children to avoid sexual risk behaviours.

Specifically, health professionals are likely to encounter parents who are busy with work schedules trying to make a living. Very often, these parents could not find the time and suitable places to talk about sex with their children. Parents need to be shown the value of talking frankly with their children and should be encouraged to see it as a parental duty that will help protect their children. Health professionals can help parents develop skills in talking about sex-related issues with their children in an appropriate stage of the child's development such before their teenagers start dating.

8.5.2 Establishing a connection and respect for individuality between parents and teenagers

This rural society values seniority as the core position of power in relationships in the family structure. Families continuously affirm the traditional wisdom that children should be respectful and obedient towards their senior adults. Most Thai parents in this study showed their authority over their teenagers and they avoided listening to their teenagers' opinions or showed little respect for their ideas in sex-related issues. Perhaps, the process of identity

formation of teenagers might have tensions and conflicts due to the fact that they are traditionally expected to ideally emulate their elders, yet they are struggling to shape their own identities influenced by outside values.

Parents should be able to create dialogue, facilitate an open and receptive interactive environment in which a variety of sexual topics could be discussed with their children securely founded in a good basis for mutual understanding of each other. As a result, the connection and respect for individuality between parents and teenagers would be created.

The girls in this study acknowledged a double standard in expectations for girls and boys, not only on the part of parents, but also of their peers. Strategies which aim to encourage gender equality should be addressed such as encouraging female students to share and discuss gender equality issues in the classroom and teachers could give suggestions of their views in positive ways. Perhaps, it is the first step to promote the empowerment of female teenagers.

8.5.3 Providing reproductive health care services for teenagers

Lack of knowledge about contraception, and a lack of negotiating skills and power to protect themselves might lead female teenagers to be at risk of unplanned pregnancy and abortion (UNFPA, 2005). There is a lack of readily available data on contraceptive behaviours and abortion among unmarried adolescents in Asian countries (Pachauri & Santhya, 2003).

Therefore, equipping adolescents to make informed choices, changing attitudes and strengthening skills, such as the ability to negotiate with peers, partners and family members (Bott & Jejeebhoy, 2003) is an important area to develop. The Ministry of Public Health should adjust and optimise the public health campaigns, which are designed to reach out to

teenagers, focusing on reproductive health services for teenagers at national, provincial and local levels. In particular, the need of appropriate information focusing on sexual relationships and contraception should be designed to help them make wise decisions and there should be establishment of easily accessible health care services for Thai teenagers.

Young people are clearly not aware of the consequences of abortion practices as they regard them as a first line of the management in unplanned pregnancy. Therefore, counselling services should be made available widely to enable young women to consider other options to reduce the health consequences associated with illegal abortion. In addition, for those who have acquired an abortion, they should have opportunities to access services and counselling to manage the negative sequelae of induced pregnancy terminations. It is not only teenagers who need to be targeted for advice and guidance, but also their parents who could help children with making choices.

Programmes, which address working together by including parents, teachers, and health professionals, are needed to ensure that teenagers are furnished with the knowledge and skills to manage relationships effectively. If they can be supported to make effective decisions they may be less likely to become engaged in risky sexual practices. Health care services need to be more welcoming and accessible to female teenagers. It is important to build positive attitudes and skills for health professionals to build rapport with young people, especially female teenagers. While the need to provide accessible and friendly services for teenagers is generally acknowledged, there is no clear understanding on how to make them 'youth friendly' (Bott & Jejeebhoy, 2003).

8.5.4 Providing media campaigns as information resources on sex-related issues

The absence of parental guidance on sexual issues might lead teenagers to try to find out information related to sexual issues from their friends and from the Internet. It is also hard to control children's curiosity about accessing information from media such as the Internet. The Internet however provides almost unlimited access to sometimes unsuitable and even pornographic material. Teenagers may access inaccurate information on sex-related topics as much of the media and the opinions from their friends might be inaccurate. However, in families which have built good interpersonal relationships with the ability to discuss sexual issues, the strengths of relationships with parents could help close the gaps in information needed and could encourage teenagers to ask questions about relationships and discuss any pressures of their lives with their parents. As a result, teenagers would seek out information and support from their parents rather than turning elsewhere for sources of information and they would improve their awareness and skills to access reliable information with parental suggestions. In addition, media campaigns should provide clear and consistent messages about sexual issues that could affect positively on teenagers' knowledge, attitudes, and behaviours on sexuality.

8.6 Recommendations for Education

At present, the nursing curriculum places more emphasis on health promotion than in the past, due to the progressive government health policy; the implications of the study would be useful for education in the field of sexual and reproductive health. I as a nursing educator can apply knowledge gained from the findings in the teaching of nursing students. The topics should be focused on reproductive health for teenagers; dealing with the issue of premarital sex;

appropriate sex education needs for teenagers; and emphasising the parental roles as educators on sex-related subjects that should integrate and connect the ideals of traditionally accepted Thai culture in dealing with the subject matters such as premarital sex and sex education. Moreover, nursing educators can utilise the findings to enhance clinical practices by creating a clear model of the nurses' roles in the family and school settings for promoting health for teenagers.

8.7 Recommendations for future research

This study focused only on parents and teenagers in three rural villages in northeast, Thailand which limited the scope of the study. Therefore, more studies in other rural regions and across a wider social spectrum are still needed to generalise a whole picture of parental involvement in sex education in Thailand and develop suitable strategies for effective sex education by parents.

The study was a cross-sectional approach. The results indicated a number of limitations of parent-child communication about sex. However, the communication process of sensitive subjects involves complex dynamics, varied in terms of source of communication, the message, the channel through which the message is transmitted, the audience of the communication, and the context in which the communication occurs (Jaccard *et al.*, 2002, page). Therefore, these variables should be addressed in future research.

The findings in this study showed that parents avoided discussing sex with their children because of fear that discussions might encourage adolescents to experiment in sex. A number

of studies have addressed this issue however; the links between parent-adolescent communication and sexual risk behaviours have shown mixed results. Research on the issue of the occasionally observed positive association between parent-child communication and sexual risk behaviour is lacking and the underlying issues need to be explored in greater depth.

Most studies on the relationship between these variables have been characterised by simple cross-sectional correlation designs. Studies using longitudinal designs with multiple measures are needed to focus on how parent-child communications regarding sex-related issues predict attitudes and behaviours over time.

The findings on parental barriers to communication about sex have been informative and challenging. Therefore, intervention research aimed to enhance parental ability in talking about sexual matters with their children and to assist parents in respecting the individuality of teenagers is needed.

8.8 Key recommendations

Based on the findings of this study, the key recommended for policy makers are followings:

- Providing media campaigns for provision of information on sex-related issues to young people
- Providing a research focusing on the context of parent-child communication about sex
- Training staff who are equipped to provide sex education to young people specifically

Recommended for health professionals:

- Raising parental awareness in relation to their roles in educating their children about sex
- Targeting young people especially girls within reproductive health services by providing accurate information and accessible services for all young people
- Empowering young women to make choices in contraception and helping them to exercise control over their fertility
- Providing easy access to reproductive health services and providing appropriate approaches to counselling young people who had sexual health problems by improving positive attitudes for health care workers who serve with young people.

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APPENDICES

Appendices	Topics
Appendix A	Ethical approvals and the permission documents
Appendix B	Summarising the main outcomes of studies in parental communication about sex
Appendix C	Information sheets and consent forms C1: Participant Information sheet for the adolescents C2: Participant Information sheet for the parents C3: Consent form for the adolescents C4: Consent form for the parents C5: Parents give consent before their adolescents will be recruited of a research
Appendix D	Schedule for data collection
Appendix E	Instruments of the study E1: The Questionnaire survey for the adolescents E2: The Questionnaire survey for the parents E3: The Semi structured interviews for the adolescents E4: The Semi structured interviews for the parents E5: Reliability of questionnaire surveys of the parents and the adolescents
Appendix F	Normal distribution tests
Appendix G	Coding G1: Coding process G2: Coding examples
Appendix H	Themes, and subthemes generated from parents and teenagers

Appendix A: Ethical approval, UEA

Institute of Health
Finance and Research Offices

Mrs Chaweewan Sridawruang
School of Nursing and Midwifery
Edith Cavell Building
UEA

29 May 2008

Dear Chaweewan

An exploration of the attitudes of Thai adolescents and parents towards parental involvement in sex education - 2008012

Thank you for your recent resubmission of the above application which was passed to the Chair of the FOH Research Ethics Committee for consideration.

The proposal was approved and the committee wish you luck with your research.

Please send the Committee a report at the end of your project.

Yours sincerely



Debbie Graver
Notetaker
Faculty of Health Ethics Committee
Tel: 01603 591023
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Appendix A: Ethical approval, Thailand



No ud 0027.002/ 3886

Udon-Thani Provincial
Public Health Office
4 Atibadee Road, Amphur Muang
Udon-Thani, Thailand 41000

26 June 2008

Reference Chaweewan Sridawruang

To Whom it may concern (Faculty of Health, UEA)

Re: An exploration of the attitudes of Thai adolescents and parents towards parental
involvement in sex education – 2008012

Mrs. Chaweewan Sridawruang, a post-graduate research student at the Nursing and Midwifery Research Unit at the University of East Anglia, UK has sent her research proposal and other documents to the Provincial Public Health Office, Udon-Thani, Thailand.

The research proposal was approved by our committee. Mrs. Chaweewan Sridawruang has been given permission to collect data in 3 rural areas (3 villages) in Udon-Thani province, Thailand from October 2008.

Yours Faithfully

A handwritten signature in black ink, appearing to read 'Sanchai Piyapongkul'.

(Dr. Sanchai Piyapongkul)

Chief of Udon-Thani Provincial Public Health Office, Udon-Thani, Thailand

Satratagic Planning Department

Telephone 0-4223-0536

Requester's Identification

Requester's name Mrs Chaweewan Sridawruang, PhD student
Address School of Nursing and Midwifery, Faculty of Health
University of East Anglia, England

Information to be modified or used to collect data


Title of instruments:

1. Questionnaire surveys for adolescents and parents in 'smart boys and sweet girls, sex education needs in Thai teenagers' will be used to collect data in Thai rural families.
2. The vignette for focus groups will be modified to take into account the different, i.e. rural, context with both parents and adolescents. Furthermore, 'negative' outcomes caused from unprotected intercourse, as well as a request to explore how to resolve the problems of unintended pregnancy and the barriers that prevent parents from providing sex education will be included.

Chaweewan Sridawruang
7 November 2007

Authorised Permission

I'm Vuttanont, I allow Mrs Chaweewan Sridawruang to use, or modify my questionnaire surveys and the vignette, displayed in the paper of 'smart boys and sweet girls' in her thesis.

Signature.....
(Vuttanont, U.)

19 November 2007

Appendix B: Summarising the main outcomes of studies in parental communication about sex

Authors/ Year/ place	Aims	Methodology	Instruments	Participants	Communication focused	Sexual risk behaviours focused	Finding	Limitation/ suggestion
Akinwale, O. et al. 2009 Nigeria	To contribute the promotion of positive communication between parents and children.	Survey	Questionnaires: the 9 sex related issues that parents discussed with their children	96 parents	Content and attitudes of parents towards sex education	-	Most parents often discussed in general topics but only a few often talked about contraception, puberty or AIDS	The quality of the instrument should be clarified.
Aspy, et al. 2007 USA	To clarify the role of communication between parents and teens and sexual risk behaviours of teens	Survey	The five family communication questions; five family communication questions related to sexual behaviours; and the three questions about sexuality education	1083 teens, 13 to 17 years old	Frequency of communication with parents in general topics; sexual related topics; and sexuality education topics.	Four items of child's sexual behaviours: right and wrong in sexual behaviours; delaying sexual activity; birth control; and preventing STDs.	Greater family communication about sex related to delaying sexual debut. Communication about STDs and birth control related to sexual intercourse of teens.	Limitations of validity of self-reported measured. Further study needed to focus on causal relationships between family communication and adolescent sexual behaviours.
Atienzo, E. et al. 2009 Mexico	To describe communication about sexuality between parents and adolescents	Survey	Questionnaires: 3 domains of sexuality; 12 topics, and timing of communication	5592 adolescents less than 20 years, secondary schools	Frequency and timing	-	- 68% of sexually participants had the first discussions with parents before having sexual initiation	The variable related to timing of discussion does not specify the content of discussion. The study focused only adolescents.
Baumeister, L.M., et al. 1995 USA	To identify the amount of parental information about sexual topics given to two groups of female Latina adolescents	Survey: Interviews by phones	The closed format questionnaire included the amount of parental communication about sex in five questions	Two groups of Latina adolescents aged 13-19 years: 40 never pregnant, and 43 pregnant or parenting	The amount of information about sex receiving from parents in 4 topics: sexuality; sexual intercourse; sexuality transmitted diseases; body parts related to sex and birth control	Sexual initiation and Pregnancy	-Adolescents who have perceived that their parents gave information about sexuality were less likely to be pregnant and helped them to delay sexual initiation.	The sample size was small. The study did not represent to abortion adolescents. The study did not cover parents' attitude toward adolescent sexual activity.
Beckett, .M. et al. 2010 USA	To examine timing of parent-child discussions about sex	Survey: Longitudinal survey	Questionnaire	Pairs: 141 parents and teens (13-17 years)	Timing of parent-child communication about sex	Genital touching	More than one third of parents reported that they had not yet discussed 14 of 24 topics with their children about sex before genital touching was occurred.	The sample is small and not representative to general population.
Bersamin, M., et al. 2008. USA	To investigate the effect of parent- child communication and adolescent sexual behaviours	A longitudinal survey	two separate scales of quality of communication	887 teens: 12- 16 years of age (White)	Quality of communication about sex with parents	Oral and vaginal sexual initiation	Quality of communication about sex was significant predictors of onset of oral sex.	Limitation of generalisation and self-report data on adolescents' perceived to parents' behaviours.

Authors/ Year/ place	Aims	Methodology	Instruments	Participants	Communication focused	Sexual risk behaviours focused	Finding	Limitation/ suggestion
Casper, 1990 USA	To examine the effectiveness of family interaction in preventing adolescent pregnancy	Survey	The instruments included the questions about initiation of sexual activity, contraception, choice of pregnant, and well-being of the pregnant adolescents	1,888 of 15 to 19 years old	Family interaction: parent-child communication	Adolescent sexual activity: sexual initiation; birth control	Parent-child communication was significantly related to contraceptive use.	Family interaction is influenced in reducing adolescent pregnancy. Future research should include the direct instrument of variables.
Chung, P. J., <i>et al.</i> 2007 USA	To examine the association between parent- child communication and acculturation	Community based Participatory Research (CBPR)	Frequency scale of parent- adolescent discussion about sexual issues	120 pairs of Filipino- American (adolescents; grade 9- 12)	Frequency of parent- child communication of sex- related issues.	Healthy sexual development	Parents reported higher frequency of discussing sex than adolescents 313ommunica.	Parent knowledge was associated with frequent parent- adolescent communication in positive way. Intervention may need to focus on pre-adolescent families.
Clawson, C. L., and Reese- Weber, M. 2003 USA	To examine the relationship between amount and timing of parent-child communication about sex and sexual risk behaviours of teens	Survey	Amount and timing of parent-adolescent sexual communication instruments: 9 items (pregnancy, fertilisation, intercourse, menstruation, STDs, birth control, abortion, prostitution, and homosexuality)	214 late teens (18 to 21 years old)	Amount and timing of parent-adolescent communication about sex	Sexual initiation, birth control, sexual partners	Parent-adolescent communication about sex was significantly associated with younger age of sexual initiation, numbers of sexual partners. Mother communicated about sex with their teens associated with more methods of contraception used.	This study displayed contrasting results with many studies that teens who had higher communicated about sex with parents were more likely to have first sexual intercourse at younger age. Limitations were lack of diversity groups of teens, lack of attitudes of parents and teens about communication issues.
Cox, F et al. 2010 USA	To understand mother-child communication about sex	Focus groups	The key questions of the focus groups were five components of communication about sex	3 groups of 6 to 8 parents	Content Extent (frequency and depth of communication) Style Timing context	-	Mothers were often uncomfortable discussing sex with male teenagers. Mothers felt strongly that their own values and belief must guide discussion	Parents need assistance achieving a high level of comfort when talking sex with their children

Authors/ Year/ place	Aims	Methodology	Instruments	Participants	Communication focused	Sexual risk behaviours focused	Finding	Limitation/ suggestion
Dilorio, C., et al. 1999 USA	To identify the content, characteristics, and comfort level of discussions about sexuality and sexual risk behaviours of teens	Survey: Interviews	14 self-related topics about sex-based topics; 3 questions of comfort in discussing sex with mothers; 4 items of sexual attitudes; and 1 item of sexual intercourse.	405 of 13-15 years old, and 382 mothers	Content and comfort	Sexual values and sexual initiation	Male teens reported discussed about sex-based topics with mothers, fathers, and friends less than female teens did. Greater discussion about sex related to less likely to have sexual initiation.	Limitation of generalisation: focused only low socio economic area. Future research should be addressed how to encourage mothers discussed about sex with their teens.
Dilorio, C., et al. 2000 USA	To examine the relation between self-efficacy and outcome expectancies and mother-adolescent communication about sex	Survey	Sex-based communication of 20 item scale.	486 mothers of 11 to 14 year old	Whether or not they had ever discussed the topic with their adolescent	-	Mothers tended to talk more with daughters and increased discussion with the age of teens.	The programs develop skills for parents talking sex with their teens should be created.
Dutra, R., et al. 1999 USA	To examine process and content of sexual discussions in two-parent families	Survey	The instruments were developed from 30 focus groups	907 black and Hispanic teens, 14-16 years of age and their mothers (332 adolescents whom parents live together)	Process and content of sexual discussion	Adolescent risk-taking behaviours	Mothers more discussed about sexual related issues than fathers did. Process and content of sexual communication were significantly and positively correlated	The instruments were established from focus groups that were not tested-retested of validity before using in the current study.
Eisenberg, M. E., et al. 2006 USA	To explore the prevalence of parent-teen communication about sex and to examine associations between this type of communication and parents' perceptions of teens' involvement in romantic relationship	Survey: Telephone survey	The perceptions of parents toward teen's romantic involvement and parent-child communication about sex	1069 parents	Frequency of parent-child communication about six sex related issues.	Teens' involvement in romantic relationship	Parents were most likely to talk a great deal about the consequences of pregnancy and the dangers of STDs	Parents who perceived that their teens had been involved in romantic relationship were more likely talked about sex related issues than parents who did not believe their teens had been romantically involved.
Epstein, M and Ward, L. M. 2008 USA	To explore the amount and content of sex-related communication boys –received from parents, peers, and the media	Mixed-method s research	The measurments of topics communicated, themes and values communicated, and open-ended questions about specific sexual themes and values communicated	286 male undergraduate students	Amount, content , sources of sex-related communication	-	-Parents were lower in prominence than communications from peers and the media. - Peers and media provided sex-related information met the need of teens rather than parents in contents.	Limitations of narrow selection of only three sources, and sample homogeneity

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Feldman, S. S., and Rosenthal, D. A. 2000 Australia	To explore parent-child communication about sex	Survey	The frequency and quality of sex-related communication instruments.	209 of tenth grade students (16 years old) 156 mothers 91 fathers	General and sex- related communications in frequency and quality of 315communication	-	Female teens perceived that mothers were more frequent communication about sex-related issues than fathers. Whereas, male teens evaluated mothers and fathers no difference.	The effective communication about sex and sex- related issues is influenced by good general communication style.
Gallegos, et al. 2007 Mexico	To describe parent-adolescent communication about sex	Survey	Communication scales	829 adolescent (458 girls, 371 boys) and one of their parents	General communication; communication on sexual topics; and comfort when talking sex	-	Parents perceived had more comfortable discussing sex with their teens compared to teens. Adolescents perceived their parents discussed about sex with them more than did parents.	Limitations of generalisation and participants were not randomised. Higher education levels of parents were not displayed higher communication about sex with their teens.
Guilamo-Ramos., Dittus, et al. 2006a USA	To explore content and process of mother-adolescent communication about sex in Latino families	Focus groups	Set of questionnaires	63 Latino mother-adolescent pairs	Content and process of communication	-	Latino mothers were discussed about the consequences of sexual activity with their teens but not focusing on the topics of sexual intercourse and birth control	Teens want to discussed about sex with mothers but rarely happens because of for fear their mothers would assume they were sexually active. Latino families were not support open discussion about sex in family.
Guilamo-Ramos., Jaccard, et al. 2006b USA	To test the relationship between the dimensions of expertise, trustworthiness, accessibility and risk behaviours of adolescents	Survey	Measures of communication: how much teens had talked with their mothers	668 teens at 6,7, and 8 grades and their mothers	Frequency of communication in three domains: Physical and health risks, social consequences of engaging in sexual intercourse, and moral consequences of engaging in sexual intercourse	Adolescent risk behaviours: engaging in sexual intercourse	Frequency of parental communication about sex low correlated with engaging sexual intercourse	Limitations of generalisation to fathers groups and minimise the number of questions about actual behaviour.
Guilamo-Ramos., Jaccard, et al. 2007 USA	To examine maternal communication about the expectancies of engaging in sexual intercourse	Survey	Measures of communication: 21 topics were assessed	668 middle school students and mothers	Expectancies of engaging in sexual intercourse	-	Boys reported lower levels of maternal communication than did girls. Mothers reported a greater frequency of conversations than do adolescents.	The frequency of maternal discussions about an expectancy were unrelated to child beliefs. Mothers need to be taught more effectively, and make impact.

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Guzman, B. L., et al. 2003 USA	To examine the relationship between extent and frequency of sexual communication and sexual risk behaviours of teens	Survey	The measurement of extent, frequency, and comfort of sexual communication with parents; the measurement of sexual activity, intended sexual behaviour, and intended and actual condom use	1039 Latino adolescents, 8 th and 9 th grades	Frequency and comfort of parent-child communication about sex	Intended sexual behaviours and Intended and actual condom use	47% of teens rarely or never discussed about sex with mothers, and 68.6% had never discussed sex with fathers. Comfortable discussing sex with parents was significant positive predictor of not being sexually active	'sex' was left undefined meaning of heterosexual or homosexual acts.
Hovell, et al. 1994 USA	To explore the relationship between family variables and sexual behaviours of teens	Survey	Measures of parent communication: three items of times family had communicated about sex, and five items about communication about sex with mothers	224 Latino and 160 Anglo teens	Times the family had communicated about sex with teens and communication about sex with mothers	Sexual activity history, included vaginal, oral and anal intercourse.	Sexual behaviour was regressed on family variables.	Limitations of representativeness. The future research is needed in order to identify the limits of the family influences.
Huebner, A. J., and Howell, L. W. 2003 USA	To examine the relationship between sexual risk- taking and frequency of parent-adolescent communication	Survey	The frequency of parent- child general and sex- related communication instruments	1160 students, 7 th -12 th grades In 6 rural areas (Diverse groups)	Frequency of parent-adolescent communication in general and sex- related issues	Numbers of partners Condom used	Parent- child communication demonstrated no direct relationship with sexual- risk taking	Limitation of measurement included a wider variety of topics. It could be not focussed enough sex- specific questions.
Hutchinson and Cooney. 1998 USA	To examine the relationship between parent-teen communication about sex and sexual attitudes and behaviours of teens	Survey: telephone interviews	The instruments of parent-teen sexual communication (12 sexual topics with 5 rating scales), comfort discussing sex with parents (4 rating scales), and 30 items of condom self-efficacy in 5 ranging scales	173 young women 19 and 20 years old	Patterns of parent-teen sexual communication: rates comfort and desire	Condom use self-efficacy, asked partner about STDs	Two third of young women discussed about sex with mothers, whereas one third of them discussed about sex with their fathers. Parent-teen sexual communication associated with condom self-efficacy.	Limitations of findings only focused on young women.
Hutchinson, M. K. 1999 USA		Survey: telephone interviews	The instrument of parent-teen sexual risk communication (PTSRC)	Two subsamples: 66 women: 20-26 years and 27 women: 17-22 years old	How much parents communicated about sex with their teens	Numbers of past partners, frequency of condom use, ever tested for HIV	Higher communication about sex with parents associated with increasing contraceptive use, and believed their partners no risks increased.	Women in this study reported their partners' risks under their perceptions and lack of accurate information to confirm their perceived.

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Hutchinson, M. K. 2002 USA	To compare the amount and timing of parent- adolescent sexual risk communication in diverse groups	Survey : telephone interviews	Parent- adolescent general and sexual risk communication instrument	234 women of 19 to 21 years of age (40% White)	Amount and timing of parent- adolescent general and sex- related sexual risk communication.	Aged at first episode of sexual intercourse, STD, and consistent condom use	Communication with mothers was significantly associated with consistent condom use, and delaying sexual debut. Hispanic-Latina respondents reported less parent-adolescent sexual communication than others.	Limitation of generalisation to the entire population
Hutchinson, M.K., <i>et al.</i> 2003 USA	To examine the relationship between mother- daughter communication about sex and sexual risk behaviours	Survey	Mother- daughter sexual risk communication instrument	219 sexually experienced females, 12 to 19 years of age Inner city females	Communication has ever occurred on sexual risk-related topics	Risk for STIs, HIV; Number of male sexual partners; number of days of sexual intercourse without a condom	Higher levels of mother-daughter sexual risk communication were associated with sexual risk at 3 month follow- up.	Limitations of generalization , and communication instrument should be more sensitive measured by using likert scale rather than yes/ no items.
Hyde, A. et al. 2009 UK	To explore parents' approaches to communicating with their preadolescents and adolescents.	In-depth interview	-The interview guide: whether discussing sex; contraceptions; boyfriend-girlfriend relationship; influences on children relationships.	39 parents	Attitudes	-	Findings were presented around four main themes: patterns of parental approaches to relationships and sexuality education; social processes, practices and attitudes; the content and substance; and parental sexuality education and gendering	The study focused only parents. The perspectives of teenagers are also needed.
Jaccard, J., <i>et al.</i> 1996 USA	To explore maternal disapproval of premarital sexual intercourse is associated with the sexual activity and contraceptive behaviours	Survey	Three statements assessed parent-child discussions about birth control.	751 black adolescents aged 14-17 years, and mothers or female caretakers	Discussion about birth control	- Whether teens had ever had sexual intercourse - Consistency of contraception use	- The adolescent's satisfaction with mother-child relationship, perceptions of maternal orientation toward premarital sex and report of maternal discussions about birth control were all significant predictors of adolescent sexual activity.	- Adolescents who reported satisfied with their mothers may be more likely to pay attention and accept to discuss about sexual related issues with their parents. Many parents needed knowledge on sexual matters before talking with their teens

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Jaccard, J., et al. 1998 USA	To investigate the issue of parent-child congruence of sexual variables and sexual behaviours of teens	Survey	Global communication about sex and communication about specific topics instruments	745 African American, never married, 14 to 17 years old	Frequency of talking sex between parents and teens in the topics of global communication about sex and communication about specific topics	Three sexual behaviours were interested: whether the teen had engaged in sexual intercourse; number of times engaging in sexual intercourse; and consistency of using birth control.	Mothers (72%) perceived that they discussed about sex with their teens more than teens (45.4%) perceived. Teens who perceived maternal disapproval of premarital sex are associated with lowered levels of sexual activity.	Mothers tended to underestimate sexual risk behaviours of teens than teens reported.
Jaccard, J. <i>et al.</i> 2003 USA	To identify maternal discussions about pregnancy toward adolescents attitudes of pregnancy	Survey	The instrument of frequency of talking about pregnancy-related issues with mothers	350 inner- city, African-American females, 14 to 17 years of age	Frequency mother-adolescent communication about pregnancy related issues	Pregnancy attitudes	Higher levels of discussion were significantly correlated with more negative attitudes towards pregnancy of adolescents	Limitation of research design: self- reported.
Kakavoulis, A. 2001 Greece	To survey the parents, teachers, and students attitude on the role of families on sexual related issues	Survey	The questions about parents' attitudes on sex education in several topics	372 parents 284 nursery school teachers 314 secondary school teachers 436 University students 232 pupils aged 17-18 years	Parental attitudes to several issues of sex education: concern and influences for sexual development; the aims of sex education; who can provide sexual topics; and the most serious problems in sex education	-	Most participants believed that families did not have adequate sources to provide an appropriate sex education. Parents believed that sex education should start early at pre-school years.	Parents believed that sex education is not easy task and parents should have positive characteristics and good training before discussion on sexual related issues.
Kapungu, C. et al. 2010 USA	To examine gender differences in communication about sex-related topics	Longitudinal study	Questionnaire based measures:: 17 questions related to discussions about sex related topics	162 mother-adolescent dyads	Content	-	Mothers not only communicated more frequently about sexual issues with their daughters than sons but the parental message for girls were more protective.	The limitations of generalisation and the data were self report. Qualitative research is needed to examine the process and content of communication.
Karofsky, P. S., <i>et al.</i> 2000 USA	To examine the level of communication between parents and adolescents correlate with timing of sexual debut	Longitudinal study	The level of communication between parent and child instrument	203 teenage patients, 12- 21 years of aged (White)	Level of communication between parent and child addressed all types of communication	Initiation of sexual intercourse	Adolescent- parent communication about sex was positively associated with abstinent sex.	- Sexual experience may be underreported by females and overreported by males. - Limitation of generalisation.

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Kirana, P. S., et al. 2007 Greece	To explore the attitudes of Greek parents about concerning the provision of sex education	Survey	The questionnaire survey of concerning of parents about sex education	93 parents	- Importance of sex education - Whether parents discuss sexual issues with their children - Topics are most important for sex education - Concerning of sex education - Resources of sex education	-	66% of parents reported that sex education is absolutely useful, 52% of parents reported that they have talked about sex with their children. 40% of parents used internet, health magazines, and seminars as resources for sex education.	Future researches should be focused on the topics of frequency, content, and types of parent-child communication.
Lefkowitz, E. S., et al. 2000 USA	To examine how mothers and teens discuss about sex and AIDS after trainings	Intervention: communication training for mothers	Content of conversations was measured with global self-report, daily self-report and observational ratings; comfort asked by 7 point scale to rate how comfortable they were talking each other about sex.	40 dyads of mothers and teens, 11 to 15 years old	Content, and comfort of conversations	-	After mothers received training they were more open and less judgment their teens than did control groups, and they had changed amount and style of communication.	The training had improved communication for mothers but not adolescent reports.
Lefkowitz, E. S. et al. 2002 USA	To examine gender differences in mother-adolescent conversations about sexuality	Intervention study	- Self-reported frequency of sex-related conversations - Observational measures	50 mother-adolescent pairs	-Frequency of communication	-	Boys reported less frequent discussed about sex with their mothers, whereas mothers of boys did not reported less frequent discussions. - Girls reported more frequent discussions about sex with their mothers than did boys.	Limitations of research occurred in laboratory-based setting, differed from natural occurrence.
Lefkowitz, E. S., et al. 2003 USA	To examine how much parents discuss about abstinence and safer sex with their teens and the relations between communication about sex and demographic characteristics	Intervention study	- Observational measures	50 mother-adolescent pairs	Frequency of communication and demographic factors	-	Girls were more likely to discuss about abstinence and safer sex with their mothers than boys were. Mothers who had higher education levels discussed about sex with their teens more than parents who had lower educational levels. Income of family was not related to frequency of parent-child communication about sex	Training parents to improve communication skills should be focused on the topics of HIV transmission, and being clear about what topics to cover.

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Lehr, S. T., et al. 2000 USA	To examine the relationship between parent-adolescent communication about sex and sexual risk behaviours of teens	One part of a longitudinal study	Two measurements of the openness of sexual communication scale (OSCS), included 4 items, and the sex-related communication scale (SRCS), included 10 items	732 African American young people, 18 to 25 years old	The openness and amount of parent-adolescent communication about sex	Age at sexual initiation and condom use	Young men reported higher levels communicated about sex with parents than girls, and openness discussion about sex with parents of both sexes at the same levels. Greater communicated about sex with mothers associated with consistent of condom used for young women.	The findings show that fathers is important person for sexual communication with their teens, displayed contrasting findings with most literature reveals.
McNeeLY, C., <i>et al.</i> 2002 USA	To assess the relation between frequency of communication with the parents of the daughter's friends with the onset of sexual debut	A longitudinal survey	The instrument of frequency, and discomfort of discussion about sex and birth control	15243 students of 7 th - 12 th grade (White)	Frequency, content, and context of communication about sex and birth control	Timing of first sexual intercourse	No direct of maternal factors associated with the onset of sexual intercourse for males.	Limitation of short time interval between two waves
Meneses, L. M., et al. 2006 USA	To compare the mother-daughter communication about sex with ethnic differences	Survey	The instruments of discordance index; discomfort; and infrequent communication index	6929 mothers (White/ Black/ Latino/ Asian)	Frequency and comfort of parent-child communication about sex	-	Asian and Latina mothers demonstrated the highest levels of discomfort and infrequent communication about sex.	Intervention aims to enhance family levels to prevent sexual risk behaviours of teenagers are needed.
Miller, K. S., Kotchick, B. A., et al. 1998 a USA	To explore family communication about sex	Survey	Using data from the Family Adolescent Risk Behaviour and Communication Study (FARBCS) in 1993-1994, including 10 questions of whether mothers talked about sex with teens, and 10 questions of process of mother-child sexual communication	907 Hispanic and black aged 14-16 years and parents	Whether of maternal communication about sex in 10 topics, and process of parental communication about sex	-	<ul style="list-style-type: none"> - Most topics that families discussed were HIV or AIDS and STDs, whereas the least discussed were masturbation, physical and sexual development. - Mothers were more likely to discuss about sexual topics with their adolescents than fathers were. 	<ul style="list-style-type: none"> - The study was not been considered the content and process of sexual communication within familial contexts. - A future research should focus on the process and content of sexual communication relate to sexual risk-taking behaviour.

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Miller, K. S., Levin, et al. 1998b USA	To examine the association between the timing of mother-adolescent discussion about condom use and adolescents' condom use during their first and subsequent intercourse	Survey: Interviews	The instrument of timing of discussion about condoms between mothers and teens; and condom use during first intercourse and during most recent intercourse.	372 sexually active adolescents	Timing of discussion about condom use between mothers and teens	Condom use during first intercourse and condom use during most recent intercourse	Discussion about condoms between mothers and teens before the onset of sexual debut were strongly associated with greater condom use during sexual initiation and most recent intercourse.	Condom use at the first sexual intercourse related to later condom use. It implied that providing information about condoms before the first sexual intercourse should be happens.
Miller, K. S., Forehand, R. et al. 1999 USA	To examine family structures, family process variables and maternal attitudes about sexual behaviours of teens	Survey: Interviews	10 questions of general communication (4 rating scales); 4 items of whether mother-adolescent sexual communication (1= no, 2= yes); 9 items of maternal attitudes about adolescent sexual behaviours	982 dyads, mothers and teens (14 to 16 years old)	General and sexual communication between mothers and teens	Adolescent sexual behaviours: frequency of sexual intercourse, numbers of sexual partners, and age of first intercourse.	Family structure variables failed to predict adolescent sexual behaviours because did not emerge as significant predictors of the outcome measures in the regression analysis.	The study focused only adolescents and this cross sectional study was limited conclusions about cause and effect.
Miller, K. S., and Whitaker, D. J. 2001 USA	To examine predictors of mother-adolescent communication about condoms	Survey: Interviews	The measurements of mother's knowledge and information, mothers' attitudes about sex, mothers' perception of her adolescent's risk, and mothers' perceptions of ability to discuss sex and condoms.	907 mothers of teens aged 14 to 17 years old	Sources of sexual information for mothers; mother's perception of ability to discuss sex.	-	73.4% of mothers had talked with their adolescent about condoms. Mothers who considered condoms more effective and approved condoms for adolescents were more likely to have talked with their adolescent about condoms.	Parents may underestimate the adolescent's risk. Physicians should inform parents about the realities of adolescent sexual behaviours.
Miller, K. S. Et al. 2009 USA	To examine factors that promote parent-child discussions about sex topics	Computer-administered survey	One item for each of the three topics about abstinence, puberty, and reproduction	1127 African American parent-child pairs	Comfort	-	A high number of mothers reported talking to their children. Children reported lower communicated about sex with parents than did parents' perceived	The limitations of convenient samples make it difficult for generalisation. Group interventions with parents can help them build the knowledge, comfort, skills, and confidence are also needed.

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Noone and Young 2010 USA	To explore rural mothers' beliefs, experiences, and perceptions of their parenting role in talking with daughters	Open ended question and semi-structure interview	The semi structure interview guide, followed the conceptual framework on parent-child communication.	30 rural mothers	Mothers' experiences and beliefs with regard to discussing contraception; barriers; facilitators to discussing contraception	-	-Characteristics of parents and teenagers were barriers to communication - Appropriate times for discussion about sex should be based on the adolescents' needs.	Lack of diversity of samples. Interventions aimed to help parents communicate about sex with their children should be addressed.
Phetla, et al. 2008 South Africa	To explore what and how parents discuss about sexual topics	Community-based, randomised control trial	Questionnaires about frequency of sexual communication	387 women and 443 young people	Frequency of sexual communication	-	Women who were participate in intervention group were more likely to communicate with their teens rather than women who were not included in intervention group.	Many parents reported discussed about sex with their teens that they need to be trained practical strategies to improve their confidence before conveying sexual information to their children.
Pistella, C. Y. et al. 1999 USA	To explore perspectives of teenagers regarding thir recommendations for better family communication	Survey	Adolescent perceptions of communication with parents about sexual topics: agreement with parents, ease of parents, preferred teen strategies for improved teen parent communication	416 teenagers less than 19 years	Context	-	Teens recommended their needs: parents treated them as an equal, increase parental knowledge about life style and peer pressure, improve parental listening skills.	Suggestions: sexually active adolescent daughters expressed interest in maintaining family connectedness.
Pluhar, E. I., and Kuriloff, P. 2004 USA	To analyse the family communication process	Qualitative research	Interviews, and observational techniques	30 Mother-daughter pairs (African-American)	Communication process	-	Two dimensions of communication process emerged: affective and stylistic	The parent sexuality education programs should be created to promote discussing sex in family
Powell, E. 2008 UK	To explore adolescents views on sexual information and advice that they receive through family and friends	Mixed methods research	- A questionnaire survey - Follow-up focus group interviews	- 401 adolescents aged 12-19 years (questionnaire) - 12 follow-up focus group interviews (n= 57)	How teens used family and friends to acquire sexual information in diverse demographic characteristics	-	- Adolescents were more likely to gain passive sexual information sources than active sources. - Most focus group adolescents stated that friends and peers were most importance of sexual source rather than parents.	- The family roles on sexual information were more eminent in focus group data than the survey.

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Raffaelli, M., et al. 1998 USA	To explore parent- child communication about sex.		Parent Measures: parents beliefs about the child's sexual behaviours and peer sexual behaviour, and birth control attitudes Teen measures: teen sexual behaviour, personal talk, and teen reports of sexual communication	8 th to 12 th grade students with parents: 510 matched father- teen pairs, and 666 matched mother-teen pairs.	Frequency of discussion of three sexual topics	Parents' beliefs about the child's sexual behaviour; birth control attitudes	70% of teens had not discussed about sex with their mothers. Maternal responsiveness was not linked to teens reports of sexual discussions. Maternal worries about sexuality were significantly associated with discussions of dangers of STDs.	A cross sectional study is less inferences about the direction of relations among variables.
Raffaelli, M. and Green, S. 2003 USA	To explore parental communication about sex	Survey	Direct mail	166 young people of both sexes, 25 and under	Number of times of discussing sex in direct and indirect sexual issues	-	Young people of both sexes reported higher discussed about sex with mothers than fathers and women were more likely to talked about sex with mothers than did men.	Topics such as birth control and STDs are less frequently discussed. Limitations of representative of US Latinos and limited in only young people view points.
Rodgers, K. B. 1999 USA	To explore parenting behaviours related to sexual risk-taking behaviour among sexually active adolescents	Survey	Parent-child communication instrument about frequency of parental communication about sex range from 0 (never) to 4 (very often) Measurement of type and consistent of contraception use	350 White ninth- to 12 th - grade students	Frequency of parent- child communication about sex about whether or not for teens to have sex; birth control; risks of HIV/AIDS or STDs	Types and consistency of contraception use	Male adolescents felt they had unsupported when they discussed sexual issues with parents. Parental communication about sexual issues and parental support were not directly related to sexual risk taking.	A future research should examine parental processes in ethnic groups and low-income families.
Rosenthal, D. A., et al. 1998 Australia	To explore style, content and frequency of parental communication about sex	Interviews	Extensive semi- structure interviews	30 mothers of 16 years old	Style, content and frequency of communication	-	Mothers rarely discussed about sex with their teens because they were lacked in ability, and schools take a major role as sexual providers. Five communication styles: avoidant, reactive, opportunistic, child-initiated and mutually interactive.	Suggestion, the research should be undertaken with fathers, and using a variety of different methodologies. Limitations, lacking information about a mother behaves whether she does.

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Rosenthal, D. A., and Feldman, S. S. 1999 Australia	To examine many diverse sexual topics in order to determine whether parental communication about sexuality and explore the relationship between frequency and importance of sexuality	Survey	20 specific topics of frequency of talking sex with their parents	298 of teenagers aged 16 years old	Frequency and importance of sex communications	-	Mothers were reported as more frequent communicators about sexuality than fathers and girls received more communication than boys. Teenagers rated parental communication about sexuality as unimportant.	The young people perceptions may not reflect family reality regarding communication Future research should focus the issue on both parents and teens.
Shoop, D. M. and Davidson, P. M. 1994 USA	To understand the effect of specific communication about AIDS on sexual behaviours of teens	Survey	The instrument of reporting prior discussion of sexual matters and AIDS with parents	40 male and 40 female teens, 15 to 18 years old	Prior discussion of sexual matters with parents	Self-reports of sexual practices	Adolescents who reported discussing sex with parents were more likely to discuss about AIDS related questions with parents.	Experience of discussing sexual matters with others can facilitate responsible communication and sexual practices with sexual partners.
Somers. C. L. and Paulson, S. E. 2000 USA	To explore the relationship between parent- adolescent communication about sex and sexual knowledge, attitudes, and behaviours	Survey	The measurement of communication about sexuality and a measure of adolescent behaviours	157 teens grades 9 to 12	Amount of communication about 20 sexual topics	Concerning sexual behaviours and experience	Maternal communication were more significantly correlated with sexual behaviours in older teens than younger but parental communication did not significantly predict with sexuality of adolescents	Limitation of generalization: small size of samples Measurement of communication lacks the types of sexual behaviours. The study focused only on frequency of risky behaviours.
Trinh, et al. 2009 Vietnam	To examine parent- child communication on sexual topics	Focus groups and in-depth interviews	In-depth interviews and focus groups guides	45 parents and teens of high school age	Content, contexts, and barriers of parental communication about sex	-	Discussion was limited to warning teens from negative consequences of premarital sex. limitations of parental knowledge, and embarrassment made difficulties of communication about sex in families.	Gender played important role of discussing sex. Parents felt embarrassed talking sex with teens of the opposite sex. The research on this topic should be focused with teens who were not attending schools.

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Walker, L. R., <i>et al.</i> 2008 USA	To explore the factors associated with adolescent sexual behaviours	Focus groups	Focus group guidelines	78 males and female African-American caregivers of 10-12 years	Communication openly with their children about the subjects of puberty, relationships, and sex	Sexual debut	Females were more likely to discuss sex with their children than males did. Many parents feel uncomfortable discussing sex with their children. Most parents stated that pre-teens had sexually active because they had inadequate guidance and lack of adult supervision. Other reasons were 'the influence of peers, society, and media' (page 175).	Communication openly about abstinent sex is one of strategies should be focused to encourage adolescents to delay sexual debut. Many factors might be prohibited them discussion on sexual topics such as, working long hours, lacking of school and community support for parental roles.
Walker, J. L. 2001 UK	To explore and identify the factors that influence parents talking about sex with their children	Interviews	Fifty semi-structured interviews	49 mothers, and 21 fathers	How parents talk to their children about sex; key factors that influence parents talking to their children about sex	-	Parents used many skills of providing sex education: open communication, and access to sources of information. Parents' skills, moral, ethical, spiritual, and social backgrounds were inter-related factors to obstruct or promote parent-child communication about sex.	Parents need to be develop communication skills and confidence. Health professionals should training and providing sex education resources to parents. Parents need good communication with schools that involves a partnership in practice.
Wamoyi, J. et al. 2010 Tanzania	To understand communication patterns in families	Ethnographic research - 8 wks of Observation - 17 Focus groups - 46 Indepth-interviews	Authors did not describe the instrument that they had used	Young people 14-24 years and their care givers	Frequency, content and timing of parent-child communication about sex	-	- Parents discussed about sexual issues with their children only the topics of abstinence, HIV/AIDS - Mothers were mainly delivered of sex education - Parents decided discuss sex only if their daughters had sexual experiences	The instruments of this study did not provided. The rigour of the studies did not provided. The suitable of each method that the researchers had used did not clarify.
Wang, et al. 2007 China	To explore out-of-school teens' sexual attitudes and behaviours, pattern of communication on sexual matters	Survey	Two questions of mothers communicated about sex with their teens	1304 out-of-school teens	Pattern of communication	Premarital sexual intercourse	Pattern of communication was significantly associated with premarital sex of teens.	Limitations of generalisation to out-of-school youth in other areas The study did not use a probabilistic sampling method

Authors/ Year/ place	Aims	Methodology	Instruments	Participants	Communication focused	Sexual risk behaviours focused	Finding	Limitation/ suggestion
Whitaker, D. J., and Miller, K. S. 2000 USA	To examine the relationship between parent- adolescent communication about sexual initiation and condoms and peer norms and behaviours	Survey	Parent- adolescent communication instrument and adolescent sexual activity, condom use instrument	907 teens	Initiating sex and condom use communication topics	- Sexual behaviour outcomes - Condom use behaviours	Communication about initiation sex tended to initiate sex later and tended to have fewer partners	The sample is not representative sample. The findings may not generalisable to nonminority populations.
Whitaker, D. J., et al. 1999 USA	To explore what and how parents discuss about sex with their children	Survey: Interviews	The instrument of Sexuality and risk discussions	372 sexually active black and Hispanic teens, 14 to 17 years old.	-Whether teens had discussed about 11 topics related sexual issues with their parents and comfort in discussing sex. - Partner communicate about sex in four topics: birth control; condoms; STDs; and AIDS, and HIV	Condom use	Parent-child communication about sex was associated with increased condom use and increased partner-teen communication about sex even if parents were open, skilled and comfortable in discussions.	Limitations of representativeness and this finding is only self-report from adolescents. The programs that encourage parent-teen communication about sex should be created, focused on both sides parents and teens.
Wilson, E. K. et al. 2010 USA	To explore the factors that influence the parent-child communication about sex	Focus groups	Questions in the guide explored parents' perceptions of sexual risks confronting their children, how to motivation, barriers and facilities of communicating with their children about sex	131 mothers and fathers aged 10-12 years (inner cities)	- Barriers to talking about sex - Time for discussing sex - factors facilitating talking about sex	-	- Parents perceived that their teenagers were access sexual risks from media - Teenagers aged 10-12 years was appropriate age to teach about puberty, biology of reproduction - Barriers for discussing sex: time limitation, children are not ready, uncertainty	The study focused only inner cities in the USA. The development of interventions to help parents discussing sex with their children are needed
Wilson and Koo 2010 USA	To describe how factors associate with parent-child communication about sexual topics differ by gender	Survey	- Eight measures of communication about sex: whether and frequency of communication about sex	829 fathers and 1113 mothers	Frequency Barriers	-	Mothers generally talked with both sons and daughters more than fathers did. Fathers talked with daughters more than with sons about just one topic: dating and relationship.	The study focused only whites and higher levels of education. The study included only parents.

Appendix C: Information sheets and consent forms

Appendix C1: Participant Information Sheet for the Adolescents

Title: An exploration of the attitudes of Thai adolescents and parents towards parental involvement in sex education

Invitation

I would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to listen to [or read] the following information carefully. Talk to others about the study if you wish. I will tell you the purpose of this study and what will happen to you if you take part. You can also ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

This research aims to explore the attitudes of Thai adolescents and parents toward parental involvement in sex education.

Why have I been invited?

A total of 79 Thai adolescents will be participated in survey study; 36 Thai adolescents with the focus group study (six to eight per group) who will be recruited through survey study. Focus groups for adolescents will be participating in separate single sex groups. This will make adolescents feel more comfortable to state their perspectives on sensitive issues; and 11 Thai adolescents with the In-depth Interview study who will be recruited through focus group study. The information that a researcher gets from you will help identify ways of helping Thai parents to provide sex education to their adolescents, and to make recommendations for improvements in the provision of sex education in Thailand.

Do I have to take part?

It is up to you to decide. We will describe the study and go through this information sheet, which we will then give to you. You do not have to decide now, I will be happy to see you again in three days time and answer any questions you might have. We will then ask you to sign (or make your thumbprint on) a consent form to show you have agreed to take part. You are free to withdraw at any time, without giving a reason. This will not affect the care you receive or will receive. If you choose not to take part, you will not be identified in any way.

What will happen to me if I take part?

You will be asked to complete a questionnaire about 60 minutes; 60 minutes to 90 minutes for focus group and In-depth interview at the community centre. What you say will be recorded by tape-recorder, transcribed and translated into English.

Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence; I will be the only person to know your name. For everybody else a false name will be used in the report of the findings so that you cannot be recognized. I will keep what you tell me secure for five years. Then I will destroy the recordings.

Who is organising and funding the research?

This study has been funded by the Royal Thai Government and approved by the district health offices of the Thai Ministry of Public Health, and the local administration offices of the Thai Local Administration Institute.

What are the possible benefits of taking part?

I cannot promise the study will help you but the information I get from this study, and overall results will be used to identify ways of helping Thai parents to provide sex education to their adolescents, and to make recommendations for improvement in the provision of sex education.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to me as the researcher who will do the best to answer your questions

These are a researcher's contact details:

Mrs. Chaweewan Sridawruang
Boromarajonani College of Nursing Udon Thani
88 Moo 1, Tambon Nongpai,
Amphur Muang, Udon Thani Province
Tel No. +66 42-295406 or +66 81 2638989

Appendix C: Information sheets and consent forms
Appendix C2: Participant Information Sheet for the parents

Title: An exploration of the attitudes of Thai adolescents and parents towards parental involvement in sex education

Invitation

I would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to listen to [or read] the following information carefully. Talk to others about the study if you wish. I will tell you the purpose of this study and what will happen to you if you take part. You can also ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

This research aims to explore the attitudes of Thai adolescents and parents toward parental involvement in sex education.

Why have I been invited?

A total of 79 Thai parents will be participated in survey study; 30 Thai parents with the focus group study (six to eight per group) who will be recruited through survey study. Focus groups for parents will be mixed sex; and 11 Thai parents with the In-depth Interview study who will be recruited through focus group study. The information that a researcher gets from you will help identify ways of helping Thai parents to provide sex education to their adolescents, and to make recommendations for improvements in the provision of sex education in Thailand.

Do I have to take part?

It is up to you to decide. We will describe the study and go through this information sheet, which we will then give to you. You do not have to decide now, I will be happy to see you again in three days time and answer any questions you might have. We will then ask you to sign (or make your thumbprint on) a consent form to show you have agreed to take part. You are free to withdraw at any time, without giving a reason. This will not affect the care you receive or will receive. If you choose not to take part, you will not be identified in any way.

What will happen to me if I take part?

You will be asked to complete a questionnaire about 45 minutes at your accommodation; 60 minutes to 90 minutes for focus group and In-depth interview at the community centre. What you say will be recorded by tape-recorder, transcribed and translated into English.

Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence; I will be the only person to know your name. For everybody else a false name will be used in the report of the findings so that you cannot be recognized. I will keep what you tell me secure for five years. Then I will destroy the recordings.

Who is organising and funding the research?

This study has been funded by the Royal Thai Government and approved by the district health offices of the Thai Ministry of Public Health, and the local administration offices of the Thai Local Administration Institute.

What are the possible benefits of taking part?

I cannot promise the study will help you but the information I get from this study, and overall results will be used to identify ways of helping Thai parents to provide sex education to their adolescents, and to make recommendations for improvement in the provision of sex education.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to me as the researcher who will do the best to answer your questions

These are a researcher's contact details:
Mrs. Chaweewan Sridawruang
Boromarajonani College of Nursing Udon Thani
88 Moo 1, Tambon Nongpai,
Amphur Muang, Udon Thani Province
Tel No. +66 42-295406 or +66 81 2638989

Appendix C: Information sheets and consent forms

Appendix C3: Consent form for the adolescents

Local community, Udon Thani Province

An exploration of the attitudes of Thai adolescents and parents towards parental involvement in sex education.

Aim of Project: This study will use a sample of parents and adolescents from Udon Thani, Thailand to explore the attitudes of Thai parents and adolescents toward parental involvement in sex education; investigate the existing knowledge, attitudes, norms, and values of parents and adolescents in relation to sex and sex education; and explore the perceived needs of parents and adolescents concerning sex education.

Name of Researcher: **Mrs Chaweewan Sridawruang**

Please initial box

1. I confirm that I have received the information from Mrs Chaweewan Sridawruang (researcher) for the purpose and method of the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

☐

2. I volunteer to participate in this study and I am aware that I feel free to withdraw at any time without giving any reason, without legal rights being affected.

☐

3. I agree to do a questionnaire.

☐

4. I agree to participate in male only or female only focus group.

☐

5. I agree to participate in an interview.

☐

Name of Participant

Date

Signature [or thumbprint]

Name of Person
taking consent

Date

Signature

When completed, 1 for a participant; 1 for a researcher site file; 1 (original) to be kept in a local administration office.

Appendix C: Information sheets and consent forms

Appendix C4: Consent form for the parents

Local community, Udon Thani Province

An exploration of the attitudes of Thai adolescents and parents towards parental involvement in sex education.

Aim of Project: This study will use a sample of parents and adolescents from Udon Thani, Thailand to explore the attitudes of Thai parents and adolescents toward parental involvement in sex education; investigate the existing knowledge, attitudes, norms, and values of parents and adolescents in relation to sex and sex education; and explore the perceived needs of parents and adolescents concerning sex education.

Name of Researcher: **Mrs Chaweewan Sridawruang**

Please initial box

1. I confirm that I have received the information from Mrs Chaweewan Sridawruang (researcher) for the purpose and method of the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

☐

2. I volunteer to participate in this study and I am aware that I feel free to withdraw at any time without giving any reason, without legal rights being affected.

☐

3. I agree to do a questionnaire.

☐

4. I agree to participate in mixed sex focus group.

☐

5. I agree to participate in an interview.

☐

Name of Participant

Date

Signature [or thumbprint]

Name of Person
taking consent

Date

Signature

When completed, 1 for a participant; 1 for a researcher site file; 1 (original) to be kept in a local administration office.

Appendix C: Information sheets and consent forms

Appendix C5: Parents give consent before their adolescents will be recruited of a research

Local community, Udon Thani Province

An exploration of the attitudes of Thai adolescents and parents towards parental involvement in sex education.

Aim of Project: This study will use a sample of parents and adolescents from Udon Thani, Thailand to explore the attitudes of Thai parents and adolescents towards parental involvement in sex education; investigate the existing knowledge, attitudes, norms, and values of parents and adolescents in relation to sex and sex education; and explore the perceived needs of parents and adolescents concerning sex education.

Name of Researcher: **Mrs Chaweewan Sridawruang**

Please initial box

1. I confirm that I have received the information from Mrs Chaweewan Sridawruang (researcher) for the purpose and method of the above study. I and my son/ daughter have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I volunteer for my son/ daughter to participate in this study and I am aware that I and my son/ daughter feel free to withdraw at any time without giving any reason, without legal rights being affected.
3. I agree for my daughter/ my son to do a questionnaire
4. I agree for my daughter/ my son to participate in male only or female only Focus group.
5. I agree for my daughter/ my son to participate in In-depth interview

☐☐☐☐☐

Name of Participant

Date

Signature [or thumbprint]

Name of Person
taking consent

Date

Signature

When completed, 1 for parents' participant; 1 for researcher site file; 1 (original) to be kept in a local administration office.

Appendix D: Schedule for data collection

Period	Activities					Remark
	Surveys	Focus groups	In-depth interviews	Translation/ translation check	Meeting	
27-31 October 2008					/	Contact settings
3-9 November 2008	P1					Setting 1 (Nonglad village)
10-16 November 2008	A1					
17-23 November 2008		P1			/	
24-30 November 2008 (5)		A1				
1-7 December 2008 (6)			P1			
8-14 December 2008 (7)			A1			
15-21 December 2008					/	Meeting with the field supervisor
22-28 December 2008	A2					Setting 2 (Dongbang village)
5-11 January 2009 (11)	P2					
12-18 January 2009 (12)		PA2				
19-25 January 2009 (13)			PA2			
26 January-1 February 2009 (14)					/	Meeting with the field supervisor
2-8 February 2009 (15)	A3					Setting 3 (Nongyacai village)
9-15 February 2009 (16)	P3					
16-22 February 2009 (17)		PA3				
23-28 February 2009 (18)			PA3			
1-8 March 2009 (19)					/	
9-29 March 2009 (20-22)				/		Translation process
30 March-18 April 2009 (23-24)				/	/	-Translation check - Meeting with the field supervisor

;

P= Parents, **A**= Adolescents

1 = Setting 1: Nonglad village

2 = Setting 2: Dongbang village

3 = Setting 3: Nongyacai village

Appendix E: Instruments of the study

Appendix E1: The Questionnaire survey for the adolescents

This questionnaire is about your sexual and reproductive health knowledge. It is divided into 5 parts

Part 1: You and your family

Part 2: Information on and knowledge of sexual health

Part 3: Your awareness of contraception and condom knowledge

Part 4: Your ideas about HIV / AIDS and sexually transmitted infections, and

Part 5: Awareness of health services

This questionnaire has 30 pages. Questions are only on one side of the paper. Please read through and try to answer all questions. Circle the number that you want to answer, or fill in the blanks. Examples of how to complete this questionnaire are shown at the start of each section.

Example Question

1 In general, how do you feel about your life at present?

1 I feel very happy

I feel quite happy

3 I don't feel very happy

4 I'm not happy at all

(So the person who completed this question felt quite happy and circled choice two).

2 Have you ever smoked a cigarette?

1

How old were you when you first smoked a cigarette?

I was.....**14**..... years old.

2 No

(The person who completed this question had smoked a cigarette when they were fourteen).

It should take about 30 minutes to finish this questionnaire. Take your time to read each question carefully and answer it as best as you can. All answers will be kept confidentially, and nobody else will ever know what you have written.

Part 1 You and your family

Questions in this part are about your personal information. Please read through all questions, circle the number or fill in the blanks by the statement that suits you and your family.

- 1.1 Gender 1 Male 2 Female
- 1.2 What month and year were you born? Month / Year
...../.....
- 1.3 How old were you at your last birthday? Years
- 1.4 What level are you studying in? Level
- 1.5 How many more years of education do you expect to receive?Years
- 1.6 Is the school that you attend run by a particular religion?
- 1 Yes 2 No 3 Don't know
- 1.7 The school that you attend include
- 1 Boys and girls 2 Only boys 3 Only girls
- 1.8 What is your religion?
- 1 Buddhist 2 Catholic 3 Protestant
4 Muslim 5 Hindu 6 None
7 Other (Specify).....
- 1.9 How often do you usually attend religious services?
- 1 Less than once 2 At least once a week
3 Every day 4 At least once a month
5 At least once a year 6 Never
- 1.10 How important is religion in your life?
- 1 Very important 2 Important 3 Not important

1.11 Is your father alive?

- 1 Yes 2 No → Go to Q 1.13

1.12 Does he live in the same household as you?

- 1 Yes 2 No

1.13 Is your mother alive?

- 1 Yes 2 No → Go to Q 1.15

1.14 Does she live in the same household as you?

- 1 Yes → Go to Q 1.16 2 No

1.15 Who also lives with you?

- 1 Grandfather / grand mother 2 Step father / Step mother
3 Aunt / uncle
4 Others (Specify).....

1.16 Do you have any older brothers?

- 1 Yes 2 No → Go to Q 1.18

1.17 Do any live in the same household?

- 1 Yes 2 No

1.18 Do you have any older sisters?

- 1 Yes 2 No → Go to Q 1.20

1.19 Do any live in the same household?

- 1 Yes 2 No

1.20 Have you ever discussed sex and relationships related matters with the following people? How often?

Circle the answer that matches your experience (You can answer more than one answer)

	Yes Often	Yes Occasionally	Never
Mother / stepmother	1	2	3
Father / stepfather	1	2	3
Older brother or sister	1	2	3
Teacher	1	2	3
Boyfriend or girlfriend	1	2	3
Friends of my age	1	2	3
Older friends	1	2	3
Doctor	1	2	3
Nurse	1	2	3

Part 2 Information on and knowledge of reproductive health

Read through all questions. You can answer more than one answer. Write numbers 1 for the most important, 2 for the second most important, and 3 for the third most important statement that you want to answer.

Example

1 Do you ever drink alcohol?

1 Yes

2 No

If Yes, please indicate alcoholic that you drink most often, second most often and third most often. Label your choices, 1, 2, or 3 in the blanks.

..... High / extra-strength beer

...²..... Normal-strength beer

...³..... liqueurs, or cocktails / mixers (cocktails / mixers are mixers of spirits with soft drinks or fruit juices)

..... Sherry or martini (including port)

...¹..... Wine, or champagne

..... Cider

(The person who completed this question does drink alcohol, choosing wine / champagne most often, normal strength beer second most often, and thirdly cocktails).

2.1 Somchai is 14 years old and his body is changing. Please indicate the 3 most likely people/places he will go to for this information? Label your choices, 1, 2, or 3 in the blanks.

..... School teacher

..... Mother

..... Father

..... Brother

..... Sister

..... Other family members

..... Friends

..... Doctor/Nurse

..... Book/ magazines

..... Films/ Videos

..... Internet

..... Nobody

..... Others (Specify).....

2.2 Mali is 14 years old and her body is changing. Please indicate the 3 most likely people/places she will go to for this information? Label your choices, 1, 2, or 3 in the blanks.

..... School teacher	..... Mother	..... Father
..... Brother	..... Sister	..... Other family members
..... Friends	..... Doctor/ Nurse	..... Book/ magazines
..... Films/ Videos	..... Internet	..... Nobody
..... Others (Specify).....		

2.3 Somchai wants to know where eggs and sperm are made and how pregnancy occurs. Please indicate the 3 most likely people/places he will go to for this information? Label your choices, 1, 2, or 3 in the blanks.

..... School teacher	..... Mother	..... Father
..... Brother	..... Sister	..... Other family members
..... Friends	..... Doctor/Nurse	..... Book/ magazines
..... Films/ Videos	..... Internet	..... Nobody
..... Others (Specify).....		

2.4 Mali wants to know where eggs and sperm are made and how pregnancy occurs. Please indicate the 3 most likely people/places she will go to for this information? Label your choices, 1, 2, or 3 in the blanks.

..... School teacher	..... Mother	..... Father
..... Brother	..... Sister	..... Other family members
..... Friends	..... Doctor/Nurse	..... Book/ magazines
..... Films/ Videos	..... Internet	..... Nobody
..... Others (Specify).....		

2.5 Somchai wants to know how boys should act in a relationship with girls. Please indicate the 3 most likely people/places he will go to for this information? Label your choices, 1, 2, or 3 in the blanks.

..... School teacher	..... Mother	..... Father
..... Brother	..... Sister	..... Other family members
..... Friends	..... Doctor/Nurse	..... Book/ magazines
..... Films/ Videos	..... Internet	..... Nobody
..... Others (Specify).....		

2.6 Mali wants to know how girls should act in a relationship with boys. Please indicate the 3 most likely people/places she will go to for this information? Label your choices, 1, 2, or 3 in the blanks.

..... School teacher	..... Mother	..... Father
..... Brother	..... Sister	..... Other family members
..... Friends	..... Doctor/Nurse	..... Book/ magazines
..... Films/ Videos	..... Internet	..... Nobody
..... Others (Specify).....		

2.7 Have you had any classes at school, which have given information and / or discussed the following topics?
Circle the answer that matches your experience

	No	Yes, once	Yes, a few times	Yes, many times	Don't remember / don't know
1. How to act in a relationship	1	2	3	4	5
2. Sexual feelings and emotions	1	2	3	4	5
3. How our bodies develop	1	2	3	4	5
4. Pregnancy and having a baby#	1	2	3	4	5
5. Contraception and birth control	1	2	3	4	5
6. How to use a condom	1	2	3	4	5
7. Abortion	1	2	3	4	5
8. HIV / AIDS	1	2	3	4	5
9. Other sexually transmitted infections	1	2	3	4	5
10. Being a gay (men who find other men sexually attractive)	1	2	3	4	5
11. Being a lesbian (women who find other women sexually attractive)	1	2	3	4	5
12. Being bisexual (someone who finds both men and women sexually attractive)	1	2	3	4	5

2.8 Below are list of topics about sex and relationships.
 Circle the answer that matches what you think about being taught about each issue.

	Should have more classes	Should have fewer classes	About right	Shouldn't have classes	Don't know / No idea
1. How to act in a relationship	1	2	3	4	5
2. Sexual feelings and emotions	1	2	3	4	5
3. How our bodies develop	1	2	3	4	5
4. Pregnancy and having a baby	1	2	3	4	5
5. Contraception and birth control	1	2	3	4	5
6. How to use a condom	1	2	3	4	5
7. Abortion	1	2	3	4	5
8. HIV / AIDS	1	2	3	4	5
9. Other sexually transmitted infections	1	2	3	4	5
10. Being a gay (men who find other men sexually attractive)	1	2	3	4	5
11. Being a lesbian (women who find other women sexually attractive)	1	2	3	4	5
12. Being bisexual (someone who finds both men and women sexually attractive)	1	2	3	4	5

2.9 Are there any topics that you want to know about, and whom do you want to get information from about those topics?

Topics you want to know more about	Who you would like to tell you about it?

Part 3 Your awareness of contraceptive methods and condom

This section of the questionnaire asks about condoms and contraceptive methods.
Circle the number in the box that you think is true, false, or don't know, or fill in the blanks.

Examples

	True	False	Don't know
1 Taking the contraceptive pill could protect you against sexually transmitted infections?	1	2	3

(So the person who completed this question didn't think that taking the contraceptive pill could protect against sexually transmitted infections)

2 Do you usually go out with your friends?

1 Yes,

2 No

If Yes, what do you usually do with your friends? Please write
We usually go to cinema and pub

(So the person who completed this question did go out socially with their friends to the cinema and pub).

Below are questions asked about Somchai and Mali, who are the same age as you.

Somchai and Mali want to have sex but do not want to have a baby. How could they prevent Mali from getting pregnant?

	True	False	Don't know
3.1 Mali can get pregnant on the very first time that she has sexual intercourse.	1	2	3
3.2 Somchai can pull out of Mali before he comes (ejaculates), to prevent her getting pregnant.	1	2	3
3.3 They can avoid sex on days when pregnancy is most likely to occur.	1	2	3
3.4 Mali can take a pill every day to stop her having a baby.	1	2	3
3.5 Mali can have an injection every 2 or every 3 months to stop her having a baby.	1	2	3
3.6 Somchai can put a condom on his penis before sex to protect Mali from getting pregnant.	1	2	3
3.7 Mali can take a pill soon after sex to stop her getting pregnant.	1	2	3

3.8 Do you know where you could get contraceptives?

1 Yes

2 No

3 Not sure

3.9 Have you heard of any other methods of contraception? If so, please list them below.

.....

3.10 What method do you think Somchai and Mali are most likely to choose?

.....

Below are questions about condoms

3.11 Have you ever seen a condom?

1 Yes 2 No 3 Not sure

3.12 Is condom an effective method of preventing pregnancy?

1 Yes 2 No 3 Don't know/Not sure

3.13 Can condom be used more than once for sex?

1 Yes 2 No 3 Don't know/Not sure

Questions below ask about Somchai and Mali, who are the same age as you.

Somchai has sex with Mali. How do you think they would use condoms?

Circle the number in the box what you think about sentences below.

Example

	Strongly agree	Agree	Neither agree disagree	Disagree	Strongly disagree
1 Mali is too young to have sexual relationship.	1	2	3	4	5

(The person who completed this question felt strongly that Mali was too young to have sex).

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
3.14 Mali could suggest to Somchai that he use a condom.	1	2	3	4	5
3.15 Somchai could suggest to Mali that he use a condom.	1	2	3	4	5
3.16 It would it be too embarrassing for someone like Somchai to buy or obtain condoms.	1	2	3	4	5
3.17 If Mali suggested using a condom, Somchai might think she did not trust him.	1	2	3	4	5
3.18 If Mali suggested using a condom, Somchai might think Mali had relationship with others.	1	2	3	4	5
3.19 If Somchai and Mali want to have sex before marriage, they could use condoms.	1	2	3	4	5
3.20 Condoms are an effective way of protecting against HIV/AIDS.	1	2	3	4	5
3.21 Condoms are suitable for steady, loving relationships.	1	2	3	4	5
3.22 Condoms reduce sexual pleasure.	1	2	3	4	5
3.23 Condoms can slip off the boy and disappear inside the girl's body.	1	2	3	4	5
3.24 Condoms are an effective way of protecting against sexually transmitted diseases.	1	2	3	4	5

Part 4 Knowledge of HIV / AIDS and Sexually transmitted infections

This section is about HIV / AIDS and other Sexually transmitted infections. Please read through all questions, circle the number in front of the statement you want to answer, or fill in the blanks.

4.1 Have you heard of HIV?

1 Yes 2 No 3 Not sure

4.2 Have you heard of AIDS?

1 Yes 2 No 3 Not sure

4.3 Can people protect themselves from HIV?

1 Yes 2 No 3 Not sure

4.4 Is it possible to cure AIDS?

1 Yes 2 No 3 Not sure

4.5 Does a person with HIV always look unhealthy?

1 Yes 2 No 3 Not sure

4.6 Can people take a blood test to find out whether they have HIV?

1 Yes 2 No 3 Not sure

4.7 Apart from HIV/AIDS, are there any other diseases that boys and girls can catch by having sexual intercourse? Circle the number in front of the diseases that you have ever heard of.

1 Diabetes 2 Gonorrhoea 3 Genital warts
4 Malaria 6 Syphilis 7 Chlamydia
8 Herpes 9 Hepatitis B 10 Measles
11 Other)specify).....

4.8 How would a boy know if he has got a sexually transmitted infection?

.....
.....

4.9 How would a girl know if she has got a sexually transmitted infection?

.....
.....

4.10 If a friend of yours needed treatment for a sexually transmitted infection, where could they obtain such treatment? You can answer more than one answer

- 1 Pharmacy
- 2 Private doctor/ nurse/ clinic
- 3 Government hospital / health centre / clinic
- 4 Other (specify).....

4.11 What ways do you know about that can help protect people against Sexually transmitted infections? Write them in space below.

.....

.....

Part 5 Awareness of health services

Questions in this part are about your personal information. Please read through all questions. Circle the number in front of the statement you want answer, or fill in the blanks.

5.1 What do you think about the services (family planning clinic, STIs/HIV clinic, or counselling clinic)?

	Yes	No	Don't know / Not sure
1. I don't know where they are.	1	2	3
2. I don't know what services they provide for adolescents.	1	2	3
3. They do not have services for adolescents.	1	2	3
4 I worry people who work there will judge me.	1	2	3
5 I don't think they are very useful.	1	2	3
6 It is difficult to get to them. If you answer YES , it is difficult to get to them because	1	2	3

5.2 What types of services do you want to have for sexual health?

You can circle the number in front of statement more than once.

1. Counselling service
2. Telephone advice
3. Providing contraceptives
4. Transfer system for proper management
5. Out of hours clinic
6. Others (specify)

5.3 When did you last see a doctor?

- | | |
|--|----------------------|
| 1 Last week | 2 Last month |
| 3 Last 3 months | 4 Last 6 months |
| 5 Last year | 6 More than one year |
| 7 I have not seen a doctor or a nurse. | → |

How long? (Please write).....→ Go to Q 5.6

5.4 When you last visited the doctor, what was your reason for going?

- | | | |
|-------------------------------|-----------------------------|---------------|
| 1 Skin problem | 2 Fever | 3 Legs / arms |
| 4 Chest problems | 5 Ear / eye / nose / throat | |
| 6 Weight | 7 Allergies | |
| 8 Sexual health | 9 Personal issues | |
| 10 Others (Please write)..... | | |

5.5 Have you ever seen any poster about the topics listed below in the place where you saw a doctor?

	Yes	No	Don't know / Not sure
1. Healthy Eating	1	2	3
2. Smoking	1	2	3
3. Drugs	1	2	3
4. Alcohol	1	2	3
5. HIV / AIDS	1	2	3
6. Contraception	1	2	3
7. Condom	1	2	3
8. Pregnancy	1	2	3

If you are a **girl**, answer **5.6 (a)**. If you are a **boy**, answer **5.6 (b)**.

5.6 (a) GIRLS Have you ever had problems with the following?

	Yes	No	Don't know / Not sure
1. Irregular periods	1	2	3
2 Painful periods	1	2	3
3 Worrying about having sexual intercourse	1	2	3
4 Getting a Sexually transmitted infections	1	2	3
5 Unwanted Pregnancy	1	2	3
6 Having discharge from your vagina	1	2	3
7 Size and shape of your vulva / vagina	1	2	3
8 Other problems (Specify)	1	2	3

5.6 (b) BOYS Have you ever had problems with the following?

	Yes	No	Don't know/Not sure
1 Worrying about having sexual intercourse	1	2	3
2 Getting a Sexually transmitted infections			
3 Your girlfriend getting pregnant			
4 Having unusual discharge from penis			
5 Size and shape of your penis and testicles			
6 Other problems (Please write)			

5.7 Have you ever attended a talk by doctor or nurse on topics given below?

	Yes	No	Don't know / Not sure
1 Sexually transmitted infections	1	2	3
2 How babies are made			
3 How to avoid getting pregnant			
4 Did you have any question that you wanted to ask but felt shy / embarrassed about?			
5. If you asked any questions during the consultation did they answer question adequately?			

5.8 If your friends ask you about what it was like talking to the doctor about personal things, what would you tell them?

.....

.....

.....

5.9 Did you feel the talk was private?

1 Yes 2 No 3 Don't know

Why? Please write

.....

.....

.....

END

I remind you that all answers will be kept confidentially and will be used for research only. Now you have finished this questionnaire. If you have any questions you would like to ask about this questionnaire or your health you can ask the researcher.

Appendix E: Instruments of the study

Appendix E2: The Questionnaire survey for the parents

The parents' attitude towards teaching sex education

Items	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
1. Sex education induces adolescents to decide to have sexual experiences.	1	2	3	4	5
2. It is necessary to talk about sexual health with children when they are adolescents.	1	2	3	4	5
3. It is embarrassing when talking about sexual health with children.	1	2	3	4	5
4. Sex and relationships should be taught in school.	1	2	3	4	5
5. Teaching about contraception increases the likelihood of sexual relationships in adolescents.	1	2	3	4	5
6. Adolescents should not have a boyfriend or a girlfriend.	1	2	3	4	5
7. Parents should punish their children if they have sexual relationships.	1	2	3	4	5
8. Parents should be the first people to teach their children about sex and relationships.	1	2	3	4	5
9. Your children can talk and discuss all matters including sex related matters with you.	1	2	3	4	5
10. There should be reproductive health services available to adolescents.	1	2	3	4	5

Vuttanont, U, et al. (2006). *Smart boys and sweet girls. Sex education needs in Thai-Teenager a mixed-method study*. Lancet. Dec 9, 368(9552): 2068-80.

Appendix E: Instruments of the study

Appendix E3: The Semi structured interviews for the adolescents

Topic Focus	Core questions	Prompt
Main sources of sex information Most frequently used and most important sources	1. How have you found out about relationships, sex and contraception? 2. Whom or what do you rely on for sex information? 3. Whom or what are the most important sources of sex information to you?	Most influential sources Formal and informal channels of sex education.
Parents sex education-quantity and quality	4. How important are parents as sources of sex information? 5. Did your parents ever tell you about sex or discussed any matters related to sex with you? What issues/ topics have been spoken about? 6. How do you feel about sex information you have received from your parents?	Parental roles as sex educator
Gaps in knowledge	7. Are there any gaps or anything you would like to find out more about? Do you feel that the information you have received has been adequate?	Adequate of sex education knowledge
Socio-cultural or education barriers of parents (If parents never talk about sex to their adolescents, the researcher will ask No. 8 question)	8. Why do you think your parents have never spoken to you?	Barriers that prevent parents from providing sex education to their adolescents.
Adolescents' aspect of sex education	9. Would you have liked your parents to be more open? About what issues? In what ways? 10. What aspects of sex education are you most in need of your parents?	The needs of adolescents on sex education from their parents

Appendix E: Instruments of the study

Appendix E4: The Semi structured interviews for the parents

Topic Focus	Core questions	Prompt
Main sources of sex information Most frequently used and most important sources	1. How have you found out about relationships, sex and contraception? 2. Whom or what do you rely on for sex information? 3. Whom or what are the most important sources of sex information to you?	Most influential sources Formal and informal channels of sex education.
Parents sex education-quantity and quality	4. How important are parents as sources of sex information? 5. Did you ever tell your adolescents about sex or discussed any matters related to sex? What issues/ topics have been spoken about? 6. How do you feel about sex information you have provided to your adolescents?	Role of parents Parents and sex education with their adolescents
Gaps in knowledge	7. Are there any gaps or anything you would like to find out more about? Do you feel that the sex information you have provided has been adequate?	Adequate of sex education knowledge
Socio-cultural or education barriers of parents (If parents never talk about sex to their adolescents, the researcher will ask No. 8 question)	8. Why do you have never spoken about sex topics to your adolescents? What barriers that exist which may prevent you from providing sex education to your adolescents?	Barriers that prevent parents from providing sex education to their adolescents.
Parents' aspect of sex education	9. Would you have liked your adolescents to be more open? About what issues? In what ways? 10. What aspects of sex education are you most in need of from Public Health staff or teachers or others?	The needs of parents on sex issues from their adolescents and policymakers

Appendix E: Instruments of the study

Appendix E5: Reliability of questionnaire surveys of the parents and the adolescents

No.	Variables	Measurement Scale	No. of items	Cronbach's alpha
Measurement scales of adolescents				
1.	SRT	Schools have given information and/or discussed about sexual matters	12	.83
2.	SAR	Adolescents think about schools being taught about sexual issues	12	.95
3	AC	Awareness of importance of using a condom when having sex	11	.73
4	PP, HIV	Knowledge of prevention of pregnancy, condoms, and HIV	16	.77
5.	Total	No1. to 4	51	.77
Measurements scales of parents				
1	Attitudes	Attitudes of parents about teaching sexual issues	10	.70

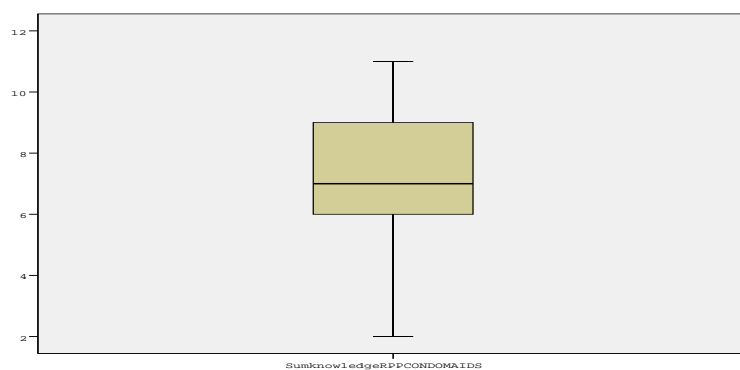
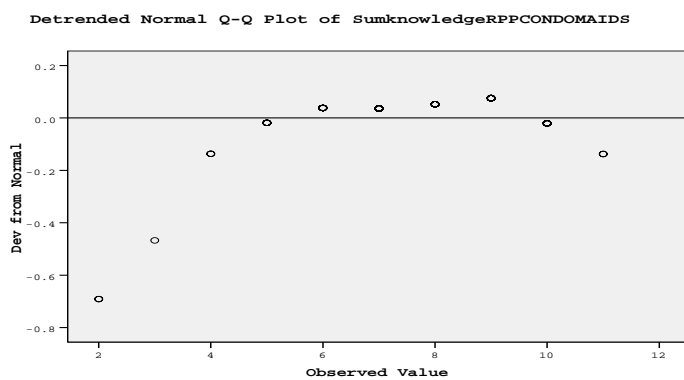
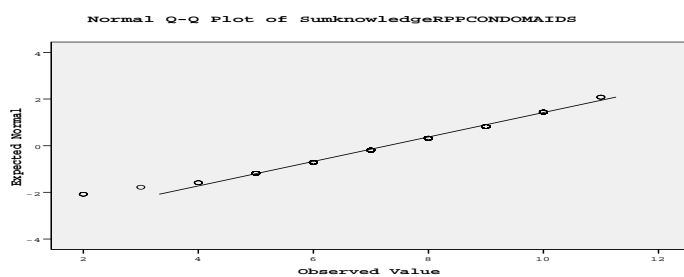
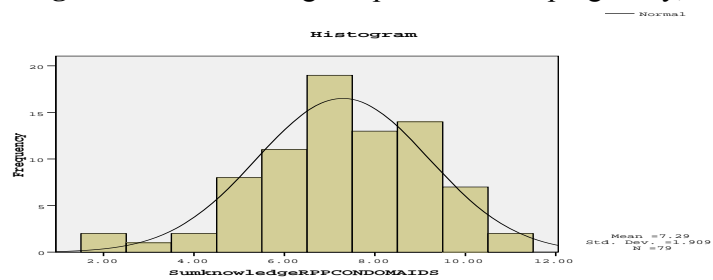
Appendix F: Normal distribution tests
Kurtosis and Skewness Coefficient of variables

Variables	Kurtosis			Skewness	Skewness	
	Kurtosis	Standard error of Kurtosis	Fisher Kurtosis Coefficient		Standard error of Skewness	Fisher Skewness Coefficient
Adolescents						
The knowledge of prevention	.29	.54	.54	-.48	.27	-1.75
The knowledge of prevention of male teenagers	1.15	.82	1.40	.83	.42	1.96
The knowledge of prevention of female teenagers	.25	.67	.37	.34	.34	.98
The awareness of using condoms	-.43	.54	.80	-.11	.27	.40
The awareness of using condoms of male teenagers	-.18	.82	-.21	.09	.42	.21
The awareness of using condoms of female teenagers	.51	.67	.75	-.18	.34	.53
Parents						
The attitude of parents towards teaching sex education in family	.22	.54	.42	-.03	.27	-.11
The attitude of parents towards teaching sex education in family for male guardians	1.03	.99	1.04	-1.10	.59	-1.86
The attitude of parents towards teaching sex education in family for female guardians	-.51	.63	.81	.04	.32	0.13

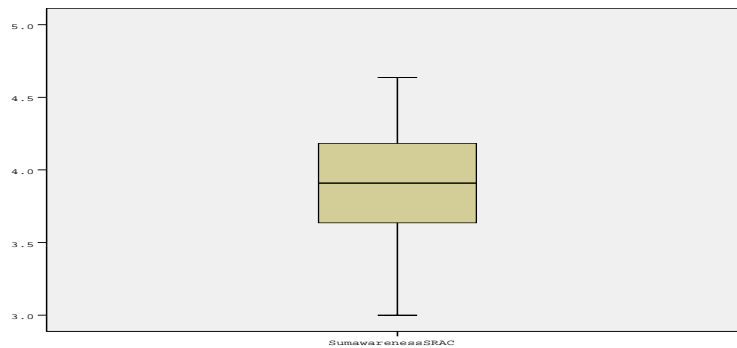
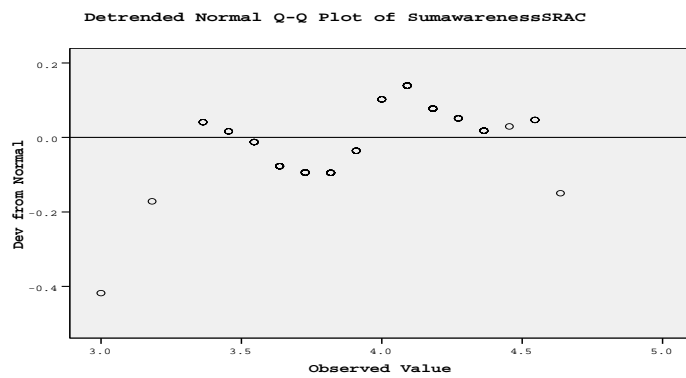
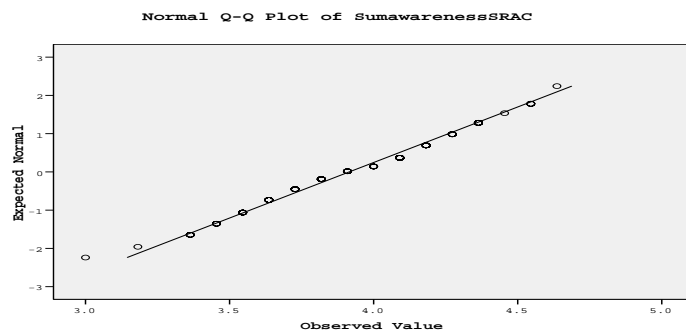
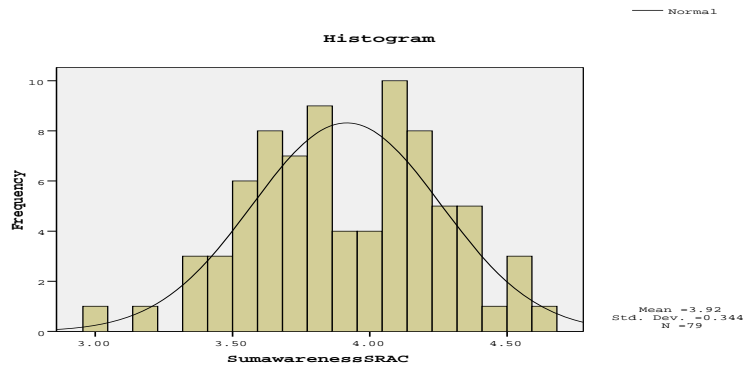
Kolmogorov-Smirnov tests

Variables	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Adolescents						
The knowledge of prevention	.14	79	.00	.96	79	.01
The knowledge of prevention of male teenagers	.19	31	.01	.91	31	.02
The knowledge of prevention of female teenagers	.12	48	.07	.97	48	.21
The awareness of using condoms	.11	79	.02	.98	79	.35
The awareness of using condoms of male teenagers	.11	31	.20	.98	31	.74
The awareness of using condoms of female teenagers	.133	48	.03	.977	48	.47
Parents						
The attitude of parents towards teaching sex education in family	.09	79	.05	.99	79	.50
The attitude of parents towards teaching sex education in family for male guardians	.17	23	.09	.91	23	.05
The attitude of parents towards teaching sex education in family for female guardians	.10	56	.20	.97	56	.26

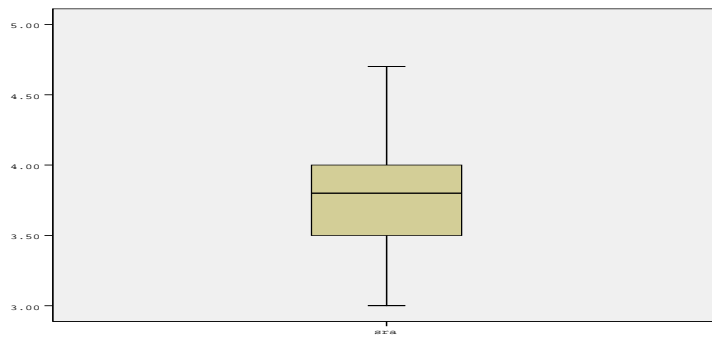
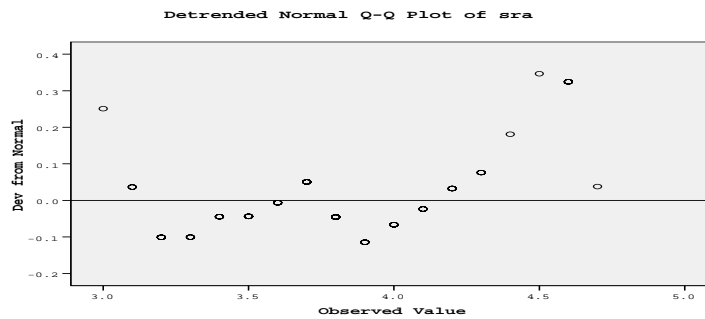
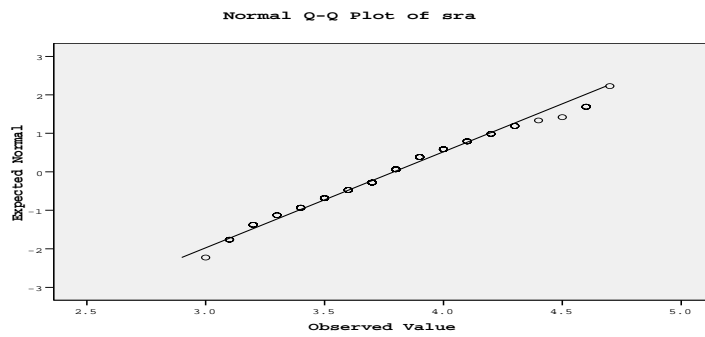
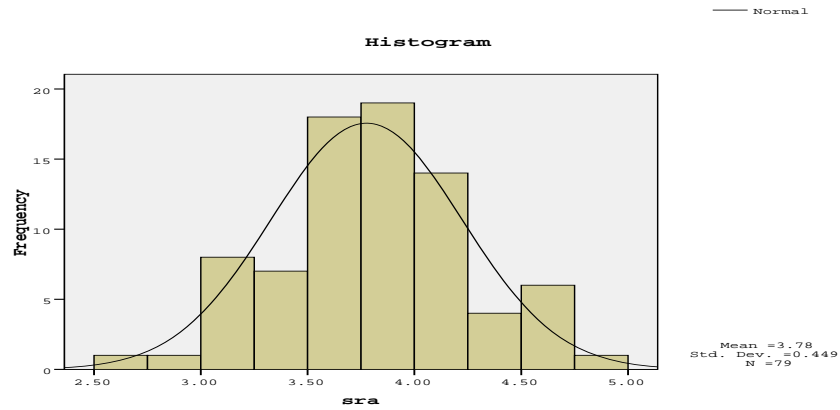
Histogram: The knowledge of prevention of pregnancy, condoms, and AIDS of adolescents



Histogram: The awareness of using condoms of adolescents

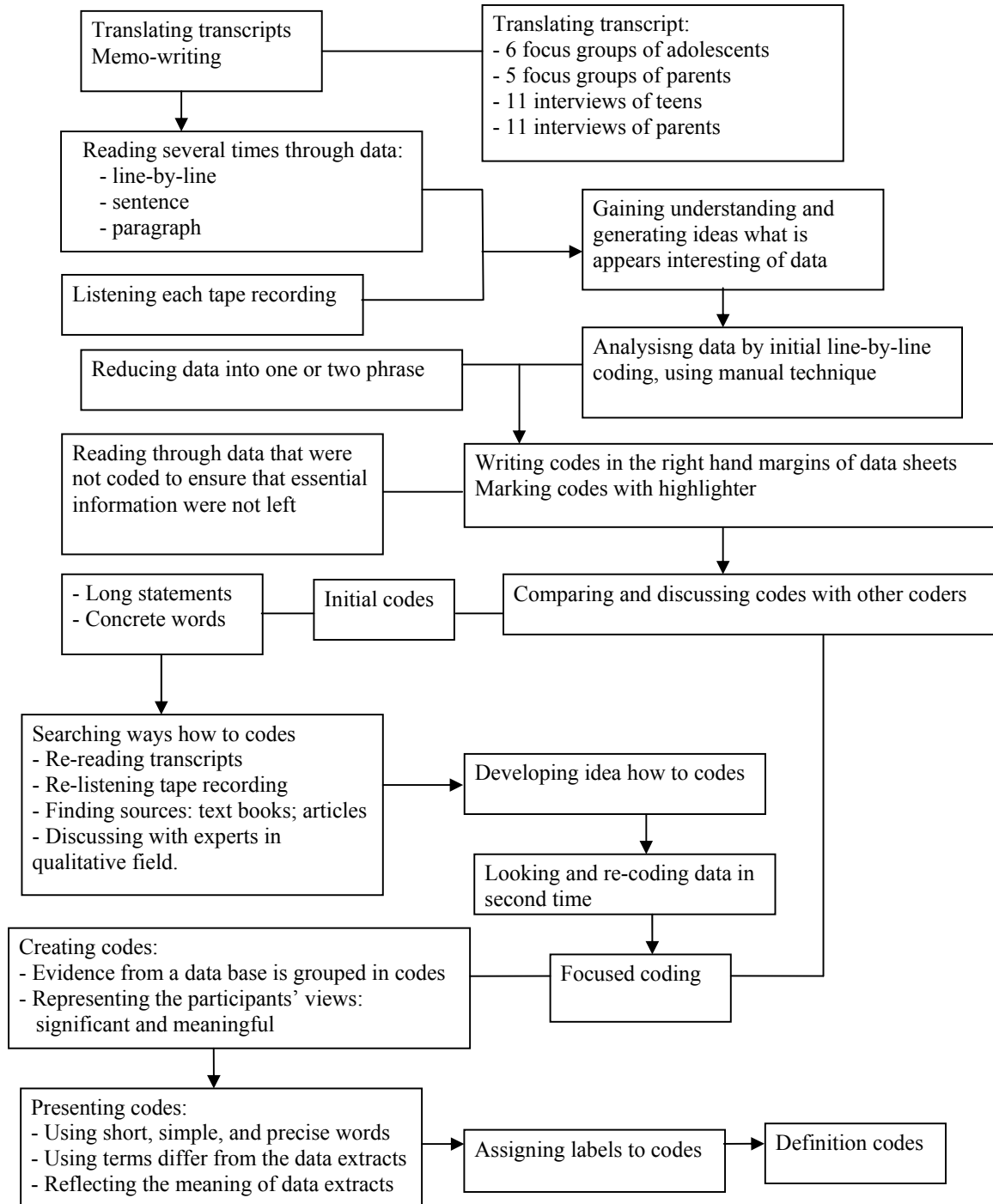


Histogram: The attitude of parents towards teaching sex education in family



Appendix G: Coding

Appendix G1: Coding process



Appendix G: Coding

Appendix G2: Coding examples

Data extract	Coded for	
	Initial coding	Focused coding
‘It is very hard for me and villagers to accept premarital sex of girls . Neighbours will gossip , criticise , and look down upon her.’ (P2N, father)	<ul style="list-style-type: none"> - hard to accept premarital sex - gossip, criticise, look down by neighbours 	<ul style="list-style-type: none"> - Premarital sex is unacceptable for girl - Social judgement of girls
‘Mali (name of a girl) may buy liquid oral abortion medicine first and if that does not succeed for an abortion she may then consult her parents about what to do.’ (P4D, father)	<ul style="list-style-type: none"> - Abortion is the way to resolve the problem of pregnancy. - Parents as consultants when the problem get out of control. 	<ul style="list-style-type: none"> - Dealing with teenage pregnancy - Parents as problem solvers
‘My boyfriend refused to take responsibility of my pregnancy but our parents of both families met and decided that we would be married after graduation from nine grade level.’ (In-depth, girl 1)	<ul style="list-style-type: none"> - Refusing to take responsibility of pregnant girlfriend - Families decide to resolve the problem by getting married 	<ul style="list-style-type: none"> - Shirking responsibility - Ways to resolve the problem by parents

Appendix H: Themes, and subthemes generated from parents and teenagers

Themes	Subthemes			
Theme 1: The influence of traditional Thai society persists	1. Social judgement of girls 2. Protecting teenagers and/ or enforcing the rules 3. Restrictions imposed by traditional Thai culture 4. Westernisation bring change			
Subthemes/ codes	Finding			
	Fathers	Mothers	Boys	Girls
Subtheme 1: Social judgement of girls				
1.1 Premarital sex is not accepted for Thai ‘good’ girls	7	10	10	11
- Expectation of Thai ‘good’ girls (s1/ T1)	3	3	1	3
- Social judgment of girls	3	8	5	4
1.2 Having sex is accepted for Thai boys (S2/ T3)				
1.2.1 Boys have nothing to lose	3	3	2	8
1.2.2 Shirking responsibility	5	2	4	7
Subtheme 2: Protecting teenagers and/ or enforcing the rules				
Parental strictness				
2.1 Sense of parental responsibility	3	2	✕	✕
2.2 Balance is needed	4	✕	2	2
2.3 Trust and respect of parents	7	4	6	5
2.4 Feeling negative about parents’ rule	✕	✕	4	3
Adolescents’ reaction to parental strictness (s2, T1)				
2.5 Rebelling against authority	6	6	12	3
2.6 Deciding to weigh up the situation	✕	4	4	✕
Subtheme 3: Restrictions imposed by traditional Thai culture				
3.1 Embarrassment	7	7	13	7
- Sex education is taboo subject	4	2	2	✕
3.2 Sex education is not parental duty	1	6	6	2
3.3 Sex education is the duty of schools	7	8	10	10
3.4 Other resources for sex education	1	8	7	10
3.5 Fear of changing society	1	1	✕	3
Subtheme 4: Westernisation brings change				
4.1 Different views of parents and children	4	4	12	7

Themes	Subthemes			
Theme 2: Talking sex still is difficult	1. Parental limitations 2. Better not bring it up 3. Parents rarely discuss sex directly with their children			
Subthemes/ codes	Finding			
	Fathers	Mothers	Boys	Girls
Subtheme 1: Parental limitations				
1.1. Lack of knowledge	6	8	10	9
1.2. Time limitation	6	3	5	8
Subtheme 2. Better not bring it up				
2.1 Inappropriate age for sex education	4	10	9	12
2.2 Sex education leads to experimentation	1	8	9	10
Subtheme 3. Parents rarely discuss sex directly with their children				
3.1 Parents do not mention sex education directly	4	6	8	4
3.2. Using prevention strategies as sex education	7	12	4	9
3.3 Importance of parents as sex educators				
3.3.1 Accepting parents as providers of sex education	5	6	4	4
3.3.2 Rejecting parents as providers of sex education	✕	✕	2	2
3.4 Appropriate time for parental sex education				
3.4.1 Before teenagers are having sex	6	14	8	19
3.4.2. After teenagers start having sex	5	4	2	5

Themes	Subthemes			
Theme 3: Sex happens	1. Fears and concerns 2. Considering risks when having sex 3. Facing risks 4. Parents as problem solvers			
Subthemes/ codes	Finding			
	Fathers	Mothers	Boys	Girls
Subtheme 1: Fears and concerns				
1.1 Scheme of the boy	7	11	10	7
1.2 Facing the situation of loss of virginity	3	9	2	5
1.3 Need long term relationship	1	2	3	1
Subtheme 2: Considering of risks when having sex				
2.1 Not using a condom	9	10	6	9
2.2 Refusing sex if a man has no a condom	1	1	3	1
Subtheme 3: Facing risks				
3.1 Dealing with teenage pregnancy	4	7	12	6
Subtheme 4: Parents as problem solvers				
4.1 Parental trust	×	×	7	5
4.2 Parents recognise that adolescents had sex	4	7	13	5
4.3 Asking the parents for help once the problem gets out of control	9	8	9	6
4.4 Finding someone to confide in	6	11	1	2
4.4.1 Mothers as a counsellor for children of both sexes				
4.4.2 Consultation with parents who are the same sex as children	1	3	1	1
4.5 Ways to resolve the problem by parents	7	7	1	2
Themes	Subthemes			
Theme 4 Toward the future (Adjusting for education strategies)	1. Problems are resolved within the family 2. Training by experts and the provision of resources for parents and adolescents 3. Creating networks for sex education			
Subthemes/ codes	Finding			
	Fathers	Mothers	Boys	Girls
Subtheme 1: Problems' solved within the family				
1.1 Promote family discussion of sex	1	1	2	4
1.2 Sharing experiences with neighbours	×	1	1	2
Subtheme 2: Training and resources for parents and adolescents				
2.1 Training parents and adolescents about sex education by experts	8	7	7	7
2.2 Providing necessary resources for parents and teenagers	2	5	4	4