

**SEXUAL KNOWLEDGE OF PREMARITAL PREGNANT
ADOLESCENTS IN RAUDHATUS SAKINAH**

BY

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Appendix 2 Questionnaire –Sexual Knowledge Assessment

Appendix 3 Consent form (2 version English and Malay)

Appendix 4 Approval letter from Ethics Committee

LIST OF ABBREVIATIONS

FFPAM	Federation of Family Planning Association Malaysia
FHE	Family Health Education
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
JIM	Jemaah Islah Malaysia
MOE	Ministry of Education
MOH	Ministry of Health
NPFDB	National Population and Family Development Board
RS	Raudhatus Sakinah
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization
WPRO	Western Pacific Regional Office

ABSTRAK

Pengenalan: Kesihatan reproduktif dan seksual merupakan aspek penting dalam memelihara kesihatan remaja. Pengetahuan seksual adalah antara faktor utama yang dapat mempengaruhi tingkah laku remaja. Isu remaja hamil luar nikah di Malaysia kini tidak boleh dipandang ringan dan diketepikan kerana prevalennya semakin meningkat.

Objektif: Mengetahui tahap pengetahuan remaja hamil luar nikah di Raudhatus Sakinah mengenai kesihatan reproduksi dan seksual dan faktor-faktor yang berkaitan dengannya.

Kaedah: Ini adalah satu kajian keratan rentas. Responden perlu menjawab sendiri satu borang soal selidik mengenai pengetahuan reproduksi dan seksual yang telah disahkan di mana penglibatan mereka adalah dengan keizinan individu. Sampel dipilih melalui kaedah persampelan sengaja kerana bilangan peserta adalah terhad (n=33). Profil mereka dianalisa secara deskriptif, iaitu purata (sisihan piawai) dan bilangan (%). Skor pengetahuan seksual dianalisa di dalam bentuk nilai angka berterusan dan tidak dikategorikan. Faktor-faktor yang berkaitan dengan tahap pengetahuan mereka dianalisa menggunakan “simple linear regression” untuk analisa univaribel dan “multiple linear regression” untuk analisa multivariabel.

Keputusan: Purata (sisihan piawai) umur kali pertama mengadakan hubungan seks ialah 16.3(2.0) tahun dan purata (sisihan piawai) umur semasa mengandung buat kali pertama ialah 17.1(1.4) tahun. Empat puluh dua peratus responden mempunyai

sejarah dicabul. Lapan puluh dua peratus responden tidak bersedia untuk berbincang dengan ibubapa mengenai isu seks. Sembilan puluh tujuh peratus responden telah menonton filem pornografi. Majoriti daripada peserta mempunyai pengetahuan yang tepat mengenai organ reproduksi tetapi sebaliknya mengenai aktiviti seksual dan proses kehamilan. Pengetahuan mengenai HIV adalah lebih baik berbanding pengetahuan mengenai penyakit kelamin yang lain. Media massa, guru dan rakan merupakan sumber pengetahuan tentang kesihatan reproduktif and seksual. Bagi setiap satu tahun peningkatan umur kali pertama mengadakan hubungan seks, skor tahap pengetahuan seksual meningkat 0.80(0.12,1.46) unit. Bagi setiap satu tahun peningkatan umur pasangan remaja perempuan pada kali pertama hubungan seks, skor tahap pengetahuan seksual berubah -0.47 (-0.79,-0.15) unit. Skor tahap pengetahuan seksual meningkat 14(6.59,21.42) unit bagi mereka yang telah menonton filem pornografi berbanding remaja yang tidak pernah menonton. Skor tahap pengetahuan seksual meningkat 3.80(1.24,6.34) unit bagi remaja yang mempunyai sejarah dicabul berbanding dengan yang tiada sejarah tersebut.

Kesimpulan: Remaja hamil luar nikah di Raudhatus Sakinah mempunyai tahap pengetahuan seksual yang baik. Faktor-faktor yang berkaitan dengan tahap pengetahuan mereka ialah umur semasa kali pertama mengadakan hubungan seks, umur pasangan remaja perempuan pada saat pertama mengadakan hubungan seks, sejarah dicabul dan menonton filem pornografi.

Kata kunci: remaja, hamil luar nikah, pengetahuan seksual

ABSTRACT

Introduction: The most challenging aspect of adolescence is sexual and reproductive health, as it is the area that poses the greatest difficulty in maintaining adolescents' health. Knowledge alone has not been shown to affect adolescent's behavior, nevertheless it is one of the most important factor that affect their reproductive health. The prevalence of premarital pregnancy among adolescents in Malaysia is increasing, thus this issue can't simply be ignored.

Objectives: To determine the sexual knowledge and identify the factors related to sexual knowledge of premarital pregnant adolescents in Raudhatus Sakinah.

Method: This is a cross sectional study using a self administered validated questionnaire. Study samples were from Raudhatus Sakinah institution in Kelantan, Johor and Penang where all eligible and consented individuals were included via purposive sampling due to limited samples (n=33). The profiles were analyzed as descriptive statistics namely mean (SD) and frequency (%). The dependent variable was the knowledge score which was analyzed as numerical variable. The factors related to the sexual knowledge were analyzed using simple linear regression for univariable analysis and multiple linear regression for multivariable analysis.

Results: The mean (SD) age of first coitus is 16.3(2.0) years and the mean (SD) age of first pregnancy is 17.1(1.4) years. Forty two percents had history of being raped. Eighty two percents are not willing to discuss sex with their parents. Ninety seven percent of respondent watched pornography. Majority of them has good knowledge on reproductive organs but poor knowledge on details of pregnancy. Knowledge on

HIV was better than other sexually transmitted diseases. Media, teacher and friends are their main source of sexual knowledge. For every year increase in age at first coitus, the knowledge increased by 0.80(0.12,1.46) units. For each year of increase in age of partner at the first coitus of the girl, the knowledge score changed by -0.47 (-0.79,-0.15) units. The knowledge score of premarital pregnant adolescent increase by 14(6.59,21.42) units among those who had watched pornography compared to those who did not watch. The knowledge score would increase by 3.80(1.24,6.34) units for premarital pregnant adolescent with history of rape compared to without history of rape.

Conclusions: The sexual knowledge of premarital pregnant adolescents in Raudhatus Sakinah is good. The sexual knowledge was significantly related to their age at first coitus, history of rape, age of partner at first coitus of the girl and watching pornography.

Keywords: adolescent, premarital pregnancy, sexual knowledge

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

1.1.1 Reproductive Health

WHO defined reproductive health as a state of complete physical, mental and social well-being, and not merely the absence of reproductive disease or infirmity. Reproductive health deals with the reproductive processes, functions and system at all stages of life (WHO, 2007).

In Malaysia, the issue of sex, sexual health and sexuality are considered as private and sensitive, highly related to our culture, nevertheless these issues are now of public concern as it affect the lives and rights of each individual, family and communities. “Private Lives, Public Issues, Global Perspectives on Adolescent Sexual Health” was the theme for 9th World Congress International Association for Adolescent On 29th October 2009 (Lai, 2009).

1.1.2 Adolescents

According to United Nation, adolescence is defined as the stage of life during which individuals reach sexual maturity. It is the period of transition from puberty to maturity (UnitedNations, 1997). WHO identifies the age group 10-19 as the period of adolescence. The reproductive health problems and needs of adolescents are different from youth aged 20-24.

There are an estimated 1.2 billion adolescents in the world today. Adolescent remain as one of the most important component in the population pyramid, where on average in the world, one in every five people is an adolescent. Majority of the adolescents are living in the developing countries. In Malaysia, young people (15-24 years of age) make up a fifth of the population, while younger children (0-14 years of age) make up about 40%. There is no specific data for age group of 10-19 years old.

The most challenging aspect of adolescence is sexual and reproductive health, as it is the area that poses the greatest difficulty in maintaining adolescents' health.

1.1.3 Age at marriage

In Malaysia, Under the Shari'ah law, for Muslim the minimum age for marriage for women is 16 years and for men it is 18 years. Under the Civil Marriages law for non Muslim, the minimum age at first marriage for both women and men is 18 years of age. The mean age at first marriage for female in Malaysia has increased from below 20 in 1970, it rose to 24.5 years in 1990 and 24.9 in 1994 (WHO, 2007). There are two distinct issues concerning the trends of age at marriage that have implications for the sexual and reproductive health of adolescents.

The first issue is regarding the trend towards an increase in the age at marriage. This trend has resulted in a longer period of adolescence before marriage. The increasing trend in age at first marriage may be explained by a multitude of

factors, but rapidly expanding educational opportunities, especially for girls, may have resulted in the postponement of marriage. Other reasons include female independence and work participation away from home before marriage, and increasing freedom in the choice of marriage partner (WHO, 2007). Besides the biological aspect, marriage also has significant social and economic impact. Age at first marriage is used as a measure of entry into sexual activity for boys and girls, as well as exposure to risk of pregnancy and childbirth for girls.

At the same time, a number of studies have documented the trend of a fall in age at menarche, which implies an earlier onset of adolescence, sexual maturity and the ability to reproduce (Gubhaju, 2002). This trend is associated with environmental, genetic and socio-economic factors, including improved nutrition and exposure to modern social life. As a result, girls of younger age are biologically mature enough to engage in sex and can become pregnant much earlier, although emotionally and psychologically they are not prepared.

The possibility that young people will engage in premarital sexual activity increases with the widening gap between age at menarche and age at marriage increases (Gubhaju, 2002). Moreover, because of the Asian culture that does not discuss freely, adolescent girls are particularly vulnerable to the risks associated with misinformed and unprotected sexual intercourse, as well as the adverse consequences of adolescent pregnancy.

1.1.4 Factors that lead to risky behavior among adolescents

There are four main categories of factors and barriers that can lead to risky sexual behavior among adolescents especially premarital adolescents (Gubhaju, 2002).

Limited access to information: adolescents often do not have access to sufficient and correct information. Wrong perception and a sense of non-susceptibility lead to uninformed decisions, which may result in unwanted pregnancy and STDs

Peer pressure: Growing social acceptance of premarital sex plays a major role in decision-making among adolescents and other young people. As adolescence is a developmental period of physical transition and identity formation, the struggle for individual autonomy and the gender identity, makes adolescents susceptible to peer pressure. The influence of peer pressure is increasing due to erosion of traditional parental control over premarital sexual behavior and the declining role of family.

Inadequate access to youth-friendly health services: This is a major barrier for adolescents. They have different needs from pediatric age group and their health problems are not like those of adults, they require specially trained health personnel. But our current health care staffs are not prepared and trained to discuss regarding sexuality with school children and adolescents.

Economic constraints: Economic difficulty can influence the behavior of adolescents. Resource constraints affect the ability to buy contraceptives or seek medical services.

1.1.5 Maternal and child health

The prevalence of adolescence pregnancy in Kelantan is 4.3 % (Zulkifli *et al.*, 1995) but this data most probably is just the tip of the iceberg as it only capture hospital delivery. Adolescent pregnancy and childbearing had significant impact on maternal and child health. Children born to adolescent mothers are highly likely to have a low birth weight and to be premature, injured at birth or stillborn, and are associated with delivery complications resulting in higher mortality (Royston *et al.*, 1989). The increased risk of infant death to adolescent mothers is also associated with immaturity of early childbearing and inexperience in childrearing. Baby dumping is also one of the crucial issues associated with premarital pregnancy

According to WHO, pregnancy is a leading cause of death for young women aged 15 to 19 worldwide, with complications of childbirth and unsafe abortion being the major factors. According The Confidential Enquiry for Maternal Deaths Report 2005, 4.8% of all maternal death in Malaysia are among adolescent age 15 –19.

1.1.6 Contraceptive Use

The study of the use of contraceptives among adolescents reveals an important finding. Adolescent girls may know about contraceptives, but do not necessarily use them (Gökengin *et al.*, 2003). The overall unmet need among adolescents might therefore be much higher if sexually active, unmarried adolescents who were not currently using any contraceptives were included.

1.1.7 Sexually transmitted diseases and HIV/AIDS

Almost one third of those currently living with HIV/AIDS are aged 15-24 (UNAIDS, 1997). Adolescents are more vulnerable than adults to unplanned pregnancies, sexually transmitted diseases and HIV/AIDS. Adolescents tend to have multiple partners and use condoms and other contraceptives inconsistently (Gubhaju, 2002). Furthermore, younger women are more vulnerable to forced sex and sex in exchange for gifts and money, with increased risks of contracting sexually transmitted diseases, including HIV/AIDS (Ashford, 2001). In 2005, 70,559 cases of sexually transmitted disease was reported in Malaysia with 15% of all cases were HIV infections (UNAIDS, 1997)

1.2 Justification and Rationale of Study

This study would help to understand better regarding the current issue of social problem focusing on adolescence pregnancy. The study looks into their personal and familial background and determines their knowledge on sexuality and the factors related to their knowledge. This study would provide epidemiological data on factors related to adolescence pregnancy that can assist in making proper and adequate preventions.

1.3 Background of the Study Area

Raudhatus Sakinah (RS) is an institution that give aids for female adolescents that involved in social problems such as premarital sex, smoking, adolescent pregnancy, or behavioral problems. RS offers shelter home; counseling,

religious guidance and training for the adolescents who wish to repent from their sins and improve themselves. The entrance criteria include problematic female adolescent that is Malay with Malaysian citizenship, a Muslim and within the age of 12 to 25 years old. Those under legal prosecution or having chronic illness are not accepted.

Raudhatus Sakinah (RS) began its operation in August 1998 under Wanita Pertubuhan Jamaah Islah Malaysia (WJIM). RS is one of their continuous community projects to curb the social problems in our country targeting the female adolescent. RS was registered under Welfare Department (Akta Pusat Jagaan 1993). The main Raudhatus Sakinah is RS Selangor. The organization was led by Prof Madya Dr Harlina Halizah Hj Siraj, Chairman of the Board OF Director of Raudhatus Sakinah. Each branch institution has their own chairman and operational manager. The first institution initially started in Selangor, followed by Kelantan in 2004. Now, there are 5 institutions all together, located in Selangor, Kelantan, Pulau Pinang (2007), Johor (2008) and Melaka (2010). Each institution can accommodate about 20 persons at a time and the turnover is very high.

Each RS centre accepts participants from all over the country including Sabah and Sarawak. At the time the data collection was conducted in RS Kelantan, the residents are a mixture of adolescent from Kelantan, Terengganu, Pahang, Johor, Selangor, Kedah (Langkawi), and also Sarawak. The same apply for other RS centers, it includes not just nearby state but all over the country. The participant must stays at RS for a whole of one year and entrance is not specified to any

particular time, thus residents differ each month because they have different entrance and ending time.

The main activities conducted in RS include spiritual guidance and teaching, religious teachings, vocational training, counseling therapy, arts, recreational and physical activity including games, picnic and nasyeed.

The aim of the training in RS is to ensure that the adolescents understand and practice Islam as their way of life, help in building up their self-esteem, assist unfortunate adolescent to have faith to carry on their life in a healthy way and most importantly to save another precious life, prevent baby dumping and wastage. Each baby delivered by the adolescents in RS will be adopted legally either by their own family members or other family that request for child adoption. The family that request for adoption will have to comply with certain requirement before they can adopt to ensure that the family would be able to take good care of the child.

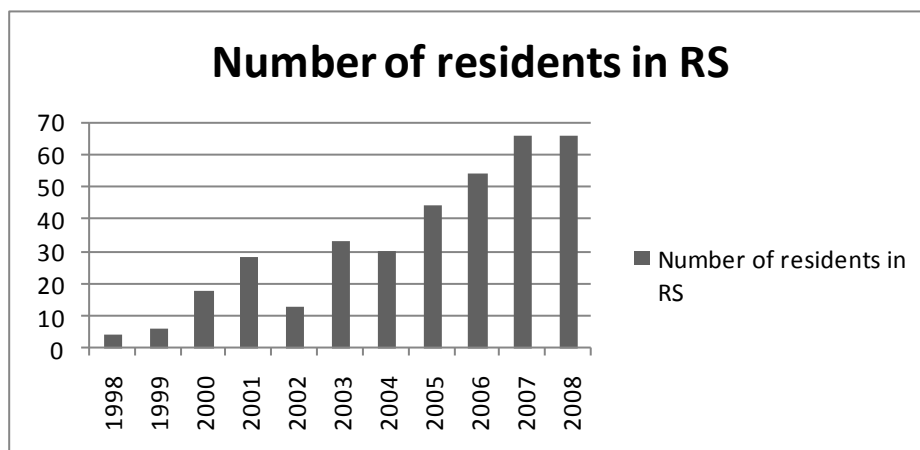


Figure 1.1 : Number of residents in all branches of Raudhatus Sakinah, Malaysia from 1998-2008

CHAPTER 2: LITERATURE REVIEW

2.1.1 Sexual behavior - Premarital sex

Survey results on sexual behaviours of adolescents in Asia suggest that a noticeable percentage of adolescents are sexually experienced (Gubhaju, 2002). In Korea, for example, 24 per cent of male and 11 percent of female secondary school student reported to have had premarital sexual intercourse(WHO, 2007). A study in Negeri Sembilan found that prevalence of premarital sex is 13.0% (Zulkifli and Low, 2000b)

2.1.2 Sexual education

American Guidelines for Comprehensive Sexuality Education described sexuality education as a lifelong process of acquiring information and forming attitudes, beliefs and values about identity, relationships and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image and gender roles. Sexuality education addresses the biological, sociocultural, psychological and spiritual dimensions of sexuality from the cognitive domain, the affective domain, and the behavioral domain, including the skills to communicate effectively and make responsible decisions (SIECUS, 2004).

There are no laws in Malaysia requiring schools to include sexuality education in their curriculum but some efforts have been made to address other aspects of adolescent health. The slow and uncertain uptake of sex education in Malaysia is due to the cultural and religious realities of the country. Basically sexual

education can be divided into formal and informal. Formal education is from school whereby informal education is out-of-school education. Informal sex education has been conducted outside the school setting, carried out by both governmental and nongovernmental agencies.

2.1.2 (a) Formal (school) education

The Ministry of Education is responsible in delivering the education on sexuality in school. In the review of literature and projects (WHO, 2007) regarding sexual and reproductive health of adolescents in Malaysia, it mentioned about the Family Health Education programme. Sex education or adolescent reproductive health is called Family Health Education (FHE) in Malaysian schools, and is an educational programme designed to give students accurate, latest knowledge about human sexuality. The knowledge includes biological, psychological, sociocultural and moral dimensions of sexuality. The aim of FHE is to assist students about the physical, educational and social changes they undergo. Since 1989, elements of FHE have been taught in secondary schools through physical and health education, science, biology, moral and Islamic education classes. Beginning in 1994, elements of FHE have also been introduced to primary school children through physical and health education. FHE also gives them skills to cope with those changes and maintain healthy relationships with family members, friends and other members of the community. For Muslims, sexual and reproductive health is taught in Islamic Education, which is a compulsory subject. It includes the internalization of Islamic values and good conduct, as well as practices contained in the instructions for the Muslim way and duties of life. The Ministry of Education faces several challenges

with FHE and Islamic Education. FHE, despite being around for many years, has not been as effective as was hoped. Monitoring efforts have found that teachers either shy away from teaching the component or do not have the skills to deal with sensitive subjects. Such situations are lost opportunities because schools have the resources and facilities to make educational programmes work (WHO, 2007).

2.1.2 (b) Informal (out-of-school) education

Other agencies including government and non-government sectors, also conducted programmes to address adolescent health. Majority of the programmes are community based. Example of other agencies involved in developing and implementing training modules related to adolescent health are NPFDB, the Muslim Religious Council, the Malaysian AIDS Council, FFPAM and other nongovernmental organizations.

2.1.3 Effect of sexual education

Knowledge alone has not been shown to affect adolescent behavior change. Adolescents who have been exposed to knowledge-based sex education programmes have a significant increase in knowledge on testing but have not delayed coitus nor been more likely to use contraceptives (Gökengin *et al.*, 2003). Programmes that tend to be successful in changing behavior are skill-building, problem-solving and communication-based (Darroch *et al.*, 2000; Somers and Paulson, 2000). Understanding how adolescents make decisions in early sexual activities is critical for intervention efforts aimed at fostering positive youth development and

decreasing the negative outcomes of adolescent sexual behavior. Although the sexual education's role in avoiding early sexual experiences is still controversial, references in the literature can already be found showing that pregnancy among adolescents can be prevented with sexual education.

Sexual education is a means and not an end in itself, which leads to a need to ponder on the specific needs of each age group and on risk factors.

2.1.4 Source of Information

There are different findings of study about the source of sexual information of adolescents. According to a poll in America, adolescents rank parents as first in importance out of 11 possible sources of information about sex and birth control (Harris and Associates, 1986). Other frequently cited sources were: friends second, school third and movies fourth (Neuman and Beard, 1989). Another study found that adolescents ranked friends as the primary source with the mass media second and parents third (Amonker, 1980). Teachers, school counselors, physicians, and nurses were rarely checked as a source of sexual information.

2.1.5 Factors related to sexual knowledge

2.1.5 (a) Socioeconomic status

A study showed that socioeconomic status (Gökengin *et al.*, 2003) had impact on sexual knowledge and behavior. Different finding noted in a study by

Gallegos in 2007 where sexual knowledge was not associated with their parents' economic status and educational level.

2.1.5 (b) Family background and relationship

The sexual knowledge of adolescents is also affected by family background and relationship (Somers and Paulson, 2000). The same study also highlight that parental closeness is not as influential as parental communication (Somers and Paulson, 2000). A study by Gökengin *et al.*, in Turkey found adolescents' sexual knowledge would increased with increased in mother's education level.

2.1.5 (c) Religiosity and culture

A study done in Pulau Pinang among secondary school adolescents showed that religiosity affect their sexual knowledge (Anwar *et al.*, 2010).

2.1.5 (d) Source of knowledge

A study by Gökengin *et al.*, in Turkey found that adolescents' sexual knowledge is associated with field of study where students from science courses has better knowledge than other courses. Another study in Malaysia also showed similar finding where secondary school students in science stream had better sexual knowledge compared to arts stream (Anwar *et al.*, 2010). Mass media is the main source of knowledge source of knowledge regarding contraception and complication of premarital sex (Anwar *et al.*, 2010).

2.1.5 (e) Individual experience

Research done in other country highlighted that individual experience of adolescents (Hahm *et al.*, 2006) was related to their sexual knowledge. Another study by Somers and Paulson in 2000 found that sexual knowledge is associated with gender and age of adolescent, where higher age is related to better sexual knowledge.

2.1.6 Conceptual framework

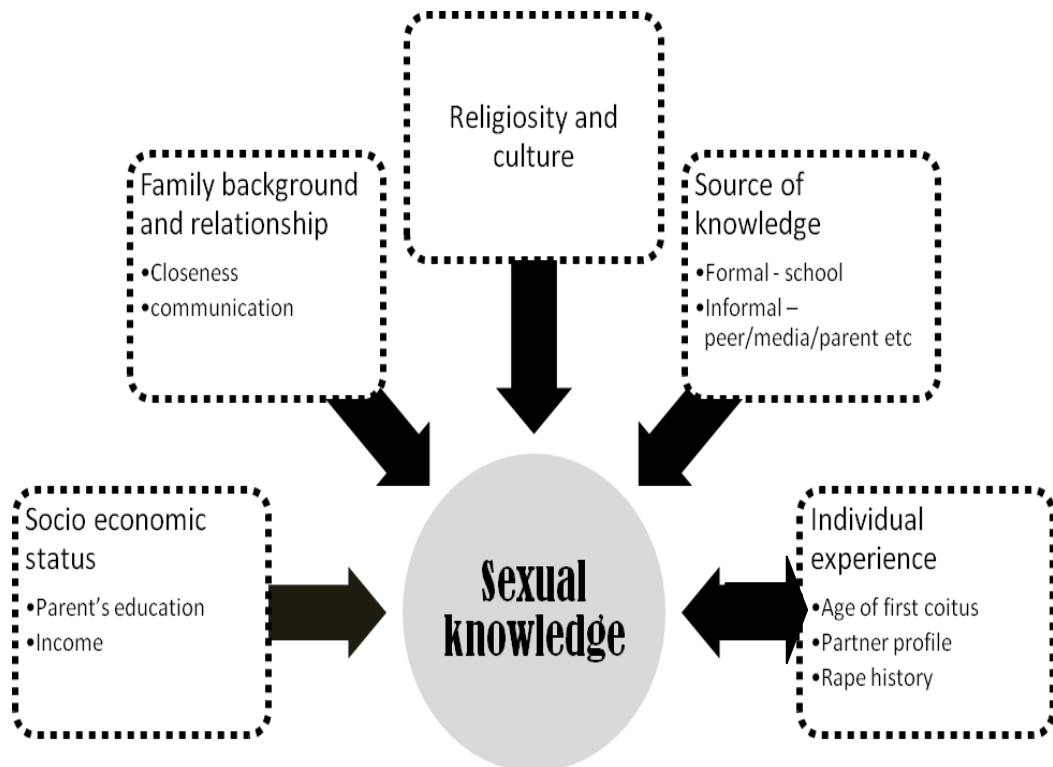


Figure 2.1: Conceptual framework of factors related to sexual knowledge of adolescents

CHAPTER 3: OBJECTIVES, RESEARCH QUESTIONS, HYPOTHESIS

3.1 General Objectives

To determine the sexual knowledge of premarital pregnant adolescents in Raudhatus Sakinah and its related factors.

3.2 Specific Objectives

Objective 1

To describe the individual, family and social profiles of premarital pregnant adolescents in Raudhatus Sakinah, Malaysia .

Objective 2

To measure the level of sexual knowledge among premarital pregnant adolescents in Raudhatus Sakinah, Malaysia.

Objective 3

To identify the factors related to the level of sexual knowledge among premarital pregnant adolescents in Raudhatus Sakinah, Malaysia.

3.3 Research Question

Question 1

What are the individual, family and social profiles of pregnant adolescents in Raudhatul Sakinah?

Question 2

What are the score of knowledge regarding sexuality of premarital pregnant adolescent in Raudhatul Sakinah?

Question 3

What are the factors related to level of knowledge on sexuality among premarital pregnant adolescence staying at Raudhatul Sakinah?

3.4 Hypothesis

Sexual knowledge of premarital pregnant adolescents in Raudhatul Sakinah is associated with religion, formal education level, family relationship, previous sexual history and socioeconomic status.

CHAPTER 4: METHODOLOGY

4.1 Study Design

Cross sectional study

4.2 Study Period

October 2010 – March 2011

4.3 Reference Population

Malay, Muslim, premarital pregnant adolescents in Malaysia

4.4 Source population

Raudhatus Sakinahs' institution in Malaysia; namely Raudhatus Sakinah Kelantan, Raudhatus Sakinah Johor and Raudhatus Sakinah Pulau Pinang

4.5 Inclusion criteria

- * Age 10 – 19
- * History of being pregnant or currently pregnant

4.6 Exclusion Criteria

- * Non-consented residents
- * Underlying mental problem
- * Illiterate

4.7 Sampling Frame

List of residents of RS in Selangor, Pulau Pinang, Johor and Kelantan who were eligible during the study period, and fulfill the criteria.

4.8 Sample Size Calculation

4.8.1 Sample size was calculated for knowledge score using the formula of single mean.

$$n = \left(\frac{z(SD)}{\Delta} \right)^2 = \mathbf{48 \text{ sample}}$$

Z = 1.96 (95% CI) SD = 7.06 (Rahman, 2009) $\Delta = 2.0$

4.8.2 Sample size was calculated using the formula to compare means of sexual knowledge score between groups of populations that live with both parents and live with only one, for objective (3), based on PS Software.

power = 0.8

probability of type I error = 0.05.

SD = 7.06 (Rahman, 2009)

detectable difference = 5

m = 5:1 - ratio of living with both parents to living with single parents (Lee *et al.*, 2006)

Calculated sample size = 19 + 95 = **114 samples**

**similar questionnaire were used in this study with the one calculated for sample size*

Largest calculated sample size is 114, taking into consideration 10% dropout, final sample size is 125 samples.

4.9 Sampling Method

All eligible respondents were included in the study via purposive sampling because of limited number of respondent as compared to calculated sample size.

4.10 Study Approval

The study was approved by the Chairman of Raudhatus Sakinah.

4.11 Research Tool

A self administered validated questionnaire assessing knowledge on sexuality by Razlina *et al.*, 2009. The validation was published in Book of Abstract, 9th IAAH World Congress, 28-30 October 2009 (Cronbach's alpha : 0.7).

The questionnaire consists of profiles which are further classified into seven sub domains which are:

1. Individual profile
2. Socioeconomic status
3. Sexual history
4. Familial relationship and religiosity
5. Preferences on sex issue discussion
6. Source of knowledge on sexuality
7. Other experiences and behavior

The domains of sexual knowledge:

1. Reproductive organs
2. Sexual activity and pregnancy
3. Complications of sexual activity
4. Knowledge on contraceptive method

Each answer was categorized as correct, not sure or wrong. Correct answers will be scored as (2), not sure as (1) and wrong scored as (0). Total marks were analyzed in numerical form.

4.12 Data Collection

Adolescents in Raudhatus Sakinah were explained regarding the research and its confidentiality. They were allowed to ask questions and not forced into giving consent. Each participant who consented for the study need to fill up the consent form. They were given about an hour to fill up the questionnaire and can ask question if need any clarification (self administered questionnaire).

4.13 Data Entry and Statistical Analysis

Data entry and analysis were done using PASW version 18. The analyses were divided into descriptive statistics and analytical statistics. The descriptive statistics were presented as mean (standard deviation, SD) for numerical variables; meanwhile the categorical variables were presented as frequency and percentage.

The knowledge score as the dependent variable was entered as and analyzed as numerical variables. The univariable analysis was done using simple linear regression while the multivariable analysis was done using multiple linear regression. The independent variable analyzed for simple linear regression include the personal factors, family relationship, sexual experiences and behavior and socioeconomic factor. Variables with p value of 0.25 and less was considered significant at univariable analysis and was put into the model of multiple linear regression. Statistically insignificant variables, which are clinically significant, were also put into the model. All 3 methods, stepwise, forward and backward were used for variable selection, but the preliminary main effect model was then chosen based on backward method because backward method can capture the most number of significant values compared to other methods. The model was checked for interaction and multicollinearity. The assumption of the preliminary final model was checked to get the final model. Assumptions were checked using predicted and residuals value of the model's equation. The level of significance for multivariable analysis was set at p value < 0.05 (2-tails).

4.14 Ethical Approval

The study was approved by the research ethics committee, Universiti Sains Malaysia (ref: USMKK/PPP/JePeM [235.4.(1.13)]).

This study involved premarital pregnant adolescents, where in most cases their personal profile is kept confidential by RS institution to protect their identity.

Thus any research done involving them must comply with that rule. This research in any form didn't expose their identity.

Other ethical issue is that some of the participants are below the legal age to give consent (18 years old). Thus, for the adolescents less than 18 years old, their consent was further supported by either their warden or operational manager of respective RS.

4.15 Flow chart of study

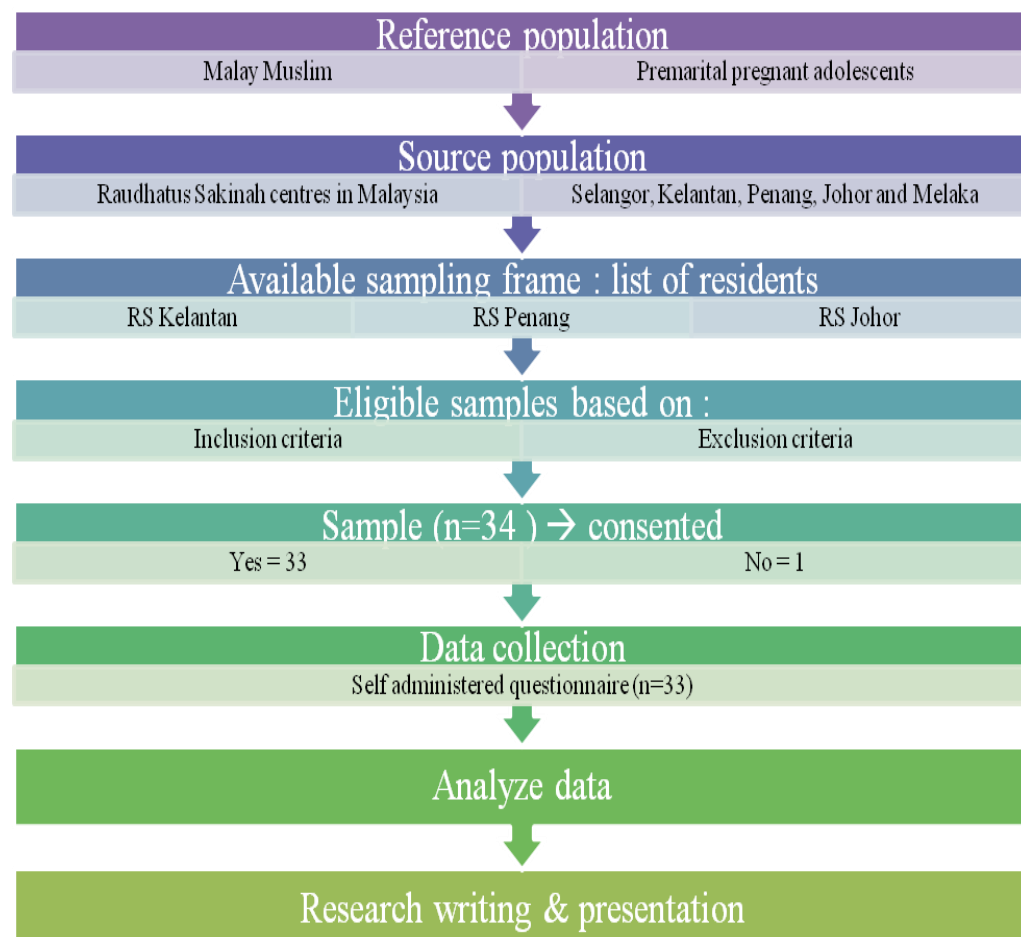


Figure 4.1: Flow chart of study on sexual knowledge of premarital pregnant adolescents in Raudhatus Sakinah.

CHAPTER 5: RESULTS

5.1 Profiles of premarital pregnant adolescents in Raudhatus Sakinah

A total of 33 respondents from all respective centre of Raudhatus Sakinah(RS) participated in the study. Centers include Raudhatus Sakinah Kelantan, Raudhatus Sakinah Johor and Raudhatus Sakinah Pulau Pinang. Participants in Raudhatus Sakinah Melaka were not included because at that time the centre was just opened and not ready to participate in research and only have five residents, meanwhile Raudhatus Sakinah Selangor was closed for research due to overloaded of research done at the centre at that particular time.

All the respondent were Malays and Muslim adolescents. Their age range was from 15 to 19 years old. All of them have either history of being pregnant or currently pregnant.

5.1.1: Individual profile

The individual profiles of premarital pregnant adolescent in Raudhatus Sakinah are shown in Table 5.1. The mean(SD) age of the female adolescent that participates in the study is 17.7(1.2) years, ranging from 15 - 19 years old. The mean(SD) number of siblings is 5.5(2.1) where minimum number is two and maximum is ten.

Almost all are single, only 2(6.1%) of them get married after knowing their pregnancy status. Majority of the adolescents live with their mother and father 25(75.8%).

Majority of them 25(75.8%) attended up to secondary level of education (defined by either PMR or SPM) and only 6(18.2%) had tertiary education level. Tertiary education levels include STPM, matriculation or diploma. Only a small portion of the participants ever stay at a boarding school 4(12.9%).

Table 5.1: Individual profile of premarital pregnant adolescent in Raudhatul Sakinah (n=33)

Characteristic	n (%)
Age (year)	17.7 (1.2) ^a
Number of siblings	5.5 (2.1) ^a
Marital status	
Yes	2(6.1)
No	32(93.9)
Living with	
Mother and father	25(75.8)
Mother only	2(6.1)
Father and step mother	1(3.0)
Alone	1(3.0)
Foster parents	1(3.0)
Others	3(9.1)
Formal education level	
Primary education	2(6.1)
Secondary education	25(75.8)
PMR	14(42.4)
SPM	11(33.3)
Tertiary education	6(18.2)