



**UNIVERSITI PUTRA MALAYSIA**

***FACTORS ASSOCIATED WITH KNOWLEDGE, ATTITUDE AND  
PRACTICE IN SEXUAL AND REPRODUCTIVE HEALTH AMONG  
MALAYSIAN POSTGRADUATE STUDENTS AT UNIVERSITI PUTRA  
MALAYSIA***

**SHAHLA SOLEYMANI**

**FPSK(M) 2014 20**



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MALAYSIA**

**By**

**SHAHLA SOLEYMANI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfillment of the Requirement for the Degree of Master of Science**

**February 2014**

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## **DEDICATION**

**This thesis is especially dedicated to my beloved: Mother Parizad Savadkuhi and my family for unconditional patience, support and encouragement throughout this project and my life.**

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
Fulfilment of the Requirement for the degree Master of Science

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**SHAHLA SOLEYMANI**

**February 2014**

**Chairman: Associate Professor Hejar Binti Abdul Rahman, M.D.**

**Faculty: Medicine and Health Sciences**

Sexual health issues faced by young people are premarital sexual intercourse, sexually transmitted diseases, unwanted pregnancies, unsafe abortions and human immunodeficiency virus infection. Knowledge about sexual and reproductive health is very important for young people to prevent behaviors that place them at risk of contracting sexually transmitted diseases and unwanted pregnancy. The aim of this study was to determine the knowledge, attitude and practice related to sexual and reproductive health among Malaysian postgraduate students in Universiti Putra Malaysia.

A cross-sectional study design was used. The study population was Malaysian postgraduate students in Universiti Putra Malaysia, using systematic random sampling. Data was collected from 5<sup>th</sup> of September to 28<sup>th</sup> of September 2012 using a pre-tested self-administrated questionnaire. Data was analyzed using SPSS version 20.0. The significant level was set at  $p < 0.05$ .

Response rate was 100%. Out of the 434 Malaysian postgraduate students, 21.4% were male and 78.6% were female. Majority were Malays (70.3%) followed by Chinese (18.2%) and Indians (8.1%). The overall mean age of respondents was 26.95 years (95% CI 26.54-27.36) and ranged from 20 years to 46 years. The mean age of

the males and females were 26.82 ( $\pm$ SD 4.125) year and 27.41 ( $\pm$ SD 4.91) years, respectively. The main sources of information for sexual and reproductive health awareness reported by the respondents were the internet (78.6%) and newspaper (61.8%). The overall mean knowledge score of students on sexual and reproductive health was 30.27 (SD  $\pm$ 8.58) and ranged from 0 to 69 points. The result of this study revealed that the majority (97.9%) of students knew that AIDS is a sexually transmitted disease. Almost 81.3% of students knew about syphilis, 24.4% about chlamydia and 37.09% about gonorrhoea respectively. More than half of the participants believed that the spread of sexually transmitted diseases was through casual contact, such as using public toilet (77.4%), through kissing (64.5%) and through shaking hands (92.1%). The students' answers regarding the ways of avoiding sexually transmitted diseases were abstaining from sexual intercourse (20.7%), having one uninfected faithful sex partner (85.57%) and using condom (88.4%) during sexual activity. Mean attitude score toward sexual and reproductive health was 20.02 (SD  $\pm$ 9.91) and ranged from 0 to 46 points. Mean practice score regarding sexual and reproductive health was 4.14 (SD  $\pm$ 4.50) and ranged from 0 to 22 points. The results also showed that marital status ( $F = 14.94$ ,  $p = 0.001$ ) and faculty ( $F = 21.21$ ,  $p = 0.001$ ) were the associated factors with knowledge of sexual and reproductive health. Attitude related to sexual and reproductive health was significantly associated with marital status ( $F = 12.67$ ,  $p = 0.001$ ). The practice of respondents related to sexual and reproductive health was significantly associated with gender ( $F = 191.93$ ,  $p = 0.001$ ) and ethnicity ( $F = 8.75$ ,  $p = 0.003$ ).

In conclusion, the result of study showed that the knowledge related to sexual and reproductive health among Malaysian postgraduate students in Universiti Putra Malaysia is not satisfactory. The respondents seem to have unfavorable attitude on the prevention of sexually transmitted diseases. Usage of condom is low among those who had sexual intercourse. Intervention programs related to sexual and reproductive health are recommended to improve the knowledge, attitudes and practice of Malaysian postgraduate students.

Keywords: Sexual health, Knowledge, Attitude, Practice, Postgraduate students, Universiti Putra Malaysia

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sains

**FAKTOR BERKAITAN DENGAN PENGETAHUAN, SIKAP DAN AMALAN DALAM KESIHATAN SEKSUAL DAN REPRODUKTIF KALANGAN PELAJAR SISWAZAH MALAYSIA DI UNIVERSITI PUTRA MALAYSIA**

Oleh

**SHAHLA SOLEYMANI**

**February 2014**

**Pengerusi : Prof. Madya Hejar Binti Abdul Rahman, M.D.**

**Fakulti : Perubatan dan Sains Kesihatan**

Isu-isu kesihatan seksual yang dihadapi oleh belia ialah hubungan seksual pra perkahwinan, penyakit kelamin, kehamilan yang tidak diingini, pengguguran yang tidak selamat dan jangkitan virus *human immunodeficiency*. Pengetahuan mengenai seksual dan kesihatan reproduktif adalah sangat penting kepada belia untuk mengelak daripada tingkah laku yang berisiko untuk dijangkiti penyakit kelamin dan kehamilan yang tidak diingini. Matlamat kajian ini adalah untuk mengenalpasti pengetahuan, sikap dan amalan berkaitan dengan seksual dan kesihatan reproduktif di kalangan pelajar siswazah Malaysia di Universiti Putra Malaysia.

Kajian keratan rentas telah digunakan. Populasi kajian adalah pelajar siswazah Malaysia di Universiti Putra Malaysia menggunakan persampelan sistematik rawak. Data telah dikumpul dari 5 September hingga 28 September 2012 menggunakan borangkaji selidik yang diisi sendiri dan yang telah di pra uji Data telah di analisa menggunakan SPSS versi 20.0. Tahap signifikan telah ditetapkan pada  $p < 0.05$ .

Kadar respon adalah 100%. Daripada 434 pelajar siswazah Malaysia, 21.4% adalah lelaki dan 78.6% adalah perempuan. Majoriti adalah Melayu diikuti dengan Cina (18.2%) dan India (8.1%). Secara keseluruhan, purata umur responden adalah 26.95 tahun (95% CI 26.54-27.36) dan julat daripada 20 tahun hingga 46 tahun. Purata

umur bagi lelaki dan perempuan masing-masing 26.82 ( $\pm$ SD 4.125) tahun dan 27.41 ( $\pm$ SD 4.91) tahun. Sumber maklumat utama bagi kesedaran seksual dan kesihatan reproduktif yang dilaporkan oleh responden adalah internet (78.6%) dan surat khabar (61.8%). Purata keseluruhan skor pengetahuan responden adalah 30.27 ( $\pm$ SD 8.58) dan julat daripada 0 hingga 69 mata. Keputusan kajian ini menunjukkan majoriti (97.9%) pelajar mengetahui bahawa AIDS adalah penyakit kelamin. Hampir keseluruhan 81.3% pelajar tahu mengenai sifilis, 24% klamidia dan 37.09% gonorrhoea. Lebih dari separuh peserta percaya bahawa penyebaran penyakit kelamin berjangkit berkemungkinan melalui sentuhan biasa seperti menggunakan tandas awam (77.4%), melalui ciuman (64.5%) dan melalui berjabat tangan (92.1%). Pelajar-pelajar menjawab mengenai cara-cara mengelakkan penyakit seksual adalah menahan diri dari hubungan seks (20.7%), mempunyai seorang pasangan seks setia yang tidak dijangkiti (85.57%) dan menggunakan kondom (88.4%) semasa aktiviti seksual. Purata skor sikap terhadap seksual dan kesihatan reproduktif ialah 20.02 ( $\pm$ SD 9.91) dan julat dari 0 hingga 46 mata. Purata skor amalan berkaitan seksual dan kesihatan reproduktif ialah 4.14 ( $\pm$ SD 4.50) dan julat 0 hingga 22 mata. Keputusan juga menunjukkan bahawa status perkahwinan ( $F = 14.94, p = 0.001$ ) dan fakulti ( $F = 21.21, p = 0.001$ ) merupakan faktor yang berkaitan dengan pengetahuan tentang kesihatan seksual dan pembiakan. Sikap berkaitan seksual dan kesihatan reproduktif adalah berkaitan secara signifikan dengan status perkahwinan ( $F = 12.67, p = 0.001$ ). Amalan responden mengenai seksual dan kesihatan reproduktif berkaitan secara signifikan dengan jantina ( $F = 191.93, p = 0.001$ ) dan etnik ( $F = 8.75, p = 0.003$ ).

Secara kesimpulan, hasil daripada kajian menunjukkan pengetahuan berkaitan seksual dan kesihatan reproduktif di kalangan pelajar siswazah Malaysia di Universiti Putra Malaysia adalah tidak memuaskan. Responden mempunyai sikap tidak elok mengenai pencegahan penyakit kelamin. Penggunaan kondom adalah rendah di kalangan mereka yang mengadakan hubungan kelamin. Program intervensi mengenai seksual dan kesihatan reproduktif. Dicadangkan untuk meningkatkan pengetahuan, sikap dan amalan pelajar siswazah Malaysia.

Kata kunci: Kesihatan seksual, Pengetahuan, Sikap, Praktis, Pelajar siswazah, Universiti Putra Malaysia



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- All my lovely friends in Malaysia for enjoyable social life in a wonderful country.

Last but not least, I wish to express my gratitude to my family for their support and encouragement.

I certify that a Thesis Examination Committee has met on 14 February 2014 to conduct the final examination of Shahla Soleymani on her thesis entitled “Factors Associated With Knowledge, Attitude and Practice Regarding Sexual and Reproductive Health among Malaysian Postgraduate Students in UPM” in accordance with the Universities and University College Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The committee recommends that the student be awarded the Master of Science.

Members of Thesis Examination Committee were as follows:

**Lim Wai Kong, PhD**

Associate Professor  
Faculty of Medicine and Health Sciences  
University Putra Malaysia  
(Chairman)

**Anita binti Abdul Rahman, PhD**

Senior Lecturer  
Faculty of Medicine and Health Sciences  
University Putra Malaysia  
(Internal Examiner)

**Huda binti Zainuddin, PhD**

Senior Lecturer  
Faculty of Medicine and Health Sciences  
University Putra Malaysia  
(Internal Examiner)

**Rahmah Mohd Amin, PhD**

Associate Professor  
Faculty of Medicine and Health Sciences  
University Sultan Zainal Abidin (UniSZA)  
(External Examiner)

---

**NORITAH OMAR, PhD**

Associate Professor and Deputy Dean  
School of Graduate Studies  
University Putra Malaysia  
Date: 19 May 2014

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirements for the degree of Master of Science. The members of the Supervisory Committee were as follows:

**Hejar Binti Abdul Rahman, M.D., Master Community Health**

Associate Professor  
Faculty Medicine and Health Sciences  
University Putra Malaysia  
(Chairman)

**Lekhraj Rampal, MBBS, MPH (HONS), DRPH, FAMM**

Professor  
Faculty Medicine and Health Sciences  
University Putra Malaysia  
(Member)

**Nor Afiah Binti Mohd Zulkefli, M.D., Master Community Health, PhD**

Associate Professor  
Faculty Medicine and Health Sciences  
University Putra Malaysia  
(Member)

---

**BUJANG BIN KIM HUAT, PhD**

Professor and Dean  
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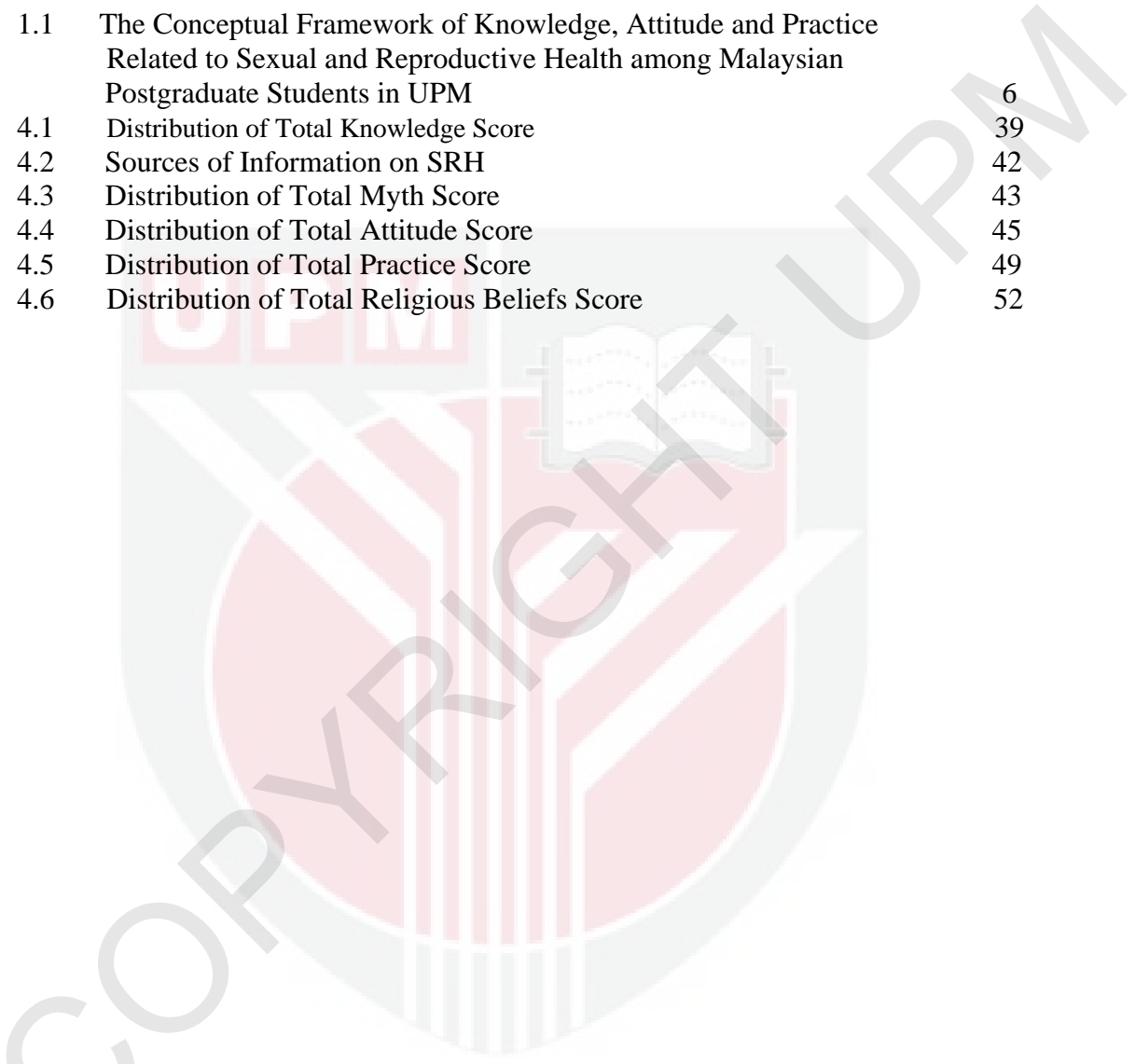
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## LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANOVA	Analysis Of Variance
CDC	Centers for Disease Control and Prevention
EC	Emergency Contraception
FFPAM	Family Planning Associations in Malaysia
FRHAM	Federation of Reproductive Health Associations in Malaysia
GLM	General Linear Model
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
IPPF	International Planned Parenthood Federation
IUD	Intra Uterine Device
MDG	Millennium Development Goal
NGOs	Non-Governmental Organizations
OC	Oral Contraceptive Pill
SRH	Sexual and Reproductive Health
STD	Sexually Transmitted Disease
STIs	Sexually Transmitted Infections
UPM	Universiti Putra Malaysia
UNAIDS	United Nation Joint Program on HIV/AIDS
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
WHO	The World Health Organization



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of Study

According to World Health Organization (WHO), reproductive health is defined as a total physical, mental and social safety and it is not only the absence of illness or feebleness. In other words, reproductive health includes all issues related to the reproductive system and its function. It also indicates the ability of having a safe and satisfying sex life, having capacity to reproduce and being free to decide when and how often to do it. There is the same criterion for sexual health based on WHO definition in relation to sexuality (WHO, 2011).

WHO reports shows that annually about 500 million new cases of sexually transmitted diseases (STD) (syphilis, gonorrhoea, chlamydia and trichomoniasis) happens all around the world among people aged 15-49 years old, excluding Human Immunodeficiency Virus (HIV) and other sexually transmitted infections which continue to threaten the individuals' lives and communities' health (WHO, 2011).

In 2011, the Centers for Disease Control and Prevention (CDC) mentioned receiving a total of 1,412,791 reports of *Chlamydia trachomatis* infections in the world. Following a 74% decrease in the rate of reported gonorrhoea between 1975 and 1997, total gonorrhoea rates was a plateau for 10 years. Then it declined between 2006 and 2009 to the lowest rate and finally increased 2.1% during 2009- 2010 (CDC, 2011). According to this report, from 2003 to 2005, prevalence of high risk Human Papilloma Virus (HPV) in women aged 14–19, 20–29 , 30–39 and 40–49 years old was 35%, 29%, 13% and 11% respectively (CDC, 2011).

In its latest report, the Joint United Nations Program on HIV/AIDS (UNAIDS), showed that almost 60,000,000 people are infected by Human Immunodeficiency Virus (HIV) worldwide, which about 20 million of them are expected to die (Steinbrook, 2004). In developing countries, the important proportions of the newly infected are among the youths and about 33% of all new HIV infections happen in people aged of 15- 24 years (UNAIDS, 2009).

The most efficient way to avoid getting infected with or transmitting a sexually transmitted infection is refraining from all kind of sexual intercourse or having sexual intercourse only within a long-term and trusted monogamous partner. Regular male condoms, if used consistently and correctly, are also highly effective in decreasing the transmission of infections (WHO, 2011).

Unwanted pregnancy is one of the most constant social problems having negative effects on individuals, families and society. It is considered that approximately 60% of all pregnancies are unplanned (Bensyl *et al.*, 2005). The most important reasons of unintended pregnancies are no birth control method use and unsuccessful contraceptive use (Mosher *et al.*, 2004). Since 80% of college women have sexual activities, access to inexpensive, safe and effective contraception is very important for them to avoid unintended pregnancies (Greydanus *et al.*, 2005).

Worldwide, approximately 80 million women have unwanted pregnancies and more than 500,000 women die from difficulties related to pregnancy, childbirth, and the postpartum period (Glasier *et al.*, 2006). According to WHO in 2008, about 20 million unsafe abortions happened worldwide, almost all of them in developing countries. Increasing the numbers of unsafe abortions will be continued unless women have better access to safe abortion and contraception (WHO, 2011).

The Ministry of Health in Malaysia, December 2008 revealed that about 2.0% of HIV infections were among 13-19 years old and 25% of infections are among people aged between 20 to 29 years old. An investigation has shown the average age of the first sexual intercourse is 15 years and the percentage of premarital sexual activity seems to have increased over the years in Malaysia (Lee *et al.*, 2006). Adolescents who initiated sexual intercourse early are less likely to use contraception and they are at high risk for pregnancy (Manlove *et al.*, 2000).

Sexual and reproductive health (SRH) research in Malaysia has focused on different issues and fields of SRH among adolescences and adults. Data reported a ranged from low mean knowledge score among school students (Rahman *et al.*, 2011) and university students (Low, 2004) to high mean knowledge score in female staff (Tee and Huang, 2009).

## **1.2 Significance of study**

Postgraduate university students have significant influence on the future development of the country. The level of health knowledge, attitude and practice of people can influence the health situation of the country. In this era, investigation on public health knowledge, attitude and practice are significant concerns to organize effective education programs to meet the society and country goals in accordance and parallel with Millennium Development Goals (MDGs) (WHO, 2011).



Disorders related to SRH can lead to the morbidity and mortality for individuals in their reproductive age globally. Individuals with low knowledge are more at risk of negative effects of unhealthy reproductive system and sexual behavior including unintended pregnancies, abortion, infertility, maternal death, sexually transmitted infections including HIV and sexual dysfunction (WHO, 2011).

Unwanted pregnancy is a social problem having negative effect on the quality of life of both parents and children. In a university in the U.S., women aged 20-24 have one of the highest percentages of unwanted pregnancies because of the lack of using contraceptive methods and unsafe sexual activities. Since 80% of sexually active college women are not willing to become pregnant, it is vital to provide these women with effective contraceptive alternatives (Bryant, 2009).

Data on sexual and reproductive health knowledge, attitude and practice are important for planning effective education program. There are not many studies done on the level of knowledge, attitude and practice among Malaysian postgraduate students on sexual and reproductive health in Universiti Putra Malaysia (UPM). Specifically, the present research will determine the influence of socio-demographic characteristics and religious beliefs on sexual and reproductive health knowledge, attitude and practice of Malaysian postgraduate students in UPM.

### **1.3 Research Questions**

- What are the socio-demographic characteristics (gender, age, ethnicity, religion and marital status) and current educational status (faculty and year of study) of Malaysian postgraduate students in UPM?
- What are the knowledge, sources of information and myths about sexual and reproductive health among Malaysian postgraduate students in UPM?
- What are the attitude, practice and religiosity about sexual and reproductive health among Malaysian postgraduate students in UPM?
- Is there any association between socio-demographic characteristics (gender, age, ethnicity, religion and marital status), current educational status (faculty and year of study) and knowledge, attitude and practice about sexual and reproductive health among Malaysian postgraduate students in UPM?

- Is there any association between religiosity and knowledge, attitude and practice about sexual and reproductive health among Malaysian postgraduate students in UPM?
- Is there any association between knowledge and attitude, Knowledge and practice, Attitude and practice, related to sexual and reproductive health?
  
- Is there any associated factor with knowledge, attitude and practice related to sexual and reproductive health?

## **1.4 Objectives**

### **1.4.1 General objective**

To determine the knowledge, attitude and practice of sexual and reproductive health and the factors associated among Malaysian postgraduate students in UPM.

### **1.4.2 Specific objectives**

1. To determine the socio-demographic characteristics (gender, age, ethnicity, religion and marital status) and current educational status (faculty and year of study) of Malaysian postgraduate students in UPM.
2. To determine the knowledge, sources of information, myths on sexual and reproductive health among Malaysian postgraduate students in UPM.
3. To determine the attitude, practices and religiosity on sexual and reproductive health among Malaysian postgraduate students in UPM.
4. To determine the relationship between socio-demographic characteristics (gender, age, ethnicity, religion and marital status), current educational status (faculty and year of study) and the knowledge, attitude and practice of sexual and reproductive health of Malaysian postgraduate students in UPM.
5. To determine the correlation between religiosity and knowledge, attitude and practice of sexual and reproductive health among Malaysian postgraduate students in UPM.

6. To determine the correlation between:
  - a) Knowledge and attitude related to sexual and reproductive health.
  - b) Knowledge and practice related to sexual and reproductive health.
  - c) Attitude and practice related to sexual and reproductive health.
7. To determine the associated factors with knowledge, attitude and practice related to sexual and reproductive health.

### **1.5 Research Hypothesis**

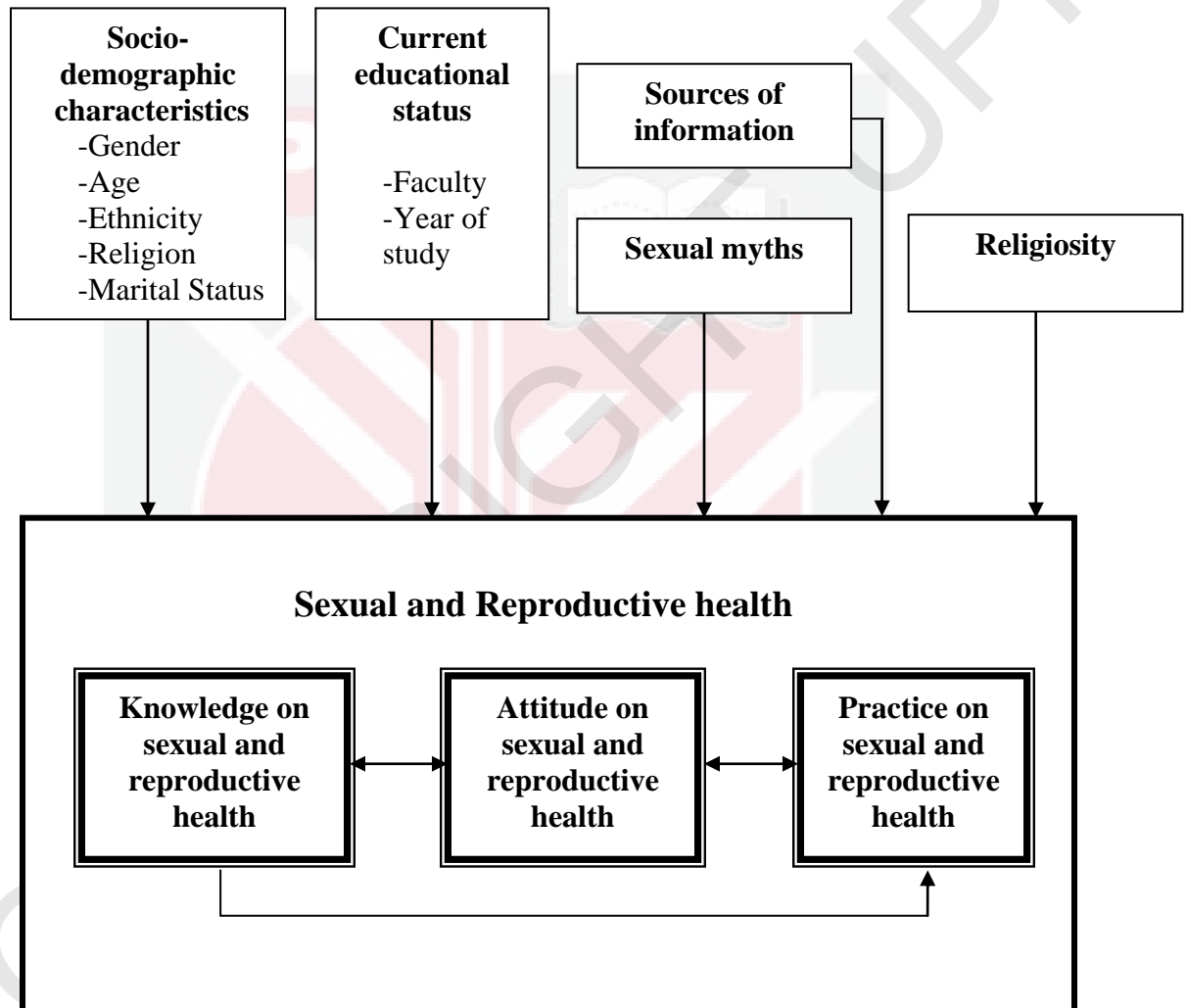
1. There is a significant relationship between socio-demographic characteristics (gender, age, ethnicity, religion, and marital status), current educational status (faculty and year of study) and the knowledge, attitude and practice about sexual and reproductive health among Malaysian postgraduate students in UPM.
2. There is a significant relationship between religiosity and knowledge, attitude and practice about sexual and reproductive health.
3. There is a significant relationship between knowledge and attitude about sexual and reproductive health.
4. There is a significant relationship between knowledge and practice about sexual and reproductive health.
5. There is a significant relationship between attitude and practice about sexual and reproductive health.
6. There is a significant associated factor with knowledge, attitude and practice about sexual and reproductive health.

### **1.6 Conceptual Framework**

This study aims to determine the knowledge, attitude and practice on sexual and reproductive health among Malaysian postgraduate students in UPM. As main outcome there is a relationship between socio-demographic characteristics and religious beliefs with knowledge, attitude and practice about sexual and reproductive health.

Figure 1.1 shows the conceptual framework for this study. In this model, the knowledge, attitude and practice about sexual and reproductive health of Malaysian postgraduate students in UPM as dependent variables are influenced by the independent variables related to socio-demographic characteristics (gender, age,

ethnicity, religion, marital status faculty and year of study) and religious beliefs. In addition, the figure outlines the demographic characteristics related to knowledge, attitude and practice of the respondents and inter-relationship between knowledge and attitude, knowledge and practice, attitude and practice about sexual and reproductive health.



**Figure1.1. The Conceptual Framework of Knowledge, Attitude and Practice Related to Sexual and Reproductive Health among Malaysian Postgraduate Students in UPM**

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