

Conference Paper

Nowledge, Awareness D Perception of Contraception among University Students in Malaysia

Fatimah S, RN, MSc^{1,3}, Razif D, MSc^{1,3}, Nur Hafizah M, RN¹, and Siti Munirah AW Sc²

¹Faculty of Health Sciences, Universiti Teknologi MARA, Selangor Branch, Puncak Alam Campus, 42300 Puncak Alam, Selangor, Malaysia,

²Faculty of Health Sciences, Universiti Teknologi MARA, Pulau Pinang Branch, Bertam Campus, 12300 Kepala Batas, Pulau Pinang, Malaysia

³Maternofetal and Embryology Research Group, Faculty of Medicine, Sungai Buloh Campus, Universiti Teknologi MARA (UiTM)

Abstract

Introduction: The Contraceptive Prevalence Rate (CPR) in Malaysia is the most vulnerable group. This is one of reason for the increased incidence of teenage pregnancies. University students in particular face new challenges in sexual health including contraceptive. **Method:** Cross-sectional, descriptive study conducted among university students at a public university in Malaysia. Using purposive sampling technique, 500 students participated in this study which was conducted over a period of four months from December 2016 to April 2017. Self-administered questionnaire consisted of 32 questions divided in four sections, socio-demographic profile, the knowledge, awareness and perception on contraception was used in this study. Descriptive analyses were executed for each variable. **Result:** In total, 500 students participated in the study, 86.6% were female and 11.4% male. Ages ranged from 18 to 28 years old and the mean age was 21 years old (SD: 1.57). Majority of them were among Malay ethnicity (97%); 1.2% of them were married; 70.4% was currently studying at degree level and only 38.2% were among non-sciences students. More than half of the participants ever heard of contraceptive method (67.2%). Mean knowledge score of the participants was 4.41 ± 1.33 while awareness score of participants was 20.64 ± 3.15 . More than half of participants disagreed or strongly disagreed (52.7%) that only women are responsible to use contraceptive methods while 54.2% of them agreed and strongly agreed that contraceptive pills do not guarantee 100% contraception. More than half of the participants' agreed and strongly agreed that health care providers must provide counselling on contraceptive methods (62.4%) and sex education including contraception should be introduced in early age (55%). **Conclusion:** The deficiency of contraceptive knowledge; and the importance and effectiveness of contraceptive measures call forth the university on the needs of comprehensive education and culturally-sensitive aimed at promoting healthy decision-making about family planning and STI prevention. It is important to understand the major obstacle in gaining knowledge and utilizing contraceptive among university students.

Keywords: awareness, contraceptive, knowledge, perception, university students

Corresponding Author:

Fatimah S, RN
fatimah2886@uitm.edu.my

Received: 22 September 2019

Accepted: 4 October 2019

Published: 10 October 2019

Publishing services provided by
Knowledge E

© Fatimah S, RN et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICHT 2019 Conference Committee.

OPEN ACCESS

1. Introduction

Contraceptives use has been prioritized as a key intervention in order to avoid the unintended pregnancies and consequent adverse outcomes [1]. In the developing countries, the proportion of young women reporting unintended pregnancy and unmet need for contraception remains high [2]. Approximately one-third of pregnancies in South and Southeast Asia were unintended because of decreasing in contraception use, contraceptive method failure and increase in unmet need for contraceptives [3]. In United States, of the 410 000 births by adolescents each year and more than 80% are unintended [4]. Meanwhile, in sub-Saharan African, almost half of 14 million unintended pregnancies occur among women aged 15-24 years occur every year [5]. Attitude about contraception and motivation to prevent from pregnant were associated factors of contraceptive use in young adult [5,6,7]. Currently 187 million unintended pregnancies including 60 million unplanned births and 105 million abortions has prevented by family planning services and supplies [8]. Previous research has proven that use of effective contraceptive methods would potentially prevent 90% of abortions, 20% pregnancy-related morbidity and (32%) of maternal death worldwide [8]. The Contraceptive Prevalence Rate (CPR) in Malaysia is the most vulnerable group. This is one of reason for the increased incidence of teenage pregnancies [9]. Awareness about contraception was high in European and American women and approximately 98% of them choose to use contraceptive pills [10]. The awareness of young people about contraceptives was high based on the various study that conducted in Ghana and the results showed that all aged between 15 and 19 years, 76% of female and 88% of males were aware of at least one modern family planning method [11]. Study showed that a quarter (25%) of the university students had unmet need for contraceptives although their level of awareness about contraceptives was high [2, 12]. The perception through unprotected intercourse by women who have higher risk of unintended pregnancy was because lack of thought and fear of side effects of contraceptive [13]. In Malaysia, shown that the average age of the first sexual intercourse was 15 years and the percentage of premarital sexual activity has increased over the years [14]. The unmet contraceptive demand is 25%. In a study of youth between the ages of 18-21, around 20% had sex with new partners without using any contraceptive methods [9]. Therefore, this study was aimed to assess the knowledge, awareness, perception of contraception among university students in Malaysia.

2. Methods

2.1. Study design

This is a cross-sectional, descriptive study conducted among university students at a public university in Malaysia. Using purposive sampling technique, 500 students participated in this study which was conducted over a period of four months from December 2016 to April 2017.

2.2. Ethical approval

The study was commenced following approval from the Institutional Research Ethic Committee (600-IRMI (5/1/6) and for ethical considerations, consent was obtained from the rector of the campus and individual participants, and the confidentiality of information was assured.

2.3. Data collection and sample

Self-administered questionnaire consisted of 32 questions divided in four sections, socio-demographic profile, the knowledge, awareness and perception on contraception.

2.4. Data analysis

The data were entered and analyzed using IBM Statistical Packages for Social Science (SPSS) for Window, version 23 and descriptive analyses were executed for each variable.

3. Results

3.1. Demography

In total, 500 students participated in the study. Of these participants, 86.6% were female and 11.4% male. Ages ranged from 18 to 28 years old and the mean age was 21 years old (SD: 1.57).

Majority of them were among Malay ethnicity (97%). About 1.2% of them were married, 70.4% was currently studying at degree level and only 38.2% were among non-sciences students.

All the demographic data are tabulated in Table 1.

TABLE 1: Demographics Characteristics of the Respondents (n=500).

Variables	Frequency	Percentage (%)
Age Mean: 21.05 (SD:1.57)		
Gender		
Female	443	88.6
Male	57	11.4
Marital Status		
Married	6	1.2
Single	494	98.8
Ethnic		
Malay	485	97.0
Others	15	3.0
Educational Level		
Diploma	148	29.6
Degree	352	70.4
Faculty		
Health Science	279	55.8
Non Health Science	191	38.2
Pharmacy	30	6.0

3.2. Knowledge, Attitude and Perception

More than half of the participants ever heard of contraceptive method (67.2%). Mean knowledge score of the participants was 4.41 ± 1.33 . About 79.6% know that the common side effects of contraceptive pills include weight gain and mood swing however only 52% of them answered incorrectly regarding the safe to have sex during the infertile period (Table 2).

Overall, awareness score of participants was 20.64 ± 3.15 . More than half of participants disagreed or strongly disagreed (52.7%) that only women are responsible to use contraceptive methods while 54.2% of them agreed and strongly agreed that contraceptive pills do not guarantee 100% contraception (Table 3).

More than half of the participants' agreed and strongly agreed that health care providers must provide counselling on contraceptive methods, mechanism of action, best time to use and possible side effects to all women (62.4%) and sex education including contraception should be introduced in early age (55%) refer to Table 4.

TABLE 2: Knowledge of Contraception among Undergraduate Students in A Public University (n=500).

No	Variable	Frequency (Percentage)	
		Correct	Incorrect
1	Have you ever heard of contraceptive method?	336 (67.2)	164 (32.8)
2	The risk of getting certain types of cancer in women can be reduced by birth control pills.	355 (71.0)	145 (29.0)
3	A woman will not be able to get pregnant for at least two months after she has stopped taking birth control pills	280 (56.0)	220 (44.0)
4	Male condoms can protect against sexually transmitted diseases.	327 (65.4)	173 (34.6)
5	Common side effects of contraceptive pills include weight gain and mood swing	398 (79.6)	102 (20.4)
6	It is safe to have sex during the infertile period	240 (48.0)	260 (52.0)
7	There is an increased risk of breast cancer in women taking estrogen-containing oral contraceptive	294 (58.8)	206 (41.2)
8	In order to get birth control pills, a woman must have a pelvic exam	309 (61.8)	191(38.2)

TABLE 3: Association between Knowledge with Demographic Characteristics.

Independent Variables	Knowledge		χ ²	sig-χ ²
	Poor	Good		
Faculty				
Science	61	248	12.96	0.02
Non-Science	65	127		
Heard knowledge				
No	60	104	15.05	0.01
Yes	66	270		

4. Discussion

In this study the number of participants ever heard of contraceptive was quite low compare to studies among university students conducted locally or internationally [15–22]. Knowledge and utilize of contraceptives participate a vital role in preventing various outcome that of failure to use contraceptives [22].

Mean knowledge score of the participants was 4.41 ± 1.33 . Similar In which indicate that the participants in this both study was just above the mean score.

This study revealed that the participants were knowledgeable about condoms and oral contraceptive pills and this similar with others [15–19].

Most of them knew that the common side effects of contraceptive pills include weight gain and mood swing and the risk of getting certain types of cancer in women can be reduced by birth control pills while less than half of them knew that the safe to

TABLE 4: Awareness of Contraception among Undergraduate Students in A Public University (n=500).

No	Variables	Frequency / Percentage					Mean (SD)
		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree	
1	Only women are responsible to use contraceptive method	28 (5.6)	47 (9.4)	163 (32.6)	136 (27.2)	126 (25.2)	3.57 (1.13)
2	Contraceptive methods bring more damage than benefit to health	33 (6.6)	96 (19.2)	249 (49.8)	92 (18.4)	30 (6.0)	2.98 (0.94)
3	Contraceptive methods can protect the health of family and society	49 (9.8)	137 (27.4)	237 (47.4)	65 (13.0)	12 (2.4)	2.71 (0.90)
4	The use of contraceptive methods in young people will increase the risk of infertility in the future	53 (10.6)	130 (26.0)	225 (45.0)	69 (13.8)	23 (4.6)	2.76 (0.97)
5	Contraceptive pills do not guarantee 100% contraception	101 (20.2)	170 (34.0)	163 (32.6)	48 (9.6)	18 (3.6)	2.42 (1.03)
6	Women's experiences of side effects linked to changes in contraception use that is, changing to a safer form of contraceptive	28(5.6)	132 (26.4)	302 (60.4)	33 (6.6)	5 (1.0)	2.71 (0.72)
7	Discussion about contraception with spouse is embarrassing	27 (5.4)	53 (10.6)	166 (33.2)	147 (29.4)	107 (21.4)	3.51 (1.10)

have sex during the infertile period. These findings were the same as reported. As expected, participants studying under the cluster of sciences study had higher knowledge as reported

Overall, awareness score of participants was 20.64 ± 3.15 , as low as study. More than half of participants disagreed or strongly disagreed (52.7%) that only women are responsible to use contraceptive methods while 54.2% of them agreed and strongly agreed that contraceptive pills do not guarantee 100% contraception [18, 20].

This study reveals 81.6% of the participants either had misconception or unsure that the use of contraception will increase the risk of infertility, the same as finding from study.

Result from both findings; knowledge and awareness regarding contraceptive among university students, indicates the needs of youth-friendly interventions towards disseminating specific contraceptive information and education that is culturally-sensitive including building skills for negotiating safer sexual behaviours as known from others study claimed that social-cultural factors as critical barriers to contraceptive use in young females [15].

TABLE 5: Perception of Contraception among Undergraduate Students in A Public University ($n=500$).

No	Statement	Frequency / Percentage					Mean (SD)
		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree	
1	According to Islamic teaching, the use of contraceptive methods is considered a permissible action	46 (9.2)	131 (26.2)	241 (48.2)	59 (11.8)	23 (4.6)	2.76 (0.94)
2	It is unnecessary to purchase contraceptives	26 (5.2)	100 (20.0)	220 (44.0)	126(25.2)	28 (5.6)	3.06 (0.94)
3	Courage is needed to purchase condoms from pharmacies, conventional shops or dispensaries	76 (15.2)	169 (33.8)	179 (35.8)	60 (12.0)	16 (3.2)	2.54 (0.99)
4	Using condoms will create less sexual pleasure during sexual intercourse	32 (6.4)	69 (13.8)	343 (68.6)	41 (8.2)	15 (3.0)	2.88 (0.76)
5	Change in male attitude that is, to participate in contraception, may increase contraceptive prevalence in some areas	25 (5.0)	91 (18.2)	349 (69.8)	30 (6.0)	5 (1.0)	2.80 (0.67)
6	Contraceptives may reduce fear of unplanned pregnancy and afford woman the freedom to enjoy the sexual relationship	59(11.8)	159 (31.8)	207 (41.4)	58 (11.6)	17 (3.4)	2.63 (0.95)
7	Contraceptives allow women to pursue higher education by delaying pregnancy and gain some measure of economic security	67(13.4)	184 (36.8)	182 (36.4)	52 (10.4)	15 (3.0)	2.53 (0.95)
8	It is complicated to use contraceptive methods	21(4.2)	81 (16.2)	289 (57.8)	90 (18.0)	19 (3.8)	3.01 (0.81)
9	Sex education including contraception should be introduced in early age	109(21.8)	166 (33.2)	160 (32.0)	45 (9.0)	20 (4.0)	2.40 (1.05)
10	Health care providers must provide counselling on contraceptive methods, mechanism of action, best time to use and possible side effects to all women	173(34.6)	139 (27.8)	142 (28.4)	26 (5.2)	20 (4.0)	2.16 (1.08)

University students took part in this study preferred health care providers in providing information and counselling on contraceptive as they believed that health professionals are well equipped with information concerning sexual health, and are believed by students to be non-judgemental and reliable sources to turn to for advice and help [21]. They also suggested the need for the mobilization and active involvement of physicians

and health care providers in providing contraception information to university students [20]. These are the future healthcare professionals and have an important role to play in improving public health [18].

5. Conclusion

This study revealed that the knowledge, awareness, and perception regarding contraceptive were worrying for this university. The deficiency of contraceptive knowledge; and the importance and effectiveness of contraceptive measures call forth the university on the needs of comprehensive education and culturally-sensitive aimed at promoting healthy decision-making about family planning and STI prevention

The need of transformation learning and accessible of the services for proper sexual and reproductive health practices are priority. It is important to understand the major obstacle in gaining knowledge and utilizing contraceptive among university students.

Declaration

This research was carried out in accordance with the regulations of Universiti Teknologi Mara (UiTM), Malaysia. Thank for UiTM Research Ethics Committee, Faculty of Health Sciences upon approval of this research with reference no. 600-IRMI (5/1/6). REC/387/16.

Acknowledgments

Authors would like to acknowledge the Director General of Health Malaysia for His permission to publish the article. We would also like to thank Universiti Teknologi MARA, all the professionals and health personnel for supporting this study.

Conflict of Interest

The authors have no conflict of interest to declare.

References

- [1] World Health Organization (2011). Facts on induced abortion worldwide. Geneva, Switzerland: Department of Reproductive Health and Research. WHO Document Production Services.

- [2] Akintade, O. L., Pengpid, S., & Peltzer, K. (2011). Awareness and use of and barriers to family planning services among female university students in Lesotho. *South African Journal of Obstetrics and Gynaecology*, 17(3), 72–78.
- [3] Hossain SMI, Khan M, Rahman M, Sebastian MP. (2005). Emergency contraceptive pills. South East Asia Regional Training Manual. New Delhi: Frontiers in Reproductive Health Program (FRONTIERS) of Population Council.
- [4] Finer, L. B., & Henshaw, S. K. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspectives on sexual and reproductive health*, 38(2), 90-96.
- [5] Hubacher, D., Ifigeneia, M. & McGinn, E. (2008) 'Unintended pregnancy in sub-Saharan Africa: Magnitude of the problem and potential role of contraceptive implants to alleviate it', *Contraception* 78, 73–78.
- [6] Bader V, Kelly PJ, Cheng A-L, Witt J. (2014). The role of previous contraception education and moral judgment in contraceptive use. *J Midwifery Womens Health*; 59 (4):447–51
- [7] Higgins JA, Popkin RA, Santelli JS. (2012). Pregnancy ambivalence and contraceptive use among young adults in the United States. *Perspect Sex Reprod Health*; 44(4):236–43.
- [8] Sonfield A, Hasstedt K, Gold RB. (2014). Moving forward: family planning in the era of health reform. New York: Guttmacher Institute
- [9] Mohamed N., and Kanagasabai S. (2014). An insight into low contraceptive prevalence in Malaysia and its probable consequences. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology* 3(3), 494.
- [10] Tweedie, I., & Witte, K. (2008). Ghana Youth Reproductive Health Survey Report, Accra, Ghana: Ghana Social Marketing Foundation
- [11] Orji, E. O., & Esimai, O. A. (2005). Sexual behaviour and contraceptive use among secondary school students in Ilesha South West Nigeria. *Journal of Obstetrics and Gynaecology*, 25(3), 269-272.
- [12] Nettleman MD, Chung H, Brewer J, Ayoola A, Reed PL. (2007). Reasons for unprotected intercourse: analysis of the PRAMS survey.
- [13] Lee L.K., Chen P.C., Lee K.K., and Kaur J. (2006). Premarital sexual intercourse among adolescent in Malaysia: a cross-sectional Malaysian school survey. *Singapore Medical Journal* 47(6): 476-481.
- [14] Rosliza AM, Majdah M. (2010). Male participation and sharing of responsibility in strengthening family planning activities in Malaysia. *Malaysian Journal of Public Health Medicine* 10(1): 23-27.

- [15] Henry N., Juliet N., Hassard S. and Fredrick E. M. (2016). Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female University students in Uganda: a cross-sectional survey. *BMC Women's Health* 16:6.
- [16] Sara H., Marie K.G., Gemzell D., Hannes O., and Birgitta E. (2013). Medical students' knowledge, attitudes and perceptions towards contraceptive use and counselling: a cross-sectional survey in Maharashtra, India. *BMJ Open*; 3:e003739. doi: 10.1136/bmjopen-2013-003739.
- [17] Marta R., Lúcia R., Margarida G. M., and José A. D. (2013). Nationwide survey of contraceptive and sexually transmitted infection knowledge, attitudes and skills of university students in Portugal. *International Journal of Clinical and Health Psychology* 13, 127–137.
- [18] Ramadan M. E., Muhammad U.K., Akram A., Akshaya B.S, Norny S.A., Shazia Q.J., Ammar I.A., and Hazrina A.H. (2015). Knowledge, awareness, and perception of contraception among senior pharmacy students in Malaysia: A pilot study. *Journal of Research in Pharmacy Practice* 4(2).
- [19] Somba M.J., Mbonile M., Obure J., and Mahande M.J. (2014). Sexual behaviour, contraceptive knowledge and use among female undergraduates' students of Muhimbili and Dar es Salaam Universities, Tanzania: a cross-sectional study. *BMC Women's Health* 14:94.
- [20] Hoquea M.E., Ntsipeb T., and Mokgatle N. (2013).. Awareness and practices of contraceptive use among university students in Botswana. *Journal of Social Aspects of HIV/AIDS*. 10(2):84.
- [21] Elkahi H.A., Abirizk I.G.Y., Hlais I.S. and Adib S.M. (2012). Health-care-seeking behaviour among university students in Lebanon. *Eastern Mediterranean Health Journal* 18(6): 598–606.
- [22] Makhaza, M., & Ige, K. D. (2014). Knowledge and Use of Contraceptives among Tertiary Education Students in South Africa. *Meditranean Journal of Social Science* 5(10): 500–510.