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Factors Influencing Condom Use for the Prevention of Pregnancy and HIV Infection among Teenagers In Kampangpeth Province, Thailand

Research Article

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Abstract

Despite convenience, availability, accessibility and affordability of condoms, a significant proportion of adolescents worldwide engage in unprotected sexual activities, leading to rising rates of new HIV infections and pregnancy. This study was conducted to determine factors influencing condom use for the prevention of HIV infection and pregnancy among secondary school students in Kampangpeth Province. Across-sectional design was conducted between February and March 2019 to select 183 samples by stratified random sampling. Data were collected using a questionnaire and analyzed using mean, frequencies, percentage, and regression analysis. Factors influencing condom use included knowledge of sexual education [OR = 1.26 (95%CI: 1.04 – 1.52), p = 0.017], self-efficacy to prevent pregnancy and HIV [OR = 1.10 (95%CI: 1.01 – 1.20), p = 0.027], curiosity to try sex [OR = 1.17 (95%CI: 1.04 – 1.31), p = 0.011], time spent with a boy/girlfriend [OR = 1.09 (95%CI: 0.85 – 1.00), p = 0.049], consumption of sexual media [OR = 1.08 (95%CI: 0.99 – 1.17), p = 0.048], good family care [OR = 7.89 (95%CI: 1.07 – 58.11), p = 0.043]. being male [OR = 5.26 (95%CI: 0.07 – 0.71), p = 0.014], and living with parents [OR = 3.42 (95% CI: 1.15 – 10.19), p = 0.027]. This study concluded that based on the factors influencing condom use to protect against HIV infection and pregnancy in adolescents, sexual education in secondary schools should be encouraged to increase sexual knowledge and family ties between parents and adolescents especially girls should also be strengthened.

Keywords: Condom use; Adolescents; Secondary School; HIV, Teenage Pregnancy.

Introduction

The most commonly used method of modern contraception among adolescents is condom [1, 2]. Convenience, availability, accessibility and affordability [3] maybe a great extent to explain the preference of the youths over other methods. As opposed to oral pills [4], a condom is effective in the prevention of both infections and unplanned pregnancy. However, a significant proportion of adolescents worldwide engage in unprotected sexual activities [5]. Consequently, the impacts such as rising rates of new HIV infections and teenage pregnancy has been well elaborated among this age group.

HIV/AIDS is the world's second leading cause of adolescent deaths and, regrettably, adolescent girls account for over two-thirds of the global new HIV infections [6]. Thailand alongside Indonesia, Viet Nam, China, Myanmar, and India accounted for over 90% of people living with HIV in the entire region [7]. Additionally, approximately 21 million girls below 20 years get pregnant annually; almost half of that is unintended. Of these, no fewer than 12 million pregnancies result in birth, contributing nearly 11% of the global births [8, 9]. Not only is adolescent pregnancy a public health concern in Thailand, but also the increasing rates of repeat birth [10]. As reported by a population and social research, Thailand is at the leading role in Asia for unintended teenage pregnancies [11]. It was estimated that more than 10% of Thai adolescent girls get pregnant yearly [12].

The increasing rates of new HIV/STDs infections and teenage pregnancy have been attributed to the consistently falling prevalence of contraceptive use in recent years [13]. It revealed that barely 60% of adolescents and youths consistently use a condom during the last sex [14]. The aim of this study, therefore, was to determine factors influencing condom use for the prevention of

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HIV infection and pregnancy among secondary school students. The results of this study can be utilized to set up a program for the prevention of pregnancy and HIV infection in adolescents.

Materials and Methods

Study Design and Subjects

A cross-sectional study was carried out among secondary school students in Kampangpeth Province between February and March 2019. A sample of 183 was determined using the estimation sample proportion. The study employed a stratified random sampling technique for the selection of the subjects. Only students aged 16 through 19 years were included in this study.

The Study Tool

A questionnaire was developed and validated prior to the data collection. It consisted of six parts; 1) socio-demographic characteristics, 2) condom use, 3) knowledge, 4) attitude, 5) perceived impact and 6) perceived self-efficacy. Both the content validity and the reliability of the questionnaire were evaluated. All questions with Item Objective Congruence (IOC) index of greater than 0.5 were metthe standard criteria of the validity test [15]. The multidimensional reliability tests yielded a Chronbach's alpha coefficient of 0.76, 0.86, 0.71 and 0.88 for knowledge, attitude, perceived impact, and perceived self-efficacy, respectively.

Data Collection and Analysis

Data were collected by self-administered questionnaire to the respondents andanalyzed usingthe Statistical Package for Social Sciencesprogram (SPSS®, version 20.0). Socio-demographic variables ofthe participants were analyzed using frequency (%) and mean (SD). A binary logistic regression was performed to determine factors influencing condom use. All analyses were performed at a 0.05 level of statistical significance.

Ethical Consideration

The research was approved by Naresuan University Institutional Review Board (IRB). Informed consent forms were obtained from participants of legal age, while parents/guardians of participants below the legal age provided assent forms. Data were treated with strict confidentiality.

Results

Socio-demographic Characteristics

More than half of the students were females (52.5%) with a grade point average below 3.00 (58.5%). Approximately 95% were between the ages of 17 and 18 years (mean 17.54 ± 0.60). More than half of their parents were married (54.6%). While 54.6% of the students lived together with both parents, 16.4% lived with either parent and 29% lived with friends, relatives etc. The vast majority received enough pocket money (89.6%) More than two-thirds (69.9%) were in a love relationship with approximately 80% reporting condom use during the most recent sexual experience (Table 1).

Factors influencing Condom Use

Factors from the multivariate analysis (Table 2.) were identified to be significantly associated with condom use. The results showed that an increase in knowledge by one score increases the probability of condom use 1.26 times [OR = 1.26 (95%CI: 1.04 – 1.52), p = 0.017]. An increase in self-efficacy to prevent pregnancy and HIV/AIDS by one score also increases the likelihood of condom use 1.10 times [OR = 1.10 (95%CI: 1.01-1.20), p = 0.027]. Additionally, probability of condom use increased by 1.17 times when students' curiosity to know and try sex increases by one score [OR = 1.17 (95%CI: 1.04-1.31), p = 0.011]. One score increase in time spent with a boy/girlfriend increases the possibility of condom use by 1.09 [OR = 1.09 (95% CI: 0.85 – 1.00), p = 0.049]. Similarly, an increase in the consumption of sexual media by one score increases the tendency to use condom by 1.08 [OR = 1.08 (95% CI: 0.99 – 1.17), p = 0.048]. Furthermore, students who received good family care were 1.32 times as likely to use condom than adolescents from poor family care background [OR = 7.89 (95%CI: 1.07-58.11), p = 0.043]. Males were 5.26 times more likely to use condom than females [OR = 5.26 (95% CI: 0.07-0.71), p = 0.014]. Students who live with their parents were 3.42 times as likely to use condom as those who live with friends [OR = 3.42 (95%CI: 1.15-10.19), p = 0.027].

Discussion

Our research has found some interesting findings of condom use among secondary school adolescents. The results suggest that higher knowledge of sexual education increases the possibility of condom use. This was consistent with preceding evidence among Thai vocational school students that reported increased condom use among students with higher knowledge of HIV, STD and teenage pregnancy [16]. Undoubtedly, sufficient knowledge of sexual education and HIV/AID is an indispensable influencer of condom use for the prevention of HIV infection and pregnancy among teenagers. This might be because, when adolescents are adequately informed, they become more capable of making healthy sexual decisions such as the effective use of condom. Previous literature has reported varying levels of knowledge among adolescents ranging from low levels in the Democratic Republic of Congo (DRC) and Nigeria [17] to adequate levels in other parts of the world [18, 19]. Additionally, it has been observed that adolescent with high self-efficacy in preventing pregnancy and HIV infections were more likely to use condom. This was also consistent with a documented body of evidence which postulated that delays in sexual initiation and practice of safe sex are more likely among teenagers with high self-efficacy than those with low self-efficacy [20-22].

Teenagers who were curious to experience intercourse were more likely to use condom. This high condom use tendencies might have been as a result of their curiosity about sex which could lead them to explore more information about safe sex practice that may not have been available to incurious adolescents. Similarly, teenagers who frequently consumed sexual content from the media appeared more likely to use condom. Advancement in technology has led to the proliferation of many sexual media (electronic or print) outlets through which both harmful and beneficial content can be released to the public. It is possible that teenagers who exploit such media may have gained adequate

Table 1. Socio-demographic characteristics.

Characteristics	Number (n = 183)	Percentage
Gender		
Male	87	47.5
Female	96	52.5
Age		
16 years	8	4.4
17 years	71	38.8
18 years	102	55.7
19 years	2	1.1
$\overline{X}$ = 17.54, SD = 0.60, Min = 16, Max = 19		
Grade point average		
≥ 3.00	76	41.5
< 3.00	107	58.5
$\overline{X}$ = 2.76, SD = 0.58, Min = 1.14, Max = 4.00		
Parental marital status		
Married (living together)	100	54.6
Separated (living apart)	83	45.4
Student living with		
Father and mother	100	54.6
Father or mother	30	16.4
Others (Friends, Relationship etc.)	53	29.0
Pocket money to school		
Enough	164	89.6
Not enough	19	10.4
Having a boy/girlfriend		
Yes	128	69.9
No	55	30.1
Condom use at last sexual intercourse		
Yes	147	80.3
No	36	19.7

Table 2. Factors influencing condom use (Multivariate logistic regression).

Variables	Adj. OR	95% CI		p-value
		Lower	Upper	
Knowledge about sexual education and HIV/AIDS	1.26	1.04	1.52	.017
Attitude about pregnancy and HIV/AIDS prevention	.97	.89	1.07	.564
Value about sex	.95	.84	1.07	.412
Perceived impact of pregnancy and HIV/AIDS	1.02	.89	1.16	.791
Perceived self-efficacy toward pregnancy and HIV/AIDS prevention	1.10	1.01	1.20	.027
Curiosity to know and try	1.17	1.04	1.31	.011
Self-value	1.02	.92	1.14	.691
Frequency of sexual media consumption	1.08	.99	1.17	.048
Frequencyof social media use	1.13	.98	1.30	.103
Frequency of entertainment visit	1.06	.95	1.19	.306
Family caring (reference = Not good)	1.32	.98	1.76	.043
Family Relationship	1.03	.92	1.09	.953
Frequency of family suggestion	.98	.92	1.04	.422
Average time spend with boy/girlfriend	1.09	.85	1.00	.049
Alcohol drinking (reference = No)	2.04	.40	10.47	.395
Smoking cessation(reference = No)	.50	.17	1.52	.223
Have Boy/girlfriend(reference = No)	11.21	.30	418.22	.191
Male(reference =Female)	5.26	.05	.71	.014
Not enough money to school(reference = Enough)	4.13	.70	24.42	.118
Grade point average <3.00 (reference = ≥ 3.00)	2.03	.78	5.28	.148
Living with father and mother(reference = Friend)	3.42	1.15	10.19	.027

knowledge concerning the importance and benefits of using a condom during sex. In addition, they may have been made more awareness of their vulnerability to HIV and unwanted pregnancy in unprotected sexual encounters.

While teenagers from a good caring family background were more likely to use condom than their counterparts from poorly caring families, those who live with their parents were equally more likely to use condom. Not surprisingly, it has been opined that living with both parents protects teenagers from sexual intercourse [23], possibly because of proper parental monitoring and guidance. Evidence has also suggested that family connectedness increases parent-adolescent communication regarding sex and delays teenage sexual onset [24]. This communication could develop adolescent negotiation skills in sexual decision making and empower them to practice safe sex.

As compared to female teenagers, males were exceedingly more likely to use condom. This aligns with piling evidence from both Asia and Africa [25-27]. This may not be unconnected to the fact that male condom is more readily accessible than female condoms and, on the part of female adolescents, skepticism to carry condoms may possibly further explain the observed difference. The more time spent with a boy/girlfriend, the higher the probability of using a condom. This could be valid because spending a considerable amount of time with a boy/girlfriend may lead to having sexual intercourse multiple times. This frequent sex may instill in their mind the fear of pregnancy, thus may opt to use condom to prevent it.

Conclusion

This study concluded that several factors can predict adolescent condom use to protect against HIV infection and pregnancy. Higher sexual education knowledge, perceived self-efficacy, curiosity to try, consumption of sexual media, family care, time spent with boy/girlfriend, being male and living with parents were the factors influencing condom use. Therefore, sexual education in secondary schools should be encouraged and family ties between parents and adolescents especially girls should be strengthened.

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