

THE ASSOCIATION BETWEEN KNOWLEDGE ON SEXUAL AND REPRODUCTIVE HEALTH AND ATTITUDE TOWARDS PORNOGRAPHY AMONG YOUTH IN THE TECHNICAL AND VOCATIONAL TRAINING (TVET) CENTRES IN MALAYSIA

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ABSTRACT

With technology advancement and increase accessibilities to gadgets, pornography exposure has been seen rampant among youth. Multiple studies have proven the negative effects of pornography exposure especially pertaining to risky sexual behaviours. Commission of effective sexual and reproductive health (SRH) education is known to be a protective factors for risky sexual behaviours, however, little are known whether it contributes to pornography attitudes among youth. This study aims to determine differences of SRH knowledge and pornography attitudes among youth subsequently investigate association between level of SRH knowledge and pornography attitudes among youth in TVET Centres in Malaysia. This is a cross sectional study carried out in August 2021 to March 2022 involving 344 students of eight Technical and Vocational Education Training (TVET) Centres in Malaysia. Study tools used are validated fifteen (15) items SRH knowledge and forty-one (41) items PORQUE Questionnaire assessing pornography attitudes which assess five domains of pornography attitudes. Survey was done through online and physical self-administered questionnaire. Descriptive analysis, means comparison and correlation were carried out to test research hypothesis. Finding from this study is SRH knowledge are low among male (mean score=5.93) and Malay ethnicity (mean score=6.1) and those who denies SRH education exposure before (mean score=5.75). Male respondents has more permissive pornography attitudes compared to female and those with SRH education exposure has better perception on negative impact of pornography attitudes and perception on factors contributing to pornography. Respondents who obeys religious practices and does not involved in risky social behaviours has more non-permissive pornography attitudes. Meanwhile, higher SRH knowledge is associated with more permissive perception towards pornography and inversely associated with perception on factors affecting pornography however it is of weak effect. As a conclusion, personal background factors identified to be associated with permissive pornography attitudes serve as a guideline on targeting effective SRH education provision in changing pornography attitudes among youth. Involvement of youth in risky social behaviours and pornography exposure has an effect on permissive pornography attitudes. Implementation of SRH education towards high-risk groups is warranted to change their attitudes towards pornography and subsequently promoting positive sexual and reproductive health practices.

Keywords: SRH knowledge, pornography attitudes, youth, sexual education

INTRODUCTION

Pornography use have been a worrying issue as it can lead to multiple negative consequences in terms of sexual attitudes and practices among youth (Peter & Valkenburg, 2016) which is described among those aged 15 to 24 years old (WHO, 1986). Studies have shown that exposure to pornographic materials have significant effects on permissive sexual attitudes, early age initiation of sexual activity and risk of addiction to pornographic materials whereby they lack self-control over pornographic use (Koletic, 2017). Pornography is defined as sexually explicit contents of various sources and delivery method in intention to sexually stimulate the viewers (Peter & Valkenburg, 2016). Meanwhile pornography attitude is define as perceptions towards pornography materials and this could be measured in broad perspectives depending on tools used (Rahman et al., 2020).

Most studies regarding pornography use among youth investigated differentials in socio-demographic as contributing factors of youth who are exposed to pornography and other sexual risky behaviours (Awaluddin et al., 2015; Azmawati et al., 2017; Zakaria et al., 2020) however study regarding youth attitudes towards pornography is still scarce. From studies, it is found that non-permissive or negative pornography attitudes has been found to be more in female of younger age group compared to male of older age group (Muhamad et al., 2021). Other than socio-demographic factors, we need to explore more on factors which could be associated with non-permissive pornography attitudes such as sexual and reproductive health knowledge as it is practical to be implemented for intervention to prevent youth accessing pornography.

Studies has shown that SRH knowledge is one of the protective factors for risky sexual behaviours such as premarital sex (Hassan et al., 2016) and UNESCO has acknowledge that effective SRH knowledge can contributes to building a positive individuals by building resilient and ability to make the correct decision regarding SRH (UNESCO, 2018). Despite numerous initiatives to disseminate SRH education, level of SRH knowledge among youth in Malaysia is still lacking (NPFDB, 2016).

Up to date, there is no study yet that has provided evidence whether level of SRH knowledge has any influence on pornography attitudes among youth. Therefore this study aims to explore differences of SRH knowledge and pornography attitudes among youth and to investigate the association between different levels of SRH knowledge with pornography attitudes among youth in TVET Centres in Malaysia. Youths who are enrolled in TVET are usually of lower socio-economic status and educational achievement and they are prepared for technical driven career. In our study, we use a cross-sectional design survey of students aged 18 to 24 years old in Technical and Vocational Education and Training Centres (TVET) in Malaysia to address the populations of high risk youth in Malaysia.

METHODOLOGY

Study Design

This study was a cross sectional survey that was conducted in August 2021 to March 2022. Data were collected using two techniques, namely, self-administered questionnaires through online survey form using REDCap platform which was conducted starting on October 2021 until December 2021 and face to face data collection using physical self-administered questionnaires form on March 2022. This study was done on students of eight Technical and Vocational Education and Training (TVET) Centres which is under the jurisdiction of Ministry of Youth and Sports (MOYS) Malaysia.

For online survey, sampling was done through stratified random sampling across 5 regions in Malaysia which is Northern, East Coast, Central, Southern and East Malaysia. A total of five TVET Centres were involved in the online survey sampling. They were TVET Centre in Jitra, Kedah (Northern Region); Temerloh, Pahang (East Coast Region); Sepang, Selangor (Central Region); Bandar Penawar, Johor (Southern Region); and Kinarut, Sabah (East Malaysia Region). For physical data collection, researcher went to three TVET Centres in Selangor which are located in Dusun Tua, Peretak and Kuala Langat.

Study population included in this study are students age between 18 to 24 years old, Malaysian citizenship, understand Malay language and are enrolling students during data collection period. From online survey form, two hundred forty five (245) students has responded and one hundred ninety three (193) has completed the online survey, however only one hundred ninety one (191) met the inclusion criteria and included for data process. Meanwhile for physical survey form, one hundred sixty (160) were collected however only one hundred fifty three (153) survey form were completed, met the inclusion criteria and was included for data processing. In total, there were three hundred forty four (344) students have completed the survey form and included in this study which is appropriate with the sample size calculations.

Study Tools

The study tools consists of three sections. The first section is the measurement of socio-demographic characteristics consists of age, gender, religion and race and personal background on family relationship, religious practices, risky social behaviour, premarital sex, exposure to pornography in past one month. The choices of answers for the personal background are "Yes", "No" and "Not sure". The option of "Not sure" is given due to the sensitivity issue of the questions which asked regarding risky social behaviours, premarital sexual practices, exposure to pornography, and practices of religious command.

The second section is forty one (41) items questions related to pornography attitudes adapted and simplified from the PORQUE Questionnaire and assess 5 domains, which are non-permissive feelings toward pornography materials (8 items), perception of impact of pornography use (11 items), perception of factors that contribute to pornography exposure (11 items), permissive feelings toward pornography (3 items), and permissive perception toward pornography materials (8 items), The answer is in Likert scale from 1 to 5. This questions were validated using two part validation process, namely Explanatory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) and both has shown good psychometric value with Cronbach's alpha ranging 0.904 – 0.929 (Rahman et al., 2020).

The third section is fifteen (15) items questions related to knowledge on sexual and reproductive health and with answer "True", "False" and "Don't know". The questions are adapted from the study conducted in East Malaysia in 2015 (Awang et al., 2019; Hassan et al., 2016), which is validated, and the Cronbach's alpha for all items is 0.761.

Data Interpretation

Socio-demographic data and personal background of the subject were tabulated in descriptive frequency manner. For personal background on SRH such as ever had SRHE exposure, ever had pornography exposure and ever had premarital sex were categorized into yes, no and unsure depending on their responds. For risky sexual behaviours, respondents were categorized into those who have ever said yes to one of the following risky social behaviours, namely: smoking, abused illegal drugs, involved in illegal race or masturbation and those who denied all risky social behaviours.

For SRH knowledge section, a correct response was given a score of one, and an incorrect or 'don't know' was scored zero. The range of score for this section is 0 to 15. Attitudes on pornography are categorised into 5 domains and each domains will follows the Likert's scale scoring system from 1=strongly disagree, 2=disagree, 3=unsure, 4=agree, 5=strongly agree. Higher score indicates non-permissive attitude towards pornography for Domain 1-Non permissive feeling towards pornography materials, Domain 2-Perception on impact of pornography use and Domain 3-Perception on factors contributed to pornography exposure whereas higher score indicates permissive attitude towards pornography for Domain 4-Permissive feeling towards pornography materials and Domain 5-Permissive perception towards pornography materials (Muhamad et al., 2021; Rahman et al., 2020).

Sociodemographic factors were categorized into groups, which were not normally distributed. Therefore for analysis of data, to compare the means of SRH knowledge across different sociodemographic factors and personal background of students, we used two independent sample U Mann Whitney Test for variable of two sample and Kruskal Wallis Test for variable with more than two sample. Meanwhile to investigate the relationship between SRH knowledge and pornography attitudes, Spearman correlation if used because the data is not normally distributed. Effects will be reported as correlation coefficients (r). A correlation coefficient (r) of 0.10 was defined as of small effect, 0.30 medium effect and 0.50 large effect. The p-value for significant is $p < 0.05$ for all the result.

ETHICAL CONSIDERATION

This study was subject to for ethical approval by the University of Malaya Research Ethic Committee (Reference Number: UM.TNC2/UMREC_1483) and permissions from Ministry of Youth and Sports through Directors of selected TVET Centres

(Reference Number: KBS.500-7/1/2 Jld.6 (43)). All participants gave their consent voluntarily and the confidentiality of the data was strictly maintained. This research was funded by researcher and there were no conflict of interest.

RESULTS

Differences of SRH Knowledge and Pornography Attitudes among TVET Students

The total samples (344 unmarried youth) consisted of 201 (58.4%) males and 143 (41.6%) females. In terms of age, majority of respondents are aged between 18 to 20 years old. There were 124 (36.0%) respondents aged 18, 111 (32.3%) respondents aged 19 and 67 (19.5%) respondents aged 20 years old. Respondents aged 21 to 24 years old accounts for 42 (12.1%) respondents. Majority of respondents were Malays with a total of 280 (81.4%), followed by Others, Chinese and Indians with 32 (9.3%), 20 (5.8%) and 12(3.5%) respondents respectively.

Table 1 illustrates details on personal background and comparisons on scores of SRH knowledge and five domains of pornography attitudes. Out of 344 respondents, 121 (35.1%) respondents admits of having had SRH education exposure before whether through formal or informal education system, 144 (41.9%) are not sure meanwhile 79 (23.0%) respondents admits never been exposed to SRH education before. Majority of the respondents (98.8%) has good relationship with their parents and 80.5% (277 respondents) admits to obey religious practices most of the time. Those who have ever involved in risky social behaviors, either smoking, abused illegal drugs, involved in illegal race or masturbation were 136 (39.5%) of the respondents meanwhile 208 (60.5%) were never involved in risky social behaviours.

There were only two (0.6%) respondents admits to have had premarital sex meanwhile ten (2.9%) has answered 'not sure' in the survey. There were 91 (26.5%) respondents admits to ever read or watch pornography materials, 78 (22.7%) answered 'not sure' and 175 (50.8%) respondents denied ever read or watch pornographic materials. As the issue were sensitive, this might be the reason for under reporting by the respondents even though anonymity of respondents were informed. If we were to combine those who ever had exposure to pornography and those who are not sure, we would get 49.2% which is comparable with findings in 2014 in MPFS-5 whereby 42.8% of youth age 18 to 24 years old admits to have ever been exposed to pornography.

As for the SRH knowledge, overall mean score were 6.26 (SD=2.9). The SRH knowledge varied significantly by gender whereby male has score lower compared to female and ethnicity whereby Malay scored lower compared to other race. Respondents who had SRH education exposure before has scored significantly higher (median=8) compared to those who have never (median=6) and not sure of SRHE exposure before (median=6). Those who have ever read or watch pornography also scored significantly higher (median=8) compared to those who answered no (median=7) or not sure (median=6). Otherwise, there were no significant difference in SRH knowledge level among respondents in age groups and other personal background aspects.

Meanwhile for pornography attitudes, male respondents significantly scored higher in permissive feelings (median=9) and permissive perception towards pornography (median=17) compared to female respondents. They also scored significantly lower in non-permissive feelings towards pornography (median=29) and perception on impact of pornography (median=41). However, in terms of ethnicity, Malay scored significantly higher compared to other race in non-permissive feelings towards pornography and this is also reciprocate in permissive perception towards pornography domain whereby Malay scored significantly lower compared to other race. Additionally, they also scored significantly higher in perception on factors contributing to pornography.

In terms of personal background of respondents, those who have never had SRHE exposure significantly scored lower (median=41) in perception on impact of pornography compared to those who had SRHE exposure and answered not sure (median=44, 44). Respondents who have ever had SRHE exposure also scored significantly lowest in permissive perception towards pornography (median=13) and highest in perception on factors contributing to pornography (median=47). Aside from that, religious aspects also has some roles in difference of scores in pornography attitudes. This can be seen in respondents who admitted they obey to religious practices most of the time, whereby they scored highest in non-permissive feelings towards pornography (median=31) compared to those who answered no and not sure (median=25, 25). This is also illustrated in permissive feelings towards pornography domain whereby respondents who answered no to the question on religious practices scored highest (median=11).

Table 1: Socio-demographic characteristics, and mean total scores of SRH knowledge and pornography attitudes

	Total N = 344		SRH Knowledge Score		Non-permissive feelings towards pornography		Permissive feelings towards pornography		Perception on impact of pornography		Permissive perception towards pornography		Perception on factors contributing to pornography	
			Range 0 - 15		Range 8 - 40		Range 3 - 15		Range 11 - 55		Range 8 - 40		Range 11 - 55	
	n	%	Mean / Median (SD)	p value	Mean / Median (SD)	p value	Mean / Median (SD)	p value	Mean / Median (SD)	p value	Mean / Median (SD)	p value	Mean / Median (SD)	p value
Overall	344	100	6.26/7 (2.9)		29.24/30 (5.9)		7.03/7 (2.88)		43.29/44 (9.37)		15.94/16 (6.48)		44.71/44 (7.01)	
Age*														
• 18 – 20	302	87.8	6.27/6 (2.9)	0.595	29.05/30 (5.96)	0.113	7.07/7 (2.75)	0.218	43.34/44 (9.17)	0.774	15.84/16 (6.25)	0.866	44.55/44 (6.99)	0.187
• 21 – 24	42	12.2	6.14/7 (3.19)		30.64/32 (5.27)		6.79/6 (3.69)		42.93/44 (10.77)		16.64/16 (7.96)		45.83/44 (7.07)	
Gender*														
• Male	201	58.4	5.93/6 (2.83)	0.006	28.15/29 (5.21)	<0.001	8.01/9 (2.51)	<0.001	41.15/41 (9.85)	<0.001	17.9/17 (6.12)	<0.001	43.8/44 (7.46)	0.058
• Female	143	41.6	6.72/7 (3.01)		30.77/32 (6.46)		5.66/6 (2.81)		46.3/44 (7.73)		13.19/10 (5.97)		45.99/46 (6.11)	
Race*														
• Malay	280	81.4	6.1/6 (2.84)	0.026	29.61/30.5 (5.61)	0.005	7.08/7 (2.98)	0.473	43.62/44 (9.33)	0.215	15.54/16 (6.33)	0.017	45.37/44 (6.24)	0.006
• Others	64	18.6	6.94/7.5 (3.22)		27.64/28.5 (6.84)		6.84/7 (2.37)		41.86/42.5 (9.46)		17.7/19 (6.87)		41.83/42 (9.18)	

Table 1, continued.

Ever had SRHE Exposure**														
• Yes	121	35.1	7.37/8 (2.68)		28.57/29 (5.46)		6.88/8 (2.41)		44.65/44 (8.66)		14.61/13 (5.78)		46.12/47 (6.74)	
• Never	79	23.0	5.75/6 (3.23)	<0.001	28.81/29 (6.29)	0.091	7.05/6 (3.53)	0.863	40.78/41 (8.64)	0.001	15.38/16 (6.51)	0.003	44.01/43 (6.82)	0.003
• Not sure	144	41.9	5.6/6 (2.69)		30.04/30 (5.97)		7.16/7 (2.86)		43.52/44 (10.08)		17.37/17 (6.77)		43.9/43 (7.18)	
Relationship with parents*														
• Good	340	98.8	6.26/7 (2.95)		29.19/30 (5.9)		7.07/7 (2.87)		43.22/44 (9.38)		15.99/16 (6.5)		44.61/44 (6.99)	
• Not sure	4	1.2	8.25/8.5 (1.7)	0.110	28.5/27 (4.5)	0.694	7.75/7.5 (1.7)	0.632	47.75/48 (7.8)	0.465	15.5/14.5 (3.10)	0.913	48.5/50.5 (5.8)	0.292
Obey to religious practices most of the time**														
• Yes	277	80.5	6.06/7 (3.10)		29.93/31 (5.71)		7.22/8 (2.88)		44.42/44 (9.81)		15.99/16 (6.58)		45.24/44 (7.31)	
• No	5	1.5	7.8/8 (2.04)	0.086	26/25 (6.28)	<0.001	10/11 (3.31)	0.003	43.6/51 (12.74)	<0.001	16.8/16 (4.76)	0.801	44.2/47 (14.37)	0.001
• Not sure	62	18.0	7/6 (1.91)		26.44/25 (5.88)		5.98/7 (2.55)		38.21/41 (3.84)		15.65/16 (6.21)		42.39/43 (3.69)	
Ever involved in risky social behaviour*														
• No	208	60.5	6.05/6 (2.76)		30.09/31 (6.21)		6.67/7 (2.98)		44.18/44 (10.55)		14.62/14 (6.43)		44.98/44 (7.83)	
• Yes	136	39.5	6.58/7 (3.16)	0.174	27.94/27.5 (5.14)	<0.001	7.6/7 (2.63)	0.002	41.93/41 (7.02)	<0.001	17.96/17 (6.03)	<0.001	44.3/44 (5.51)	0.259

Table 1, continued.

Ever had premarital sex**														
• Yes	2	0.6	12/12 (2.82)		28./28.5 (2.12)		12/12 (1.41)		29.5/29.5 (0.70)		27/27 (1.41)		37.5/37.5 (3.53)	
• No	332	96.5	6.22/7 (2.89)	0.066	29.19/30 (5.95)	0.361	6.89/7 (2.78)	0.361	43.76/44 (8.93)	<0.001	15.6/16 (6.14)	<0.001	44.97/44 (6.93)	0.001
• Not sure	10	2.9	6.1/5 (2.42)		31.9/30.5 (2.88)		11.6/11 (2.50)		29.9/36 (13.42)		25.8/25 (9.18)		37.1/37.5 (5.66)	
Ever read/ watch pornography materials**														
• Yes	91	26.5	7.01/8 (2.27)		27.21/26 (4.95)		7.05/7 (2.56)		41.51/41 (4.31)		19.16/20 (5.55)		42.87/43 (5.18)	
• No	175	50.8	6.11/7 (3.22)	0.008	30.42/31 (6.34)	<0.001	6.49/6 (2.99)	<0.001	45.02/44 (10.11)	<0.001	13.37/12 (5.73)	<0.001	46.01/46 (7.05)	<0.001
• Not sure	78	22.7	5.71/6 (2.78)		28.96/30 (5.23)		8.24/9 (2.62)		41.49/40 (11.15)		17.95/16 (6.73)		43.95/43 (8.16)	

*Two independent sample U Mann Whitney Test

**Kruskal Wallis Test

Table 2: Spearman correlation coefficients (r) showing the associations between scores of SRH knowledge and pornography attitudes (N=344)

Mean Total Score	Pornography attitudes score				
	Non permissive feeling towards pornography	Permissive feeling towards pornography	Perception on impact of pornography	Permissive perception towards pornography	Perception on factors contributed to pornography
SRH knowledge score	0.004	0.068	-0.066	0.110*	-0.108*

* Correlation is significant at the 0.05 level (2-tailed).

Respondents who admits to ever being involved in risky social behaviour scored lower in non-permissive feelings towards pornography (median=27) compared to those who never involved in social risky behaviour (median=31). They also scored higher in permissive feelings towards pornography and permissive perceptions towards pornography which means they have more permissive pornography attitudes to those who never involved in risky social behaviours. Apart from that, respondents who have never involved in risky sexual behaviours also scored higher in perception on impact of pornography (median=44) compared to those who have ever had (median=41).

Respondents who denied premarital sex has scored significantly higher on domains perception on impact of pornography (median=44) and perception on factors contributing to pornography (median=44) compared to those who admits to ever had premarital sex (median=29.5, 37.5) and those who answered not sure (median=36, 37.5). This results also reciprocate in permissive perception towards pornography domain whereby those who never had premarital sex scored lowest (median=16) compared to those who have ever had premarital sex (median=27) and those who answered not sure (median=25).

Respondents who denied pornography exposure has scored the highest in non-permissive feelings towards pornography, perception on impact of pornography and perception on factors contributing to pornography. They also scored lowest in permissive feelings towards pornography and permissive perception towards pornography. This indicated that respondents who are not exposed to pornography has more non-permissive pornography attitudes compared to those who have ever been exposed and answered not sure for exposure of pornography.

Association between SRH Knowledge and Pornography Attitudes among TVET Students

Table 2 illustrates the association between SRH knowledge score and pornography attitudes in each of five domains. The Spearman correlation coefficient shows that SRH knowledge score are directly correlated with permissive perception towards pornography ($r=0.110$, $P<0.05$) and inversely correlated with perception on factors contributed to pornography ($r=-0.108$, $P<0.05$). The correlation coefficient of 0.1 suggests a weak effect. Otherwise there is no significant correlation of SRH knowledge with other three domains of pornography attitudes which are non-permissive feelings towards pornography, permissive feelings towards pornography and perception of impact of pornography.

DISCUSSIONS

Data gathered from the study has pointed out few important findings. Firstly, there were almost half of respondents who were not aware of SRH education provision in the education system in Malaysia. This shows that there were still barriers in communication of SRH literacy programs in Malaysia. SRH education has been implemented in formal and informal education system through the provision of PEERS Module by the Ministry of Education Malaysia and also by other agencies such as Ministry of Health Malaysia, National Population and Family Development Board and also non-governmental agencies like Federation of Reproductive Health Associations, Malaysia. This could be due to the difference in teaching method among teachers and educators and limitations in delivery of SRH knowledge which purely depends on the educators' initiatives. A qualitative study (Fazli Khalaf et al., 2014) done among Malaysian professionals involved in SRH education and services provisions also addressed on accountability of school-based or curriculum based sexuality education is not easily accomplished in Malaysia. Some of the explanations are because school system has adapted to an established procedure that may resist changes which may become a barrier for educators to teach SRH in classes. Aside from that, acceptability of multicultural society also known as one of the barrier to sexuality education. This data could help in designing SRH knowledge delivery services which is more transparent and beneficial for adolescents. Initiatives for delivery of SRH knowledge should be made known to the communities so that relevant agencies and stakeholders has a chance to collaborate in sharing resource to provide for SRH education programs.

Data from the study also found out that difference in gender and race has affect towards SRH literacy. Female respondents has higher SRH knowledge compared to male. This is supported by few studies (Rahimi-Naghani et al., 2016; Raja Ismail & Minhat, 2019; Thin Zaw et al., 2013) comparing SRH knowledge between women and men and found out that women has better SRH knowledge compared to men. Furthermore this study also found out that being male and Malay race is associated factors for lower SRH knowledge. A study has also proved that being a Malay Muslim ethnicity was associated significantly with lower knowledge scores and risky social behaviors (Wong, 2012). This has provide evidence on which target group that the delivery of SRH knowledge should be emphasize on. Perhaps SRH education can be tailored to suit male adolescents better and uses culturally adaptable approach and contents.

SRH knowledge also corresponds significantly for those who aware that they have been exposed to SRH education programs previously. This indicates that SRH education programs are crucial as determining factors of SRH knowledge level among adolescents. A systematic review (Desrosiers et al., 2020) also mentioned on significant intervention effects for improving SRH knowledge especially if the programs was made in combination with health and psychosocial curriculum as well as livelihood training components. Additionally, from this study we able to demonstrate possible sources of SRH education among adolescents. The finding shows that SRH knowledge also significantly higher among those who have ever read or watch pornographic materials. In a study done among college students (Li & Davey, 1996), pornographic materials is considered as one of the source for sexuality knowledge. However many studies have also proved the negative effect of pornography of sexual attitudes of adolescents (Bogale & Seme, 2014; Malamuth & Huppini, 2005; Peter & Valkenburg, 2016).

This study were able to capture the risky behaviors prevalence. Among 344 respondents, it is found that 39.5% were involved in risky social behaviors either smoking, abused illegal drugs, involved in illegal race or masturbation. This is also shown in few studies among Malaysian adolescents whereby 19.5% Malaysian adolescents (NPFDB, 2016) were found to ever had masturbation before, 1 in 10 adolescents has ever smokes (MOH, 2018). From this data we can see that risky social behaviors is still prevalent among Malaysian adolescents and warrant immediate action to curb it. Premarital sex is a sensitive issue which were not openly reported especially in the Muslim countries (Ghaffari et al., 2016), due to the nature of the question, this study were able to capture those who admits for premarital sex and those who answered not sure. In total, there were only twelve (3.4%) out of 344 respondents who answered yes or unsure to premarital sex which is still an alarming, although it is much lower than

national data considering prevalence of premarital sex among Malaysian adolescents in the year 2017 were 7.3% (MOH, 2018). Data on respondents who were exposed to pornography is also supported with national data on 2014 whereby it is found out that 35.3% adolescents have ever been exposed to pornography (NPFDB, 2016). This shows that pornography viewing among adolescents is still at rise and initiatives should be done to control this behavior.

As for pornography attitudes, gender and race also proved to be one of the differentials factors. This study has found out that male gender are more permissive towards pornography compared to female gender. This is also supported in previous study done using the same PORQUE survey (Muhamad et al., 2021). Meanwhile for ethnicity, it is found that Malay has a tendency towards non-permissive pornography attitudes compared to non-Malay. This may be due to the fact that Malaysia as a conservative countries which often view pornography as a taboo subject and viewing pornography is seen sinful especially in Muslim Malay communities which make up the majority of population in Malaysia. This is an opportunity for enforcing SRH knowledge and changing pornography attitudes through culturally and religious acceptable norms to achieve the goal of reducing prevalence of pornography viewing among adolescents in Malaysia. Religious also seen to be significantly influencing pornography attitudes among respondents. The study showed that respondents who obeys religious practice most of the time has a more non-permissive pornography attitudes towards pornography. A study also showed that religiousness through self-internalization and social control can protect adolescents from voluntary pornographic viewing (Hardy et al., 2013).

From this study, we can also prove that SRH education exposure has a positive effect on adolescents whereby they have more non-permissive pornography attitudes compared to those who have never had SRH education exposure. This can be seen when they have a better perception on negative impact of pornography and better perception on contributing factors of pornography. SRH knowledge is proved to be one of the protective factors for adolescents risky sexual behaviors including pornography viewing (Hassan et al., 2016). Therefore this strengthens the need for enhancing SRH education delivery to reduce the occurrence of negative impact of sexual risky behaviors among adolescents. Among others, risky social behaviors is one of the possible influencers in pornography attitudes among youth. Risky social behaviors are known to be risk factors for premarital sex in a study done among adolescents in East Malaysia (Hassan et al., 2016). In this study we have studied the relationship between risky social behaviors and pornography attitudes and has found out that respondents who are involved in risky social behaviors has significantly more permissive pornography attitudes compared to those who are not involved in risky social behaviors. They also have poor perception on negative impact of pornography. This has proved that risky social behaviors also does have an effect on pornography attitudes among adolescents.

From this study we also found out that respondents who were never been involved in premarital sexual intercourse to have more non-permissive perception towards pornography attitudes, better perception on the negative impacts of pornography and better perception on factors contributing to pornography. As depicted in a few studies before (Bogale & Seme, 2014; Peter & Valkenburg, 2008, 2016), adolescents who are more permissive towards pornography tends to be involved in premarital sexual activity which includes uncommitted sexual exploration and casual sex behavior. Additionally, this study also found that respondents who are not exposed to pornography materials has a more non-permissive pornography attitudes compared to those who have been exposed and those who answered not sure. They also have better perception on negative impact of pornography and perception on factors contributing to pornography viewing aside from non-permissive feelings towards pornography. This findings support the intention of changing pornography attitudes among adolescents as it is associated with pornography viewing. Therefore it is crucial to design a program in regards to SRH education with the intention in changing the pornography attitudes among adolescents in Malaysia.

Surprisingly, this study demonstrated direct association of SRH knowledge on permissive perception towards pornography and inverse association between SRH knowledge score and perception on factors contributed to pornography. This indicates that respondents with higher SRH knowledge has more permissive perception and poorer perception on factors contributing to pornography. This study findings contradicts with findings of previous study (Win et al., 2020) whereby they found out that those with higher SRH knowledge has less favorable practices attitudes towards pornography. However, this study able to show that those who have been exposed to pornography, has a better SRH knowledge and respondents who have high SRH knowledge have a more permissive perceptions towards pornography. We can conclude that, from this study, there might be still lacking in SRH education components that need to be emphasize in order to achieve the objective of protecting youth from risky sexual behaviors through provision of comprehensive, effective and targeted SRH knowledge in schools and out of schools programs.

We acknowledge limitations in our study. Among others, the result was limited to a certain age group of youth only (18 - 24 years old). Thus, we were not able to determine the attitude of older youth in TVET Centres and their respective SRH knowledge and pornography attitudes. Second, this study relies on self-report measures; therefore, we are unable to verify the responses and may limit our interpretation due to missing data and under reported data due to the sensitivity of the issues. Although the anonymity of the study was ensured, there is still a probability of response bias as the respondents may be influenced by their peers and thus shared the same ideas and thought about pornography. Thirdly, we understand the limitations of controlling the sampling probability method. During the first part of the data collection, researcher has carried out stratified randomised sampling however due to insufficient data, researcher has to carry out sampling based on the accessibility of researcher to the TVET Centres which is based in Selangor only. However, researcher has implemented sampling method at these three TVET Centres to comply as much to the probability sampling protocol.

Aside from that, there are multiple strength worth mentioning in this study. This study able to demonstrate differences in SRH knowledge and pornography attitudes among youth, which is less explored before and no study has reported the association of SRH knowledge on pornography attitudes among youth. This study also used validated questionnaire on measuring SRH knowledge and pornography attitudes among youth of the sampled age group. The sample size is also appropriate in measuring the effect size according to which test measurement it uses.

CONCLUSIONS

With technology advancement and increase accessibility to pornographic materials, it is wise to explore other factors in protecting youth from accessing pornography materials such as building resiliency among youth through promoting non-permissive pornography attitudes. This study has proved that several personal background factors such as gender, race, SRH exposure, religious practices, practice of risky social behaviours and pornography exposure do have an effect on pornography attitudes among youth. Therefore, implementation of effective and targeted SRH knowledge is crucial to prevent risky sexual behaviours which could lead to health concerns among youth. This study provides evidence on impact of effective and transparent SRH education provision on pornography attitudes among youth.

The commissions of effective SRH education should be timely based on findings pertaining to arising issues and targeted to specific vulnerable groups based on research findings. The knowledge of level of pornography attitudes among youth and its associated factors can provide as a guide on constructing specific intervention programs aimed to change the pornography attitudes among youth of high risk in Malaysia. This information also gives stakeholders a general overview regarding pornography attitudes among youth and trigger policy makers to reinforce plan of action and collaboration among agencies to target high risk youth and in turn protect youth from being involved in negative sexual and reproductive health impacts.

This study has shown the few factors which are associated with differences in SRH knowledge and permissive pornography attitudes among youth and the association between SRH knowledge and pornography attitudes. Further study should be done to explore pornography attitudes among other age groups namely children and young adults as well as among the general population. It is also helpful to investigate its contributing factors towards pornography attitudes, as this evidence is still insufficient. Through this, we can map those of high-risk groups for implementation of appropriate intervention programs targeting in changing the pornography attitudes and positive sexual and reproductive health practices.

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