# **ORIGINAL ARTICLE**

# FACTORS RELATED PORNOGRAPHIC ACCESS BEHAVIOUR AMONG HIGH SCHOOL STUDENTS IN YOGYAKARTA, INDONESIA

Niken Meilani<sup>1</sup>, Nanik Setiyawati<sup>1</sup> and Sammy Onyapidi Barasa<sup>2</sup>

<sup>1</sup>Poltekkes Kemenkes Yogyakarta, Mangkuyudan Street MJ III/304, 55143, Yogyakarta, Indonesia <sup>2</sup>Nursing Department, Kenya Medical Training College, Chuka Campus, P.O. BOX 641 - 60400, Chuka, Kenya

# Corresponding author: Niken Meilani Email address: <u>nikenbundaqueena@gmail.com</u>

#### ABSTRACT

Adolescent have high sense of curiosity but lack opportunity to obtain information and knowledge about reproductive health. Lack of parental support in providing knowledge about sexuality and reproductive health causes them to seek alternative sources of information such as from friends and the internet where they end up accessing pornography. This study aims to analyze the relationship between gender, attitudes about virginity, dating, adolescents' level of knowledge on reproductive health, parents' education level as well as parent-to-child communication on reproductive health with pornographic access behavior in high school students in Yogyakarta, Indonesia. We purposively selected370 high school students aged 17-18 years old living with their parents. The questionnaire was tested for validity and reliability. The chi square analysis showed that there was a significant relationship between gender, attitudes about man virginity, woman virginity and dating, mother's education level, father's education level and mother-child communication about reproductive health with pornographic access behavior (p-value <0.05). There is no relationship between the level of knowledge about adolescent reproductive health and communication between father and child about reproductive health with pornographic access behavior (p-value >0.05). The most significant factor that influenced the behavior of access to pornography is mother-to-child communication on reproductive health (p-value 0.003; PR 2.941; CI 95% 1.459-5.928). Improved communication between the mother and child about reproductive health will have a positive impact on reducing the amount of pornographic access by high school students.

*Keywords*: access, porn, pornography, adolescent, reproduction, communication, Yogyakarta.

# INTRODUCTION

Adolescents as the hope of the nation must have the potential to build lives and positive selfconcept to know and understand themselves because adolescents are a special concern of the community and government. Adolescents are often curious, but they lack the opportunity to get enough information and knowledge related to reproductive health. As a form of curiosity, adolescent will seek as much information as possible. They often feel uncomfortable or taboo to talk about sexuality and reproductive health. Nevertheless, because of their curiosity, they will try to get the information. Often adolescents also feel that their parents refuse to discuss sex issues so they look for alternative sources of information such as friends or the internet media.<sup>1</sup>

Searching for information about sexual behavior today is perpetuated by the development and advancement of information technology in the form of access to the internet through gadgets or smartphones that are in great demand by adolescents in their social interactions. Current technological advances have a negative impact, one of which is the easy access to pornography and pornographic related materials. Pornography refers to written or visual material that is meant to trigger sexual arousal of someone. Pornographic materials are believed to be closely related to the increase in various cases of sexual violence that occur in adolescents.<sup>1,2</sup>

According to data from the National Child Protection Commission in 2011, the survey results stated that in 12 major cities in Indonesia, 83% of teenagers had watched pornographic videos, 93.7% had had sexual intercourse and one in five teenagers in Indonesia or 21% had have an abortion. A study of 200 adolescents of senior high school 1 students in Cerenti Kuantan Sengingi stated that 97.5% of teenagers had sought information about sexual behavior. Another study of 72 adolescent respondents in Boston, Massachusetts stated that participants generally watched pornography about twice per week and 51% reported watching pornography every week or even more often.<sup>1,3,4</sup>

A study in the City of Yogyakarta showed that the majority of respondents (53.33%) had a boyfriend/girlfriend and 81 respondents (90%) stated that the current dating style of high school

students has led tounsafe sex. Nearly half of the total respondents, 46.66%, said they had seen pornographic from video compact disc (VCDs) and most of them (79.19%) came from friends. According to a survey conducted by Kominfo, Yogyakarta Special Region was an area that almost all of its respondents were internet users. Another study stated that there was a significant relationship between exposure to pornography through the internet and sexual behavior with p-value 0.002.<sup>2,5,6</sup>

Based on the background of the problem, it is evident that technological advancement has created an enabling environment for adolescents to access not only reproductive health information but also detrimental pornographic materials. With their curiosity, the adolescents need to be well guided and supported with the right information so that they don't fall prey to detrimental pornographic material.

The purpose of this study was to analyze correlation between gender, attitudes about virginity, dating behavior, level of knowledge about adolescent reproductive health, mother's and father's education level, also mother and communication children father to about reproductive health with pornographic access behavior among high school students in Yogyakarta.

# METHOD

This research was a cross sectional study. The independent variables were gender, mother's and father's education level, mother and father communication to children about reproductive health, attitudes about virginity, dating behavior as well as the level of knowledge about adolescent reproductive health. The Dependent variable was pornographic access behavior among high school students.

Sample size calculation used Lemeshow for hypothesis two proportion. Sample of this study were 370 class X students from six high schools in Yogyakarta. The inclusion criteria of this study were students aged 17-18 years old, having television and smartphone and living with parents. The exclusion criteria for this study were students who stayed with parents but did not have permission, those staying outside on rented hostels and those who did not consent. The sampling technique used in this study was purposive sampling technique.

We used a structured questionnaire to collect data. We collected Socio-demographic information for the students and their parents. We also

collected data on Mother-to-child communication as well as father-to-child communication on reproductive health which we categorized as either no (never) or yes (sometimes/always). Further, we also asked about adolescents' attitudes towards male and female virginity whether they found it important or not important nowadays. Dating at the age of 17-18 years exposes one to high-risk sexual behavior. Thus, we asked the adolescents their dating behavior: whether they were currently dating or had ever dated or agree to date. Those who responded to be currently dating or had ever dated or agreed on dating practices were considered to have a negative attitude and vice versa. With regard to the level of knowledge on reproductive health among the adolescents, we categorized either as poor or good using a cut-off score of 80%. Further, communication between the father and child and the between the mother and child on reproductive health was also categorized as either yes, meaning it occurred or no meaning it did not occur. With regard to access to pornographic material, we categorized as either yes or no.

Analysis used univariate analysis to show variable frequency distribution. Bivariate analysis used chi square test, while multivariable analysis used logistic regression, p-value <0.05 was considered to be statistically significant. The Ethical Committee of Health Polytechnic Yogyakarta Ministry of Health number LB. ethical 01/01/KE/XXI/098/2016 granted the approval for this study.

# RESULTS

Respondents in this study amounted to 370 students in six high schools in the Special Region of Yogyakarta. Based on table 1, our findings show that the majority of respondents were female (68.1%). Majority (94.1%) of the respondents held the opinion that female virginity was important compared to perceptions about male virginity (89.2%).(94.1%) while another (89.2%) felt male virginity was very important. With regard to attitudes about dating (61.6%) were negative. Additionally, this study also found that overall; the level of knowledge about reproductive health (71.6%) is good among the respondents. With regard to parental level of education, at least 47.6% (mothers) and 50.3% (fathers) had attained university level of education. When asked about whether they communicated with their parents on reproductive health issues. mother-to-child communication was present at 86.5% of the cases while father-to-child was lower at only at 54.6%. Additionally, majority of the respondents had accessed pornography (51.9%).

#### Table 1: Variable Frequency Distribution

Variable	n = 370	%
Gender		
Male	118	31.9
Female	252	68.1
Mother's Education Level		
Elementary School	51	13.8
Senior High School	143	38.6
University	176	47.6
Father's Education Level		
Elementary School	29	7.8
Senior High School	155	41.9
University	186	50.3
Mother and Child Communication about Reproductive Health		
No		
Yes	50	13.5
	320	86.5
Father and Child Communication about Reproductive Health No		
Yes	168	45.4
	202	54.6
Attitudes towards man virginity		
Not important	40	10.8
Important	330	89.2
Attitudes about woman virginity		
Not important	22	5.9
Important	348	94.1
Attitude towards dating behavior		
Negative[agree for dating]	228	61.6
Positive [disagree for dating]	142	38.4
Level of Knowledge about adolescent reproductive health		
Poor [<80% correct answer]	105	28.4
Good [>80% correct answer]	265	71.6
Pornographic Access		
Yes	192	51.9
No	178	48.1

Based on the gender variable, the results showed that most, 163 respondents (64.7%) female respondents, did not have access to pornographic material. Meanwhile 28 respondents (70%) who had the attitude that a man's virginity is not important accessed pornography. On the other hand, nearly half (50.3%) of those who thought that a man's virginity was important did not have pornographic access behavior. Eighteen respondents (81.8%) who had the attitude that a woman's virginity was not important had pornographic access behavior. On the other hand, half of those who held a contrary opinion did not access pornographic material.

Results from this study also found that of those who had negative attitudes towards dating, 131 respondents (57.5%), had pornographic access behavior. Based on parental level of education, 33 respondents 66.7% whose mothers had attained at

least primary level of education did not have pornographic access behavior as opposed to 20 students (69%) whose fathers had attained a similar educational level. We also sought to establish the role of parental communication on pornographic access behavior among the respondents. From our present study, we found that 166 respondents (51.9%) who had mother-tochild communication did not have pornographic access behavior.

Our study has also established that majority, 138 respondents (52.1%) of the adolescents who had higher level of reproductive health knowledge also accessed pornography. Meanwhile, most of those respondents (54%) who had communication with their father also had more pornographic access behavior.

	Pornographic Access Behavior			Total		р-	
Variables -	No		Yes		·····		value
	n	%	n	%	n	%	
Gender							
Male	15	12.7	103	87.3	118	100	0.001
Female	163	64.7	89	35.3	252	100	
Mother's Education Level							
Elementary School	34	66.7	17	33.3	51	100	0.006
Senior High School	71	49.7	72	50.3	143	100	0.000
University	73	41.5	103	58.5	176	100	
Father's Education Level							
Elementary School	20	69.0	9	31.0	29	100	0.001
Senior High School	86	55.5	69	44.5	155	100	0.001
University	72	38.7	114	61.3	186	100	
Mother and Child Communication about							
Reproductive Health							
No	12	24.0	38	76.0	50	100	0.001
Yes	166	51.9	154	48.1	320	100	
Father and Child Communication about							
Reproductive Health	0-	<b>FO</b> (		<i>i</i> <b>o</b> <i>i</i>			
No	85	50.6	83	49.4	168	100	0.383
Yes	93	46.0	109	54.0	202	100	
Attitudes towards man virginity							
Not important	12	30.0	28	70.0	40	100	0.015
Important	166	50.3	164	49.7	330	100	
Attitudes about woman virginity							
Not important	4	18.2	18	81.8	22	100	0.005
Important	174	50.0	174	50.0	348	100	
Attitude towards dating behavior							
Negative[agree for dating]	97	42.5	131	57.5	228	100	0.007
Positive [disagree for dating]	81	57.0	61	43.0	142	100	
Level of Knowledge about adolescent reproductive							
health							
Poor [<80% correct answer]	51	48.6	54	51.4	105	100	0.911
Good [>80% correct answer]	127	47.9	138	52.1	265	100	

Table 2. Bivariate analysis factor related to pornographic access among high school students in Yogyakarta

The chi square analysis showed that there was a significant relationship between gender, attitudes about male and female virginity, attitudes about virginity, attitudes about courtship, mother's education level, father's level of education and mother-child communication about reproductive health with pornographic access behavior (p-value <0.05). Conversely, the results of chi square analysis showed that there was no significant relationship between knowledge about adolescent reproductive health and father-child communication about reproductive health (p-value >0.05).

Variable	p-value	Exp(B)	95% CI for EXP(B)		
			Lower	Upper	
Mother's Communication Level	0.003	2.941	1.459	5.928	
Attitudes about woman virginity	0.037	3.366	1.078	10.508	
Father's Education Level	0.016	2.855	1.218	6.694	

Table 3.Results of Multivariable Analysis of Pornographic Access among High School Students in Yogyakarta

Based on table 3, the results of the analysis showed that the factors that most influence the behavior of access to pornography were mother and child communication about reproductive health which had p-value 0.003 with PR = 2,941 (95% CI 1,459-5,928). This showed that students who did not have communication with their mothers about reproductive health were at risk of having access to pornography 2,941 times greater than students who had communication with their mothers about reproductive health.

# DISCUSSION

The results showed that respondents who communicated with their mothers about reproductive health and did not have access to pornography were more dominant, that were 166 people (51.9%), while respondents who did not communicate with their mothers about reproductive health and had access to pornography as many as 38 people (76%). The results of statistical analysis showed that communication between mother and child about reproductive health was the factor that most influenced pornographic access behavior with p value 0.003 and PR = 2,941 (95% CI 1,459-5,928). This means that students who had communication with their mothers about reproductive health would not access pornography 2,941 times greater than students who did not have communication with their mothers about reproductive health.

A study conducted by Gharibi stated that a psychologist mentioned several reasons children committed crimes one of them because of exposure to pornography where this behavior was related to the relationship between mother and child. The research conducted by Kamrani stated that a majority of respondents (39.3%) reported it was very easy to have a dialogue with their mothers. Parental warmth and acceptability of children was perceived by parents to be foundational for a healthy adolescent-parent communication. Perceptions of adolescents tended to point to more open and frequent communication with mothers than fathers and to cordial relationships with mothers.<sup>7,8,9</sup>

Another factor that influenced the behavior of pornography access in students was the father's level of education with p-value 0.016, PR = 2.855 (95% CI 1.218-6.694). Students who had a father with a primary education level would not access pornography 2,855 times more than students who had a father with a high and secondary education level. The results of this study are in line with the research conducted by Noubiap and others which showed a higher level of education than household heads significantly associated with low age at the beginning of sexual intercourse with pornography (p-value <0.05).<sup>10</sup>

Low levels of education are always associated with limited information and knowledge. Through education can improve professional skills and specific knowledge that is still relevant to general knowledge. The length of schooling can cause individuals to be exposed to an increasingly complex environment and lead to cognitive improvement. In this regard, students with fathers who have a low level of education tend to have low knowledge, including reproductive health. Low knowledge about reproductive health owned by fathers certainly does not support children's behavior to not access pornography. But in this study, students with fathers who have a low level of education actually do not access pornography. This can be caused by a father with a high level of education who has a type of work that is very time consuming so that he does not give much attention to his children, especially reproductive health problems.<sup>11,12</sup>

The results of the analysis also showed a significant relationship between attitudes towards male and female virginity and dating with pornographic access behavior (p-value <0.05). Students who have an attitude that a woman's virginity is very important were 3,366 times less likely to have pornographic access behavior compared to their counterparts who held a contrary opinion. PR = 3,366 (95% CI 1,078-10,508). There is evidence that exposure to sexual media content (pornography) is related to sexual attitudes and behavior.<sup>13</sup>

A handful of studies published since the advent of widespread internet availability have found association between vouth exposure to pornography and permissive sexual norms and gender role attitudes, which have subsequently led to sexual aggression, lower levels of sexual satisfaction, earlier sexual behavior, higher preferences for certain body types, negative attitudes towards monogamy, participation in group sex and higher numbers of sexual partners. Given the prevalence of pornography exposure, comprehensive sex education that focuses on the development of correct attitudes and values towards sexual behavior and contemporary pornography is important.<sup>4,14</sup>

According to Lawrence Green, one of the factors that influences behavior is an individual's attitude. Attitudes about woman virginity, man virginity and dating consist of three components namely cognitive, affective and conative. The theory states that if one is not consistent with another, there will be a discrepancy that causes the mechanism of attitude change.<sup>15</sup>

Another factor that influences students' access to pornography is the level of mother's education. The results from our study show that parents of 66.7% of the respondents who did not have access to pornography had only primary level of education. The chi square test results indicated that there was a significant relationship between mother's education level and pornographic access behavior with p-value 0.006. The results of this study were in line with the research conducted by Habesha and other which stated that students whose mothers could read and write were exposed to explicit sexual material such as pornography twice as much as students whose mothers attended school, which indicated that mother's education levels are related to student pornography access behavior.16

The level of education can influence or support a person's level of knowledge and a low level of education is always associated with limited information and knowledge. The low level of education of the mother can cause a lack of knowledge of the mother, including knowledge about reproductive health. Lack of mother's knowledge about reproductive health results in mothers being less able to provide adequate information to their children so that children tend to seek information themselves until they fall into pornographic content.<sup>12</sup>

Gender is also one of the factors that influences the behavior of pornographic access among students. The results of the chi square test showed a significant relationship between gender and pornographic access behavior with p-value 0.001. The results of this study are in line with research conducted by Habesha and other which states that being a male student has almost 1.8 times higher exposure to Sexually Explicit Materials (including pornography) when compared to female students. The difference in effects that occur in adolescent boys and girls is due to differences in sexual stimuli that result in increased libido that occurs. The center of libido is located in the cerebral cortex, at the time of the onset of libido there is a noticeable difference in the emergence of stimulation between men and women.<sup>16,17</sup>

The level of knowledge about adolescent reproductive health is also one of the factors that influence access to pornography. But the statistical results in this study showed no significant relationship between the level of knowledge about adolescent reproductive health and pornographic access behavior with the p-value of the chi square test result of 0.911. This study is supported by research from Mandey and other which states that there is no relationship between knowledge and premarital sexual behavior at risk with p-value >0.05.<sup>18</sup>

Behavior is influenced by the level of knowledge because knowledge is a psychological domain which is a predisposing factor for personal consideration of individuals in underlying and facilitating the occurrence of certain behaviors. However, in this study there was no significant relationship between the level of knowledge about adolescent reproductive health and pornographic access behavior. This can be caused by the lack of awareness of individuals in applying the knowledge they have about teenage reproductive health itself so that even though they have gained sufficient knowledge, they still have pornographic access behavior. In addition, other factors also influence their behavior in accessing pornographic content.<sup>15</sup>

Another factor that influences students' access to pornography is father and child communication about reproductive health. However, in the present study, the results showed that there was no significant relationship between communication with the father about reproductive health and pornographic access behavior with p-value 0.383. The results of this study were in line with the research conducted by Shek and others which stated that there was no significant relationship between communication with family about reproductive health with p-value >0.05. Previous studies showed that parental monitoring, parental quality of parent-child and the control relationships were associated with decreased externalizing behavior, delayed sexual relations and substance use. Perceptions of adolescents tended to point to more open and frequent communication with mothers than fathers and to cordial relationships with mothers.<sup>14,9</sup>

Overall, from the results of this study there are three variables that jointly influence pornographic access behavior, namely: mother-to-child communication on reproductive health, father's level of education and attitudes towards a woman's virginity. The most influencing factor is mother-to-child communication.

# CONCLUSION

The most factor that influence pornography access behavior is mother and child communication about reproductive health.

# RECOMENDATION

Parents, especially mothers, should improve relationships and communication with their children in an effort to provide information and knowledge about reproductive health so that children do not fall into negative behaviors such as accessing pornographic content. The school is expected to participate in improving the understanding and role of parents in efforts to prevent access to pornography.

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