

# The Effect of Media Exposure, Family Closeness, and Knowledge about Sexually Transmitted Disease on Sexually Transmitted Disease Risk Behaviors in Senior High School Students

## (Pengaruh Paparan Media, Kedekatan Keluarga, dan Pengetahuan tentang Penyakit Menular Seksual pada Perilaku Risiko Penyakit Menular Seksual pada Siswa Sekolah Menengah Atas)

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### ABSTRACT

**Background:** Sexually Transmitted Diseases (STDs) is one of the reproductive health problems that caused by unsafe sexual behavior. STDs can be caused by multiple factors, such as influenced by media exposure, family closeness, and the knowledge about STDs. The aim of this research is to evaluate the correlation between media exposure, family closeness, and knowledge about STDs on STDs risk behaviors in senior high school students. **Methods:** This study used cross sectional method, with 92 subjects of senior high school students, using family closeness questionnaire, media exposure questionnaire, and sexual knowledge and behavior questionnaire. The data were analyzed by Wilcoxon test and logistic regression test. **Results:** Based on the Wilcoxon test, the relation of media exposure, family closeness, and the knowledge about STDs with STDs risk behaviors obtained z scores 3.316 (p=0.001), -8.352 (p=0.000), -5.000 (p=0.000), respectively. The regression test showed a correlation value between media exposure, closeness, and the knowledge about STDs with STDs risk behavior of each 3.561 (p=0.040), 1.417 (p=0.011), 5.553 (p=0.037). **Conclusion:** There is a relationship between media exposure, family closeness, and the knowledge of STDs on STDs risk behaviors in senior high school students. Knowledge about STDs is the most influential factor in STDs risk behavior compared to media exposure and family closeness.

**Key words:** Sexual behaviour, media exposure, family closeness, knowledge, STDs.

### ABSTRAK

**Latar Belakang:** Penyakit Menular Seksual (PMS) merupakan salah satu masalah kesehatan reproduksi yang disebabkan oleh perilaku seksual yang tidak aman. PMS dapat dipengaruhi oleh banyak faktor, seperti oleh paparan media, kedekatan keluarga, dan pengetahuan tentang PMS. Tujuan dari penelitian ini adalah untuk mengevaluasi hubungan antara paparan media, kedekatan keluarga, dan pengetahuan tentang PMS pada perilaku berisiko pada siswa Sekolah Menengah Atas (SMA). **Metode:** Penelitian ini menggunakan metode *cross sectional*, dengan 92 subjek siswa SMA, menggunakan kuesioner kedekatan keluarga, kuesioner paparan media, dan kuesioner pengetahuan dan perilaku seksual. Data dianalisis dengan *Wilcoxon test* dan uji regresi logistik. **Hasil:** Berdasarkan *Wilcoxon test*, hubungan paparan media, kedekatan keluarga, dan pengetahuan tentang PMS dengan perilaku berisiko PMS diperoleh masing-masing skor z 3,316 (p = 0,001), -8,322 (p = 0,000), -5,000 (p=0,000). Uji regresi menunjukkan nilai korelasi antara paparan media, kedekatan, dan pengetahuan tentang PMS dengan perilaku risiko PMS masing-masing 3,561 (p = 0,040), 1,417 (p = 0,011), 5,553 (p = 0,037). **Simpulan:** Ada hubungan antara paparan media, kedekatan keluarga, dan pengetahuan tentang PMS tentang perilaku berisiko PMS pada siswa sekolah menengah atas. Pengetahuan tentang PMS merupakan faktor yang paling berpengaruh dalam perilaku berisiko tertular PMS dibandingkan dengan paparan media dan kedekatan keluarga.

**Kata kunci:** Perilaku seksual, paparan media, kedekatan keluarga, pengetahuan, PMS.

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**Introduction**

Sexually transmitted diseases (STDs) is the pandemics that caused health, social, and economic problems. STDs is one of the reproductive health problems that caused by unsafe sexual behavior. Based on data from the World Health Organization (WHO) there are more than one million people affected by STDs every day and 357 million cases occur each year.<sup>1</sup> In Indonesia, the incidence of STDs in 2016 is about 41.259 cases.<sup>2</sup>

Smith (2015) stated that the transmission of STDs can be prevented with a safe sex, but the result of Crosby’s (2012) research showed that the safe sex is less effective than avoid the high risk of behavior in preventing STDs. According to the data of Indonesian population and family information network (BKKBN) 62,7% students in Indonesia had a high risk of sexual behaviour.<sup>3</sup>

The high risk of sexual behavior can be triggered by several things, such as social environment, media exposure of pornography, family bonding, and the knowledge of STDs. In order to prevent the high risk of sexual behaviour and STDs we need to know which factors that have a greater influence of sexual behaviour.<sup>4</sup>

**Methods**

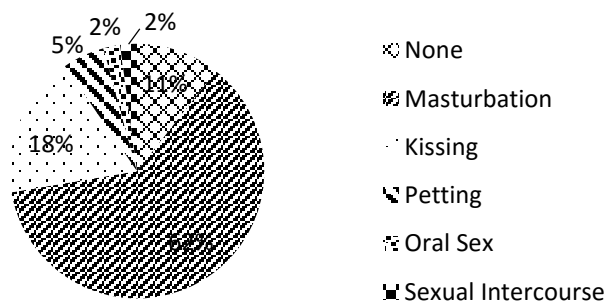
This study used a cross sectional method. The minimum sample size, which was calculated using Slovin formula ( $n = \frac{N}{1+N(d)^2}$ ), was 92 subjects ( $n =$  minimum sample,  $N =$  population,  $d =$  maximum toleration). The subjects were recruited using *purposive sampling*. The inclusion criteria for this study were registered 11<sup>th</sup> grade students aged 14 –19 years old and had a L-MMPI score less than 10. The exclusion criteria of the study were students living in boarding houses or dormitories, students which were absent during data collecting and students which did not completely fill the questionnaire.

The data was collected using family questionnaire, media exposure questionnaire, and sexual knowledge and behavior questionnaire. The data were analyzed by Wilcoxon test and regression logistic test. The Wilcoxon test was used to know the correlation between the variables. The regression logistic test was used to looking for variable with the highest influence of STDs and to predict the amount of influence from each variable. (CI=95%,  $p<0.05$ ). The population for this study was senior high school students in Surakarta. The sample for the study was 11<sup>th</sup> grade students of a public senior high school in Surakarta. This study was conducted in July 2017 – December 2017. The ethical clearance of this study had been approved by Ethical Committee of the Faculty of Medicine, Muhammadiyah University of Surakarta.

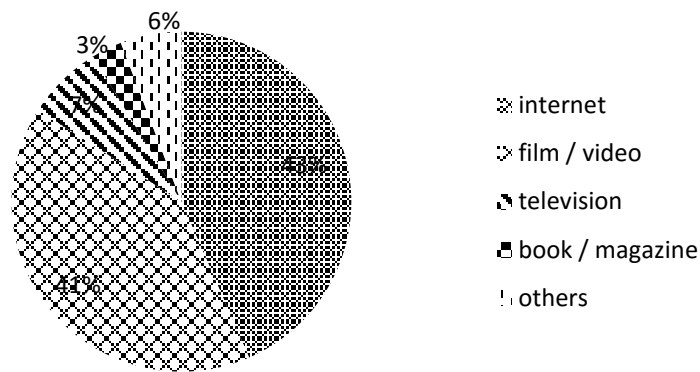
**Results**

The ninety two students with a high risk of STDs from this study is 7.4% and the low risk of STDs is amount 92.6%. The distribution of media exposure showed that 7.4% subjects never had a exposure of pornography, 69.5% subjects had a moderate exposure of pornography, and 23.1% subjects had a high exposure of pornography. About the family closeness, there are 11.6% of subjects which had a bad relation with their family. The distribution of knowledge about STDs on subject showed that 6.3% subjctcs had a bad knowledge, 38.9% subjects had an intermediate knowledge, and 54.7% subjects had a good knowledge.

All the variables of this study had a significance correlation to STDs risk behaviour with the p value less than 0.005. The subject with a high exposure of pornography had a higher responsibility to do a sexual risk behaviour 3.561 point (p value: 0.04) than the others. The less closeness with family improved the responsibility to do a sexual risk behaviour at the point 1.417 (p value: 0.011). The less knowledge about STDs also improved the responsibility to do a sexual risk behaviour at the point 5.553 (p value:0.037).



**Figure 1.** Distribution of sexual activity at private senior high school in Surakarta on July 2017-December 2017.



**Figure 2.** Distribution of pornography exposure at private senior high school in Surakarta on July 2017–December 2017.

**Table 1.** Univariate test of variable of 92 students at private senior high school in Surakarta on July 2017–December 2017

Test Statistics <sup>a</sup>			
	STDs Risk Behaviour – Family Closeness	STDs Risk Behaviour – Media Exposure	STDs Risk Behaviour – Knowledge of STDs
Z – score	-8.352 <sup>b</sup>	3.316 <sup>c</sup>	-5.000 <sup>c</sup>
Asymp. Sig. (2-tailed)	0.000	0.001	0.000

a. Wilcoxon signed ranks test

b. Based on negative ranks.

c. Based on positive ranks.

Information: STDs=sexually transmitted disease

**Table 2.** Correlation between media exposure, family closeness, and knowledge about STDs and STDs risk behaviour of 92 students at private senior high school in Surakarta on July 2017–December 2017

Variables in the Equation		B	S.E.	Wald	Sig.	Exp(B)	Nagelkerke R Square
Step 1 <sup>a</sup>	Family closeness	-4.06	1.598	6.452	0.011	1.417	0.692
	Media exposure	0.579	1.276	0.206	0.04	3.561	
	Knowledge about STDs	-1.875	0.899	4.354	0.037	5.553	
	Constant	5.491	4.408	1.552	0.213	242.59	

a. Variable(s) entered on step 1: Family closeness, Media exposure, Knowledge about STDs.

Information: STDs=sexually transmitted disease.

## Discussion

The ninety two subjects with a high risk of STDs from this study is 7.4%. The family closeness from this group categorized as a low family closeness with a score of family closeness questionnaire less than 50%. Less score on family closeness can increased the risk of STDs from the subjects 1.417 point. It can be occurred because the low of family closeness will make the adolescent have a low function of enviromental control.<sup>5</sup> The recent study showed that the low of family closeness can increase the risk of STDs 4.65 point.<sup>6</sup> Based on Abraham Harold Maslow's theory about human behaviour, behaviour can be occurred

from the natural needs from the human. In this case, if the natural needs from the adolescents about bonding with family can not fulfilled, the adolescents will vent their needs on the other behaviour such as sexual behaviour.<sup>7,8</sup> Family closeness had a significant effect ti reduce the STDs risk behaviour. Previous study showed that family intervention can reduce the risk of STDs on adolescents up to 20%.<sup>9</sup>

Media exposure from the subjects with high risk of STDs is categorized as a massive exposure. The subject with a high risk STDs had a 15.7% higher exposure than the subject with low risk of STDs. From this study, media exposure couldincrease the risk of

STDs from the subjects 3.561 point. Based on Green Behaviour theory, media exposure include in enabling factor of human behaviour. Massive exposure from the enabling factor will lead the human to had a behaviour which accordance with the exposure. The other theory said that the human behaviours are based on human experience and insight. In other word, if adolescents get a massive exposure about pornography, it can lead them to had a high risk sexual behaviour than the others.<sup>8,10</sup>

The knowledge of STDs from the subjects with high risk of STDs is categorized low knowledge with the score less than 50%. The low of knowledge about STDs could increase the risk of STDs 5.553 point. The recent study showed that subjects with high knowledge about STDs will decrease the risk of STDs 8.3% compared with subjects with low knowledge about STDs. Based on cognitive theory, knowledge will make someone know the positive and negative effect from their deeds. The higher knowledge about STDs will make someone understand the negative effects from unsafe sexual behaviour. If someone know the negative effect from unsafe sexual behaviour, it can lead them to avoid the sexual risk behaviour.<sup>5,10</sup> Previous research showed that intense intervention about knowledge of STDs can decrease the incidence of STDs up to 19%.<sup>11,12,13</sup>

The knowledge of STDs is the most influence factors on STDs risk behaviour between media exposure and family closeness. This happens because the knowledge is the major predisposing factor in behavioral theory. As a major predisposing factor, knowledge will affect attitudes, individual values/individual norms, and sociodemographic factors. Accordingly, the low level of knowledge will lead someone to get an inappropriate behaviours.<sup>14,15</sup>

There is a relationship between media exposure, family closeness, and the knowledge of STDs on STDs risk behaviors in senior high school students. The knowledge about STDs is a more influential factor in STDs-risk behavior (odd ratio: 5.553) compared to media exposure (odd ratio: 3.561) and family closeness (odd ratio: 1.417).

Family closeness and knowledge about STDs had a negative effect on STDs risk behaviour. The lower family closeness and knowledge about STDs will increase the risk of STDs. While media exposure had a positive effect on STDs risk behaviour. The more often subjects exposed with pornography media then the risk of STDs will also increase. To get a better result, author advises the next researchers to find out the effect of intensive intervention of family closeness, media exposure, and knowledge of STDs on sexual risk behaviour in students.

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