# **ORIGINAL ARTICLE**

# The Impact of Internet Media on Knowledge of Reproductive Health

WINDA DWI PUSPITA<sup>1</sup>, ERNANINGSIH<sup>2</sup>, J. NUGRAHANINGTYAS<sup>3</sup>

<sup>1</sup>DIV student Midwife Educator Faculty of Health Sciences University Respati Yogyakarta

<sup>2</sup>Lecturer DIV Midwife Educator Program Faculty of Health Sciences University Respati Yogyakarta

<sup>3</sup> Lecturer Program Midwife Educator DIV Faculty of Health Sciences University Respati Yogyakarta

Correspondent author to Winda Dwi puspita email: dwi0693@gmail.com

## **ABSTRACT**

**Background**: Time spent on social media users every day to encourage people always to know the development of information and make it part of their daily lives. Increased social activity in youth kalngan no accompaniment with increased knowledge about sexual health HIV / AIDS, sexually transmitted diseases (STDs), and contraception.

Aim: This study aims to determine the long-standing relationship with the Internet usage rate of reproductive health knowledge.

**Methods:** This study used a descriptive-analytic cohort study.

**Results**: The results of the research in this study are no long relationship with the Internet usage rate of reproductive health knowledge where the p-value 0.534> 0.05

Conclusion: There was no relationship between Internet usage duration with the level of knowledge of reproductive health.

Keyword: internet use, knowledge, reproductive health

### INTRODUCTION

The Internet emerged as a very dynamic phenomenon. The emergence of the Internet influence people's lives that makes everything all-digital. The facilities are available on the internet, making it easy for users to communicate and interact, which can be done through social networking media. Besides, Internet access is so large that any necessary information is already available, and the access was not limited by space and time [1]. According to Chou, in the United States, as much as 23% of the people spend time online on social media, about twice as much time spend on each activity online [2]. Simultaneously, Internet users in Korea spend his time about 14 hours per week using the internet. Time spent social media users every day to encourage individuals to be aware of the development of information and make it part of their daily life [3]. Findings show that overall Internet use for academic purposes has increased. Students generally report positive opinions about the Internet's utility for academic work, but satisfaction with it for academic interactions may be on the decline [4]. Spending time on social networking sites and has become part of most young US adults' daily activities. One study in the US reported using the Internet an average of 10 to 30 minutes every day [5]. Another study found that about half of the age of 12-17 years logs in to social networking sites every day: 22 % log in to social networking sites several times per day, 26% once a day, 17% three to five days per week, 15% of one or two days per week, and only 20% every few weeks [6].

The use of the Internet has grown in Indonesia. However, it also threatens the negative impact, so the parents need to understand the child's positive and negative sides of the Internet. Some parents even exist who prohibit their child uses the internet. The dilemma of internet use for children arising from the nature of the media that have the characteristic "super open" where everyone indiscriminately connected to the Internet can freely access the information in it. The existing filter rests on each individual [7]; in Indonesia, about 16-20% of

adolescents who consulted have premarital sex, the number of cases is likely to rise. The increasing number can see of abortions in Indonesia reached 2.3 million per year. Tragically 15-30% of adolescent behavior that abortion is the status of junior high school students (secondary school) and high school (High School), this shows the vulnerability of adolescents to the problem of free sex [8]. Factors that influence sexual behavior in adolescents consists of several factors that are still associated with the environment include: ignorance of parents about the importance of sex education, sexual stimulation in the family, children are not trained to ask permission, the beds are close together, imitation sexual behavior, family disregard for the supervision of the media information that mostly contains elements of pornography, the environment, as well as friends depraved [9].

Changes follow the occurrence of physical changes in adolescents in the reproductive system; it often lacks in realized by juveniles do not understand and know what to do that health is maintained. Today many adolescents lack information about reproductive health. Teens' knowledge about health reproduction is still shallow. Based on the BKKBN survey in 2010 estimated 17.1% of women and 10.4% of men know about fertility and pregnancy risks. Insufficient knowledge about reproductive health due to the lack of information on reproductive health can increase the risk of unintended pregnancy (KTD), abortion, and sexually transmitted infections [10]. One of the lack of knowledge of adolescents about reproductive health is where N is desired by unwanted pregnancies, where pregnancies often end in abortion. The survey results of the National Family Planning Coordinating Board (BKKBN 2010) 9 say that an average of 100 adolescents in the Greater Jakarta area, approximately 54%, had had premarital sexual relations. The incidence of premarital sex in Surabaya reached 47%, in Bandung and Medan, 52%. The free sex teenagers' effects on HIV / AIDS cases flourish in Indonesia [11]. Based on the preliminary studies in SMA Negeri 2, Sleman stated that various sites could be opened when accessing the Internet. Many options, ranging from online gaming, browsing, and chatting, started searching for information to complete the school's tasks. However, the tendency to open other websites in addition to the tasks often happens. Retrieved also use a variety of information about the time for 1-2 hours typically use in the cafe, while more than 3 hours of use via smartphones. The students said that sometimes the Internet could disrupt hours of other useful activities, such as taking a nap, doing some homework, tutoring, etc. Based on a preliminary study conducted by researchers on 9 June 2015 at SMA Negeri 2 Sleman, the total number of students in class XI was 124. To find out more, researchers conducted a preliminary study by interviewing the 15 students of class XI, where the results of interviews showed that three people use the Internet to access information about health articles, four people using the internet for schoolwork, six people use the Internet to play social media, and two people rarely access the internet.

### **METHODS**

This study uses a descriptive analysis is to determine the relationship between the old use of the Internet with the level of health knowledge repeoduksi health. This study used a cohort study approach and was held on 23 March-23 April 2016 SMA Negeri 2 Sleman, Yogyakarta. The population was all students of class XI SMA Negeri 2 Sleman, amounting to 124 students then calculated using the formula solves the obtained amount of sample is 86 students. In this research, sampling techniques were used that probability sampling with a random sampling of sample types where the time of sampling study visits is based on inclusion and exclusion criteria.

# **RESULTS AND DISCUSSION**

- A. Research Result
- An Overview of Research Sites

The research was conducted in Class XI 2nd National High School (SMA 2 Sleman) Yogyakarta Special Region, namely the male and female students in class XI SMA Negeri 2 Sleman, the academic year 2015/2016 located in Brayut, Pandowoharjo, Sleman, Yogyakarta. In SMA Negeri 2, Sleman has never held counseling on reproductive health, especially the importance of knowledge of adolescents' reproductive health.

# Univariate analysis

## a. characteristics of Respondents

Table 1. Frequency Distribution Characteristics of Respondents in SMA Negeri 2 Sleman 2016

| Education          | f  | %    |
|--------------------|----|------|
| Primary school     | 1  | 1.2  |
| Junior high school | 8  | 9.3  |
| Senior High School | 52 | 60.5 |
| College            | 25 | 29.1 |
| Total              | 86 | 100  |
| Work               | f  | %    |
| Labor              | 7  | 8.1  |
| PNS                | 25 | 29.1 |
| Entrepreneur       | 43 | 50   |
| Farmer             | 11 | 12.8 |
| Total              | 86 | 100  |
| Gender             | f  | %    |
| Woman              | 56 | 65.1 |
| Man                | 30 | 34.9 |
| Total              | 86 | 100  |

Table 1 above showed that 1.2% of parents of respondents with elementary education level, 9.3% to the secondary school education level, 60.5% with a high school education level, and 29.1% to a college education level. Table 4.1 above showed 8.1% of respondents with jobs as Labor, 29.1% as civil servants, 50.0% as Self, and 12.8% as farmers. Table 4.1 above showed that 65.1% of respondents were female, and 34.9% were male sex.

# b. Characteristics of Respondents Based on the Old Use of Internet

Table 2 Frequency Distribution Characteristics of Respondents Based on the Old Use of the Internet in SMA Negeri 2 Sleman

|                    |                     | Use of the Internet |                    |       |       | Total |  |
|--------------------|---------------------|---------------------|--------------------|-------|-------|-------|--|
| Education Parents  | Medium Users<br>(F) | %                   | Heavy Users<br>(F) | %     | f     | %     |  |
| Primary school     | 0                   | 0                   | 1                  | 1.16  | 1     | 1.16  |  |
| Junior high school | 0                   | 0                   | 8                  | 9.30  | 8     | 9.30  |  |
| Senior High School | 1                   | 1.16                | 51                 | 59.31 | 52    | 60.47 |  |
| College            | 1                   | 1.16                | 24                 | 27.91 | 25    | 29.07 |  |
| Total              | 2                   | 2,32                | 84                 | 97.68 | 86    | 100   |  |
| D                  |                     | Use of the Internet |                    |       |       | Total |  |
| Parents' job       | medium Users(F)     | %                   | heavy Users(F)     | %     | f     | %     |  |
| labor              | 0                   | 0                   | 7                  | 8.13  | 7     | 8.13  |  |
| PNS                | 0                   | 0                   | 25                 | 29.06 | 25    | 29.06 |  |
| entrepreneur       | 2                   | 2.33                | 41                 | 47.68 | 43    | 50.01 |  |
| farmer             | 0                   | 0                   | 11                 | 12.80 | 11    | 12.80 |  |
| Total              | 2                   | 2.33                | 84                 | 97.67 | 86    | 100   |  |
|                    | Use of the Internet |                     |                    |       | Total |       |  |
| Gender             | medium Users(F)     | %                   | heavy Users(F)     | %     | f     | %     |  |
| woman              | 1                   | 1.16                | 55                 | 63.96 | 56    | 65.12 |  |
| Man                | 1                   | 1.16                | 29                 | 33.72 | 30    | 34.88 |  |
| Total              | 2                   | 2,32                | 84                 | 97.68 | 86    | 100   |  |

Table 2 above showed that most respondents' parents with high school educated respondents amounted to 59.31% of heavy users. Table 4.2 above showed that the respondent's parents have a job as self-employed by the respondent amounted to 47.68% heavy users. Table 2. above showed as much as the female respondents with a heavy user of 63.96%.

### c. Research variable

### 1) Older Internet Usage

Table 3. Distribution of Frequency of Internet Usage by Lama Students at SMA Negeri 2 Sleman 2016

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|--|---------------------|----|------|--|
|  | Use of the Internet | f  | %    |  |
| I  | heavy Users         | 84 | 97.7 |  |
|  | medium Users        | 2  | 2.3  |  |
|  | Total               | 86 | 100  |  |

Table 3 showed 2.3% of respondents with Internet usage rates Medium Users, and 97.7% of respondents with Internet usage rates Heavy Users.

### 2) Level of Knowledge

Table 4 Frequency Distribution Based On Reproductive Health Knowledge Level Students at SMA Negeri 2 Sleman 2016

| Knowledge level | f  | %    |  |  |  |
|-----------------|----|------|--|--|--|
| Good            | 72 | 83.7 |  |  |  |
| Enough          | 14 | 16.3 |  |  |  |
| Total           | 86 | 100  |  |  |  |

Table 4 above showed 16.3% of respondents with a sufficient level of knowledge and 83.7% of respondents with the right knowledge level.

### Old Relationships Using the Internet With Reproductive Health Knowledge Level in SMA Negeri 2 Sleman 2016

Table 5 Tabulation Lama Use of the Internet by Knowledge Level Reproductive Health in SMA Negeri 2 Sleman

| Older Internet |        | Knowledge level |      |       |    | Total | P-value |
|----------------|--------|-----------------|------|-------|----|-------|---------|
| Usage          | Enough | %               | Good | f     | %  |       |         |
| -              | (F)    |                 | (F)  |       |    |       |         |
| heavy Users    | 14     | 16.28           | 70   | 81.40 | 84 | 97.68 |         |
| medium Users   | 0      | 0               | 2    | 2,32  | 2  | 2,32  | 0.534   |
| Total          | 14     | 16.28           | 72   | 83.72 | 86 | 100   |         |

Based on the results tabulation table 4.5 between the prolonged use of the Internet with the level of reproductive health knowledge in SMA Negeri 2 Sleman, knowable respondents with Internet users with a category of heavy users sufficient level of knowledge as much as 16.28% and the level of knowledge both as much as 81.40%. Respondents medium category internet users with an adequate level of knowledge as much as 2.32%. Spearman correlation of test results with a confidence level of 95% or  $\alpha$  = 0.05, after the processing of data, obtained Spearman correlation value of 0.534. Where 0.534> 0.05 then H0  $\alpha$ . This means that there is no relationship between Internet usage duration with the level of reproductive health knowledge in SMA Negeri 2 Sleman.

### DISCUSSION

Education: The study results in SMA Negeri 2 Sleman showed that of the 86 respondents were taken. The result was that most parents of respondents with high school education level of respondents heavy users as much as 59.31%. This study's results are not in line with research conducted by Dewi (2013). The results showed their relationship with the internet exposure levels where the child's social development p-value 0.0005 <0.05. The results showed that most parents have some college education, where parents give the child freedom to access the Internet. Parents also introduced regulations for children's internet use only on holidays-education of parents influences adolescent development. The times during this period accelerated. The increasingly sophisticated technology used. So is the attitude of young people who use technology. Searching for information and developments in the national and international markets can be accessed quickly, accurately, and reliably on the internet. Children who have parents with higher education will have more knowledge and keep abreast of the increasingly modern era. A child with internet exposure is higher than children with lower educated parents (Dewi, 2013).

- Work: The study results in SMA Negeri 2 Sleman showed that of the 86 respondents are taken, the result that most parents of respondents with a job as a heavy user of respondents Self with as many as 47.68%. This study is not in line with the Dewi (2013) 10 on exposure to children's internet social development. There is a significant relationship between parents' work with the level of exposure of children to the internet with a p-value of 0.043 <0.05. Analysis of the cross table between the work of parents with a variable level of exposure of children to the Internet, there is a trend that students with parents as private employees a higher degree of exposure to the Internet where the majority of the work the parents themselves are private employees with the percentage of children 20,9%. Children who have a parent with a job as an entrepreneur highest level of internet usage, as described in the research results. Moersintowarti the Dewi (2013) 10 describes a child of the economic family can have greater Internet exposure than those from families of children who are less able.
- 3. Gender: The study results in SMA Negeri 2 Sleman show of 86 respondents in the capture result that most of the respondents were female and the heavy respondent user is as much as 63.96%. This study is not in line with the Dewi (2013) 10 on exposure to children's internet social development. There is a significant relationship between gender and the level of exposure of children to the Internet

with a 0.04 p-value <0.05. The results showed that boys tend to have higher levels of exposure to the Internet from 41 people who surf with a high category, 23 are boys, and the rest were women. The results showed that girls tend to have higher intensity in using the internet and have good knowledge about reproductive health. The results of this study are not consistent with research Media Awareness Connolly, (Blais et al., 2007) in the Dewi (2013) 10 that the activities undertaken by the male students are playing games (85% farther than female students (68%). Students males tend to be higher due to the study results. Most of the male respondents play online games when they surf. Online gaming is one cause of high surfing rates because it causes addiction.

- Older Internet Usage: The study results in SMA Negeri 2 Sleman show of 86 respondents in the capture data showed that most of the respondents included heavy users of internet users as much as 97.7% and medium users as much as 2.3%. Based on the study results (cohort), of the total respondents, the average internet usage for one month was 67 hours 44 minutes. The highest internet usage in one month is 188 hours, and the lowest internet usage in one month is 54 hours. All respondents tend to use the internet to access social media. The research results show that the time spent on the internet is time off and on Saturdays and Sundays. At the end of the week, children have more free time. With this more free time, children can explore information technology, in this case, the internet. This research is not in line with what was done by Dewi (2013) 10 about the level of internet exposure with children's social development, where the pvalue is 0.0005 < 0.05. Research shows that out of 91 children, 41 people belong to high users, 25 people fall into medium users, and 25 people fall into low internet users. The results of the question and answer during the survey to several children and the time spent on the internet are at the end of the week.
- Level of Reproductive Health Knowledge: The research results in Sleman 2 State Senior High School showed that 86 respondents obtained data that most respondents had a suitable category of reproductive health knowledge as much as 83.7% and 16.3% enough. Various factors can influence knowledge. Pro Health (2009) states that there are six most important things in the formation of knowledge in adolescence: education, mass media, social culture and economy, environment, experience, and age. Based on research conducted by Rizza (2010) 11 with the title "the relationship between the number of mass media with reproductive health knowledge" conducted on respondents who are the same as this study, it was produced that to get information about reproductive health, and the respondents used more books (100 %). Respondents who use the internet are only 11 people (44%) from 25 people. This shows that few teenagers claim to access the internet to obtain information about reproductive health. Piaget's theory states that teens tend to build their knowledge of information from the media, friends, and parents. Teens combine experience and their observations to establish their knowledge and include new ideas from resources to develop their understanding of knowledge. (Dewi, 2010)

A long relationship with the Internet usage rate of reproductive health knowledge in SMA Negeri 2 Sleman: After testing the data using Spearman correlation, Spearman correlation test results with error level  $\alpha = 0.05$ . After data processing obtained nilali Spearman rank correlation of 0.534, Ho is accepted. There is no relationship between Internet usage duration with the level of reproductive health knowledge in SMA Negeri 2 Sleman. The absence of a significant association between extended use of the Internet with the knowledge of reproductive health can occur because several factors affect the level of knowledge of reproductive health, such as information, mass media, the influence of significant others, parents, friends, and discussion [12]. This study is in line with Hery Ernawati (2014) 14 concerning the relationship between using information systems-based websites with knowledge of adolescent reproductive health in Ponorogo. The results show (1) the average frequency of accessing the website and duration of access websites adolescent reproductive health in a week, i.e., 1.36 times and 1.65 hours, (2) knowledge of adolescent reproductive health as much as 58.1% in the low category, (3) there is no relationship between the use of web-based information systems with knowledge of adolescent reproductive health, although there is a trend of increased frequency and the length of reproductive health website access to the high-knowledge group. This study is not in line with the Goddess (2013) 10 on exposure to children's internet social development. The results showed a significant correlation with a p-value of 0.0005 < 0.05. Research Goddess (2010) 10 on the use of mass media relations to the level of knowledge of adolescent reproductive health in SMAN 8 Jakarta, where there is a significant association between the use of the mass media with knowledge of reproductive health a pvalue 0.000 <0.05. And research Nastiti (2009) 15 concerning the number of mass media relations to the level of knowledge of adolescent reproductive health at SMU 5 Madiun.

# **CONCLUSIONS**

There was no relationship between the duration of Internet usage with the level of knowledge of reproductive health. **Suggestion:** The results of this research can be used as a source of knowledge for students or students about the disease's impact arising from not maintaining reproductive health properly.

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