

Dominant Biological and Psychological Factors Affect Adolescent Awareness about Reproductive Health

Nurul Aini

Department of Nursing, Faculty of Health Science, University of Muhammadiyah Malang, Jalan Bendungan Sutami No. 188A, Malang, East Java, Indonesia

Keywords: Reproductive awareness, adolescents.

Abstract: Knowledge about reproductive health should already be possessed by adolescents, through information media it is very easy to get it. But with the vast amount of knowledge possessed by teenagers, it has not been able to foster a sense of belonging to their reproductive health status. This research was conducted through a cross sectional study approach. This study obtained 221 respondents using purposive sampling technique. The value of the results of multiple logistic regression tests conducted simultaneously on the three variables obtained significant results are as follows, X1 (0,000), X2 (0.122) and X3 (0.009). The results showed insignificant because of the sig value. $X2 > 0.005$. The odds ratio (OR) values of X1 and X3, are 0.069 and 0.218 which means the greatest odds ratio is on biological and psychological factors. Various factors that become variables on adolescent awareness about reproductive health are social, economic and demographic factors, cultural and environmental factors as well as biological and psychological factors affecting the level of adolescent awareness of their health in terms of reproduction. Of the three components of the factors mentioned above, biological and psychological factors have the greatest influence.

1 INTRODUCTION

There are almost one billion young people aged between 10 and 24 years who live in Asia. These young people live in diverse socio-cultural and economic contexts, but there are important challenges and opportunities related to their sexual and reproductive health. In all countries, increasing access to media, and urbanization globalization contributes to changes in sexual values, norms and behavior of young people (UNFPA, UNESCO & WHO, 2015). There is broad international agreement that young men and women have the right to sexual and reproductive health (Khatiwada, et al., 2013).

Knowledge about reproductive health should already be possessed by adolescents, through information media it is very easy to get it. But with the vast amount of knowledge possessed by teenagers, it has not been able to foster a sense of belonging to their reproductive health status. This situation cannot be allowed to flow and continue to flow without any real solution. The future of the nation's children must be saved. The most feared danger due to low awareness of reproductive health is unsafe sex that can result in unwanted pregnancy,

abortion, early marriage, and most recently HIV/AIDS is ready to threaten (Okigbo & Speizer, 2015). Data in 2011 showed an increase in cases of premarital intercourse, an increase in unwanted pregnancies, and an increase in sexually transmitted diseases experienced by adolescents aged 12 to 21 years in Indonesia, especially in East Java.

Reproductive health is a state of perfect health both physically, mentally, and socially and not merely free from disease or disability in all aspects related to the reproductive system, its functions and processes (WHO, 2008). Referring to this definition, it can be said that adolescents who have a low awareness of attitudes towards reproductive health are actually being sick. Because of being sick, it is necessary to be given help, not be judged or punished when experiencing abusive reproductive health behaviors. The low awareness of these attitudes can be influenced by internal and external factors. This is important to be a concern of health workers regarding reproductive health for adolescents. The use of reproductive health services is an important component in preventing adolescents from different sexual and reproductive health problems (Negash et al., 2016). Based on the above

background, the purpose of this study is to analyze the factors that cause low awareness of adolescents about reproductive health.

2 METHODS

This research was conducted with an observational research design through a cross sectional study approach. The population in this study were secondary students in East Java - Indonesia. The sampling technique used was purposive sampling technique. Obtained a sample of 221 respondents. The instrument used in this study was a questionnaire consisting of questionnaires about hormonal factors, knowledge factors, parent factors, friend factors, advertising factors, demographic factors, psychological factors, social class factors.

Statistical calculations were performed with the chi square test to determine the effect of each variable. Then a multiple logistic regression test is performed to test the significance of the relationship of the dependent variables simultaneously with the dependent variable and find out which factors are most influential.

3 RESULTS AND DISCUSSION

The result of the study describe in the table 1 and table 2

Table 1: Frequency of demographic dominance respondents.

Category	Dominance (%)
Socioeconomic demography:	
Low	88 (40)
High	133(60)
Culture and environment:	
Low	91 (41)
High	130(59)
Biology and Psychology:	
Low	57 (26)
High	164(74)

Based on the results of bivariate data analysis using chi square with a significance level of 5% was carried out to determine the effect of each variable. While multi-variate data analysis using multiple logistic regression tests with a significance level of 5% was carried out to test the significance of the relationship between the dependent variables with

the dependent variable and find out the factors that most influence between X1 (socioeconomic and demographic factors), X2 (factors culture and environment), and X3 (biological and psychological factors). The data analysis test table results in multiple logistic regression as below:

Table 2: Logistic regression analysis.

Factor	Konstanta	Sign	OR
Socioeconomic demography	-2.676	0,000	0,069
Culture and environment	-.592	0,122	0,553
Biology and Phsychology	-1.525	0,009	0,218

The value of the results of multiple logistic regression tests conducted simultaneously on the three variables obtained significant results are as follows, X1 (0,000), X2 (0,122) and X3 (0,009). From these results it can be said that when tested simultaneously (simultaneously) X2 is said to be insignificant because of the sig value. $X2 > 0.005$. So to determine which factors are most influential, just compare the odds ratio (OR) values of X1 and X3, which are 0.069 and 0.218. Where from the value of the two variables that have the greatest odds ratio is on biological and psychological factors.

This study found that the majority of respondents were at a high social, economic and demographic level, this is according to the Indonesian demographic and health survey (SDKI) in 2012, which stated that variations in provincial and district locations significantly influenced the chances of having premarital sexual relations with or without considering reproductive health. A study in Ethiopia was conducted on high school female students in northwestern Ethiopia, where 3.9% have been reported to be sexually active. This may be due to cultural barriers both for having premarital sex and for reporting having sex. However, this figure is far lower than a study conducted at Zeway secondary school (south central Ethiopia) where 31.5% reported experiencing sexual experiences (Melaku et al., 2014).

Education and employment become one of the important determinations in adolescent awareness about reproductive health. Economic imbalances can cause differences in terms of education and employment, members of the community with lower economies have lower levels of awareness about reproductive health, this is because adolescents with lower economies get less knowledge about reproductive health. Sexual maturation also often

occurs earlier than average than cognitive maturity, girls tend to mature more quickly than boys. When combined with the disparities in the socioeconomic status of young adolescents, the dwellings and rural-urban living conditions mentioned earlier, these individual and group variations create significant challenges to the effective implementation of sexual and reproductive health (WHO, 2010).

Research has found that there is a relationship between cultural and environmental factors with adolescent reproductive health awareness. Family environment, family structure and communication in the family have values and norms that are different from other families, this can affect adolescent sexual behavior patterns. This is due to several factors such as some families being more protective of association from other family members and the disruption of communication between teenagers and parents, due to the taboo to discuss matters of systems, functions and reproductive organs. WHO collects information about 13–15 years old perceptions of protective factors (or lack thereof) in schools, networks of friends and families (such as whether their parents or guardians know where they are and what they do when they are not in school), in alongside student self-reports on their healthy or risky behavior (WHO, 2010).

Adolescent ignorance about reproductive health will have serious consequences, such as adolescents will experience an unwanted pregnancy (unwanted pregnancy), which in the system and values in Indonesia, means prolonged disaster. In addition to the family environment, the environment between peers can also affect adolescent sexual behavior patterns because during adolescence, the interaction and presence of adolescents with their parents tends to decrease because of the great need to be with their peers. This results in reduced parental control and increased peer influence and not infrequently the perception of parents is considered old-fashioned by teenagers. Teenagers tend to follow the opinions of their groups and behave according to agreement. So that often adolescents behave where the behavior carries a great risk, one of which is sexual behavior that can lead to unwanted pregnancy. The community environment is also one of the factors that can influence sexual behavior and awareness about adolescent reproductive health.

In the rural environment sex tends to be considered taboo while in big cities the promiscuity between genders among adolescents continues to increase. The marginalization of rural areas creates further challenges for adolescents who want to access and utilize preventive reproductive health

services. Efforts to provide reproductive health services to adolescents have focused mainly in urban areas leaving rural areas (Kamau, 2006). Every society has cultural differences, from these cultural differences there are still cultures that apply norms and values that can affect the reproductive health and sexual behavior of members of the community, such as there are still strong restrictions on sexual behavior outside, the prohibition is made to prevent the occurrence STD or HIV infection and teenage pregnancy at an early age. Dating behavior or having a romantic relationship with a partner in this era of globalization tends to adopt western culture, so the behavior that is manifested is more permissive. Having a partner or in other words having a boyfriend can be things that affect awareness about reproductive health, this is caused by lust, lust that arises when you're with a partner. Couples who are dating, are more likely to make physical contact in the form of touch to their partners. Sensations that arise can be excessive and if not controlled can lead to acts of premarital sexual behavior (Sarwono, 2011).

This study also found that there was a relationship between biological and psychological factors and adolescent reproductive health awareness. Adolescence is characterized by an increase in emotional, biological and psychological changes. that change makes adolescents more vulnerable to unsafe sex, premature marriages, extramarital pregnancy and unsafe abortion. This is as said by Odo, et al. (2018) that adolescents represent 25% of the world's population and are characterized by a series of physiological, psychological and social changes that expose them to unhealthy sexual behavior such as early sex experiments, unsafe sex and many sexual partners. So that in adolescence knowledge and awareness about reproductive health must be increased.

Having a partner (girlfriend) is often considered as a process to pour out the contents of the hearts of couples of the opposite sex who love each other, love and love each other. Dating orientation in adolescents today has led to behavior beyond the limits such as sexual behavior to fill leisure time and do not rule out the possibility of engaging in sexual behavior that they should not. Puberty and maturation of reproductive health can cause sexual urges in adolescents who begin experimenting with sexuality through courtship. This relationship was found among teenagers who were interested in expressing feelings through behavior. These patterns can illustrate a limited level of reproductive health awareness regarding gender and social norms during

puberty. This shows that the age of marriage must be increased to prevent premarital sexual activity among adolescents in Indonesia (Sugama, 2016).

Adolescence can be called as a period where a person's curiosity begins to increase in various ways including the field of sex. By the time the adolescent reproductive organs have begun to experience development, hormones begin to function, changes in physical form and increased sex drive in adolescents. Psychological development of adolescents is shown by the emergence of interest in the opposite sex and the drive for desire to get sexual satisfaction. one of the problems that often arises among adolescents during the early maturity of the reproductive organs is unsafe sex. Unsafe sex is a great risk for pregnancy outside of marriage, whereas in adolescents the reproductive organs such as the uterus are not quite ready to maintain the results of conception and fetal development and mentally at adolescence are not mature enough and mature (Tucker et al., 2012). Lack of knowledge and awareness of adolescents about reproductive health is one of the causes of adolescents having sexual relations.

The results showed that the most dominant factor in relation to reproductive health awareness was biological and psychological factors. A WHO report in Algeria, Bangladesh, Ethiopia, Indonesia, and Nigeria shows that the risk of death from complications related to pregnancy or childbirth is twice as high for those aged 15-19 years than for women in their mid-twenties (Odo et al., 2018). Teenagers are a transitional stage from childhood to adulthood. In this period, adolescents underwent several changes in themselves including biological, psychological, social, moral and spiritual changes. Biological changes include physiological changes, hormonal changes and sexual behavior as well as emotional changes. Psychological changes include the formation of new identities, changes in the function of self-identity, the beginning of the individuation process, understanding new experiences in life and efforts to adjust.

Teenagers often lack basic reproductive health knowledge and access to affordable and confidential health services. In addition, most teenagers do not feel comfortable discussing reproductive health issues with their parents (Helano, 2017). Teenagers at this stage have not yet reached mental and social maturity so in this period adolescents face many conflicting emotional and social pressures. In this period, adolescents will experience rapid physical changes when adolescents enter puberty. One of the physical changes is the ability to carry out the

process of reproduction. Problems that often occur among adolescents regarding reproductive health include those related to unprotected sexuality, the spread of venereal disease (sexual transmitted disease), pregnancy outside marriage or unwanted pregnancy (adolescent unwanted pregnancy) among adolescents.

These latter problems can lead to other problems including unsafe abortion and early marriage. All of these problems are referred to by WHO as adolescent reproductive health problems. adolescence is a phase of life in which young children are very vulnerable to health risks, especially those related to sexuality and reproduction. The most common adolescent problems related to sexuality and reproductive health include: HIV / AIDS, unwanted pregnancy, unsafe abortion, early marriage and teen pregnancy, sexually transmitted infections and malnutrition (10). These problems can arise due to the fact that most teenagers do not yet know and understand reproductive health, which is about fertility and how pregnancy occurs and adolescents have not yet reached mental and social maturity.

4 CONCLUSIONS

Various factors that become variables on adolescent awareness about reproductive health are social, economic and demographic factors, cultural and environmental factors as well as biological and psychological factors affecting the level of adolescent awareness of their health in terms of reproduction. Of the three components of the factors mentioned above, biological and psychological factors have the greatest influence.

REFERENCES

- Helamo D. 2017. Utilization and Factors Affecting Adolescents and Youth Friendly Reproductive Health Services among Secondary School Students in Hadiya Zone, Southern Nations, Nationalities and Peoples Region, Ethiopia. *Int J Public Heal Saf [Internet].*, 2(6):1-7. Available from: <https://www.omicsonline.org/open-access/utilization-and-factors-affecting-adolescents-and-youth-friendlyreproductive-health-services-among-secondary-school-students-inhad.pdf>
- Kamau AW. 2006. Factors Influencing Access and Utilisation of Preventive Reproductive Health Services by Adolescents in Kenya. a Case Study of Murang'a District;(January).

- Khatiwada N, Silwal PR, Bhadra DR, Tamang TM. 2013. Sexual and Reproductive Health of Adolescents and Youth in Nepal: Trends and Determinants.
- Melaku YA, Berhane Y, Kinsman J, Reda HL. 2014. Sexual and reproductive health communication and awareness of contraceptive methods among secondary school female students, northern Ethiopia: A cross-sectional study. *BMC Public Health* [Internet].;14(1):1–11. Available from: [BMC Public Health](https://doi.org/10.1186/s12916-014-0111-1)
- Negash W, Dessalegn M, Yitayew B, Demsie M, Wagne M, Nyagero J. 2016. Reproductive health service utilization and associated factors: the case of north Shewa zone youth, Amhara region, Ethiopia. *Pan Afr Med J*, 25(Supp 2):3.
- Odo AN, Samuel ES, Nwagu EN, Nnamani PO, Atama CS. 2018. Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: A mixed methods approach. *BMC Health Serv Res.*,18(1):1–12.
- Okigbo, C. C., & Speizer, I. S. (2015). Determinants of Sexual Activity and Pregnancy among Unmarried Young Women in Urban Kenya: A Cross-Sectional Study. *PloS one*, 10(6), e0129286. doi:10.1371/journal.pone.0129286
- Sarwono SW. 2011. *Psikologi Remaja*. Jakarta: Raja Grafindo Persada;.
- Sugama J STRIWESRSKRTATN. 2016. Prevalence of factors related to active reproductive health behavior: a cross-sectional study Indonesian adolescent. *Epidemiol Health.*;38:e2016041.
- Tucker, J. S., Ryan, G. W., Golinelli, D., Ewing, B., Wenzel, S. L., Kennedy, D. P., ... Zhou, A. (2012). Substance use and other risk factors for unprotected sex: results from an event-based study of homeless youth. *AIDS and behavior*, 16(6), 1699–1707. doi:10.1007/s10461-011-0017-9
- UNFPA, UNESCO, WHO. 2015. *Sexual and reproductive Health of Young People in Asia and the Pasific*.
- WHO. 2010. *The sexual and reproductive health of young adolescents in developing countries: Reviewing the evidence, identifying research gaps, and moving the agenda*. Rep a WHO Tech Consult [Internet].;1–17. Available from: www.who.int/reproductivehealth