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# Identification factors affecting adolescent's reproductive health behavior: A qualitative study



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## ABSTRACT

**Introduction:** Sexual risk behavior is mostly conducted by adolescents when the puberty started. The motivations underlies such behavior are varied including those related to individual, peers, family, and the environment. Therefore, this study aimed to explore the factors that affect adolescent's reproductive health behavior.

**Methods:** This study used qualitative method with purposive sampling on high risk and low risk adolescents. Exploration was conducted in accordance with several behavior theories such as Ecological Model of Health Behavior, Problem Behavior Theory and Integrated Behavior Model. Data collection was conducted by in-depth interviews in 2018 at Banyumas District. The results of the interviews were then analyzed by content analysis technique.

**Results:** According to the results of content analysis, we found that reproductive behavior among adolescents was affected by two broad categories of factors namely individual internal factors and external factors. Individual internal factors were including age related risk, self-helplessness, knowledge, attitude, perceived norm, and lifestyle. External factors were determined by negative influence of peers, family, and environment risk. Peers, family, lifestyle and external factors seemed to influence personal values which could act as risk factor or protective factor depending on the nature of those factors involved.

**Conclusion:** This research revealed that reproductive health behavior among adolescents was influenced by multiple factors that interact with one another.

**Keywords:** adolescents, reproductive health, sexual risk, behavior, puberty

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## INTRODUCTION

In the growth and developmental process, adolescents will pass through puberty. Puberty is defined as the period of transition from children to adults.<sup>1</sup> According to Adams et al.,<sup>1</sup> reproductive health problems are the most common problems in adolescents during the puberty period. Reproductive health is a state of perfect health both physically, mentally, socially, and not just free from disease or disability in all aspects related to the reproductive system, including its functions and processes.<sup>2</sup> Insufficient reproductive health knowledge among adolescents could bring a grave effect as reported by Yu et al.<sup>3</sup> who stated that around 88.9% of adolescents were pregnant and had an abortion. A cohort study by Erhamwilda<sup>4</sup> found that the serious effects of sexual intercourse during adolescents included feeling guilt, depression, anger, impaired reproductive health and the risk of an unwanted pregnancy. National Population and Family Planning Board of Indonesia's data<sup>5</sup> showed that the impacts include unwanted pregnancy, abortion, sexually transmitted diseases (STDs), HIV/AIDS and even death.

Adolescents who experience reproductive health problems begin with conducting a sexual risk behaviors.<sup>6</sup> Pilgrim et al.<sup>7</sup> found that a third of adolescents in the UK have had sexual intercourse (starting from 11 years old among boys and

14-15 years old among girls). Olugbenga et al.<sup>8</sup> also found that around 14.1% of adolescents had their first sexual experience before age 15 years old. A similar study by Santa et al.<sup>9</sup> succeeded in revealing dating behavior among adolescents that had had sexual intercourse. Triyanto's pilot study, through interview with adolescents in Banyumas, revealed that 4 out of 10 adolescents claimed to have had sexual intercourse with their boyfriends/girlfriends.<sup>10</sup>

The underlying reasons behind risky sexual risk behaviors among adolescents is very complex and diverse. Based on a systematic review conducted by Pilgrim et al.,<sup>7</sup> who were collecting research since 1998, revealed a diverse arrays of risks and protective factors that contribute to adolescent reproductive health. Pilgrim described previous studies that have been conducted ranging from adolescents individual factor, peers, family, media, education, economy, culture, society and government factors. Meanwhile, Raj et al.<sup>11</sup> found a slightly different contributing factors including socioeconomic, level of education, culture, family structure and lack of utilization of health services. Research by Markham et al.<sup>12</sup> and Marston et al.<sup>13</sup> stated that the risk factors for adolescent reproductive health were influenced by family conditions, general

communication between parents and adolescents, sexuality communication. Poutiainen et al.<sup>14</sup> found the other risk factors were parental monitoring, peers pressure, school connectivity, and community resources. With many risk factors that could negatively affect adolescent reproductive health, it is reasonable to consider adolescents as vulnerable groups.<sup>15</sup>

Risk factors for adolescent reproductive health are always changing along with technology developments and cultural shifts. The living conditions of adolescents living in foreign countries could be different compared to those who live in Indonesia.<sup>16</sup> The results of systematic review of previous research on the risk factors of adolescent reproductive health and protection showed that there were still some weaknesses that affect the validity of previous study or current statistics including an unknown relationship and interaction between factors; no comprehensive instruments; unknown form of community support; no study about access to health services; and using only one sampling location or only one theory. Therefore the purpose of this study was to identify risk factors of adolescent reproductive health behaviors in Banyumas district, starting from the dimensions of individual adolescent, peers, family, and environment.

## METHODS

This study used qualitative approach with purposive sampling technique on high risk and low risk adolescents. Exploration was conducted in accordance with several behavior theories such as Ecological Model of Health Behavior, Problem Behavior Theory and Integrated Behavior Model. Data were collected by in-depth interviews in 2018 and analyzed by using content analysis method. Research samples were taken by purposive sampling with inclusion criteria including: aged 10 to 19 years old, had shown a sign of puberty and willing to be a participant. Qualitative research was not determined by the exact number of participants but depend on the saturation factor.<sup>17</sup> Research samples were adolescents living in the urban and rural areas of the Banyumas District.

## RESULTS

Based on the results of *content analysis* from the results of interviews conducted on adolescents who met the research criteria, several themes were obtained. These themes will be described based on risk factors and protective factors of reproductive health behaviors.

### Theme 1 : Internal Factors

The first theme of this study was individual internal factors. This was evidenced by the results of the interview quote below.

“... I used to be bad people and like to drink alcohol... (P1)”

“... don't know why, if I see people doing that, I feel disgusted... (P2)”

“... if, someone never pray, it will be very easy to do it... (P3)”

The two quotes from the interview were classified as risk factors for adolescent reproductive health behaviors. As stated by Participant 1 who now lives far from parents, claims to have had free sex because he used to have a dark past experience and economic problem. On the other hand, the quote of Participant 2 was regarded as reproductive health protection factors. This adolescent who has 2 younger siblings admitted that she did not want to be invited by her boyfriend to have free sex because of her internal believe. She feels disgusted if she sees pornographic scenes. Her attitude becomes her stronghold to not obey the invitation of her boyfriend. The third participant with a history of broken home stated that the desire to conduct high risk behavior was being influenced by religious factors.

“... I am afraid of being left by my boyfriend, because I really love ... (P3)”

“... I am worried that he will leave me in the future with another girl... (P4)”

Participant 3 and Participant 4 were unable to refuse her boyfriend's invitation to have sexual activity. They are worried that they will be abandoned by their boyfriend, if they reject the invitation to have sex. They feel not confident and think that there are other men who want to accept it. The helplessness of adolescents was shown as a feeling of fear of termination of their current relationship, if she does not follow her boyfriend's will.

“...I kiss like that... it's normal... love each other so I am willing to do it... (P3)”

“...I do it, really like it, you can't be wronged... (P4)”

Teenagers who often watch porn movies, consume addictive substances, hangouts at cafes were at risk of having risky sexual behavior which eventually increased their risk of contracting sexual-related diseases. Participant 3 and 4 felt

that when teenagers love each other, then having sex is not wrong. They assume that adolescence is the freest time to engage in sexual activity before they get married. Two teenage girls admitted that now dating behavior with sexual activity is quite common. Because there are teenagers who have lost their virginity and are not pregnant, they tend to repeat sexual intercourse several times.

## Theme 2: External Factors

The influence of peers is the most important factor that contributes to reproductive health risk behavior among adolescents. The following are examples of quotes from interviews with participants who attended private schools in Banyumas.

“... hmm... promiscuity usually is a friend's suggestion ...I will keep being mocked if I don't do it... you are outdated, aren't you? Yeah, something like that... (P5)”

“... Yes, unfavorable friendship... yes, I like to go out at night... being outside, never think about time... keep forgetting the house, sir... (P6)”

“... nowadays,... he was wrong sometime because he persuaded me to do it ... and I didn't want to... I was forced but I didn't want it... (P4)”

“... When he asked me to do it, then it is just human nature, how could I refuse him... I love him, if I refuse; he will leave me with another girl ... (P3)”

Peers can have a positive influence, but they can also have negative impacts. For examples, the quotes of the 5th and 6th Participants indicated that peers have negative effects. In the beginning, these two adolescents had a boyfriend because of their desire to be similar as their friends who also had a boyfriend. Interest with the opposite sex is physiological due to hormonal development during puberty as revealed by the 3rd Participant. However, if choosing wrong friends, it could lead to promiscuity. She was afraid that if she did not follow her boyfriend's will, the relationship would be broken. In contrast, the 4th participant was able to reject a friend's negative suggestions. Adolescents who live in this village were more vigilant and sought to preserve the family name and dignity. Although, she already had a boyfriend, she dared to refuse when her boyfriend wanted sexual intercourse.

Family integrity and the functioning of the parent's role will influence the behavior of their children. Parents often become figures that their children follow because the main and the closest environment of adolescents is family. Both the bad and good attitudes and behavior of their parents are proven to contribute to children's behavior. As

revealed by the following two participants in the quote of the interview.

“... No... my mother not restrain me ... it's up to me, more importantly at least I go to school... (P1)”

“... so what happens is I feel lack of affection from my mother and father .... they have been separated from the house since I was grade 1... my father always thinks of his new wife and my mother also doing so (P3)”

“... my father also have a hard character and often drunk too, and I was constantly scolded by my mother... (P4)”

Comparison of the number of cases of adolescents who conducted risky reproductive behaviors between those who are student in public or private schools was almost similar. This phenomenon cannot be separated from the presence or absence of health promotion programs conducted in schools. As described by one of the teacher counseling guidance and experience of students in the following interview quotes.

“... conducting a socialization... there isn't any, there's nothing like that, I still wondering why the government didn't investigate the existence of abortion drug-sellers, why it's not eradicated yet... (P3)”

“... there is no such thing... I am not in this school ... because there is really no such thing in the structure... (P7)”

The environment where adolescents live is very influencing toward their reproductive health. This environment can be physical or social environment. The advancement of science and technology, especially in the form of extensive and easy internet access affect adolescent behavior in general, especially those related to reproductive health. In this case, supervision is needed from parents and the surrounding community. Community concern for the social activities of local communities can certainly be a control. Here are some quotes from interviews related to environmental factors.

“... I used to be the usual young teenager who out until late in the night and finally stayed there at his house. Then it's happened... but it didn't bleed... (P1)”

“... the influence of the internet also continues in the environment... an environment without sufficient attention ... continues to be arbitrary... (P4)”

“...there is a prohibited rule... we can't, sir... (P5)”

## DISCUSSION

This study found various reports related to sexual behavior among adolescents. The adolescent who has 2 younger siblings admitted that she did not want to be invited by her boyfriend to have free sex because of her internal factors. However, others are worried that they will be abandoned by their boyfriend, if they reject the invitation to have sex. On the other hand, teenagers who often watch porn movies, consume addictive substances, hangouts at cafes are at risk of having risky sexual behavior with a tendency to be promiscuous. Habits of having risky sexual behavior with boyfriends or girlfriends are considered as reproductive health risk factors. Nevertheless, one of participants claimed to have had free sex because he used to have a dark past experience and economy hardship. Bad past experiences can affect current risk behavior as reported by Rudatini et al.<sup>18</sup> that bad past experiences can affect current risk behavior.

Likewise, the economic factor, for example if teenagers are used to appropriate life but then had economic problem, could also be a driving factor that could give an economic motivation to them to conduct a risky sexual behavior. This finding is in accordance with reports by Mchunu<sup>12</sup> who found that the risk factors for adolescents pregnancy were unfavorable sexual attitudes (33%), unemployment (42%), drug users (24%), and starting sexual intercourse before 15 years old (25%). In addition, Capaldi et al.<sup>19</sup> found that adolescents who are unemployed were more likely to have sexual intercourse and even become commercial sex workers. In depression cases, the aggressive nature of adolescents and high self-efficacy will increase their sexual activity.<sup>20</sup>

Participant with a broken home history stated that the desire to conduct high risk behavior was being influenced by religious factors. Haglund<sup>14</sup> found that Muslims, if they do not perform regular prayers, then they are more likely to engage in prohibited activities. The closeness to God influences their attitude and behavior.<sup>21</sup> High level of religious is believed to be the main protective factor for improper sexual activity. Meinck et al.<sup>21</sup> found that adolescents who often attend religious activities were far fewer involved in improper sexual activity. Conversely, adolescents who rarely or even never follow religious activities had higher potential to have sexual activity with peers or adults. The teachings of religions in general do not allow sexual activity outside of legal marriage.

One of our teenager correspondences said that she feels disgusted if she sees pornographic scenes. This attitude could act as stronghold for her to resist the invitation from her boyfriend. Attitudes

are internal factors that contribute to one's behavior.<sup>22</sup> Mchunu et al.<sup>23</sup> found that a positive attitude will also produce positive behavior. This research analysis was supported by the concept of Problem Behavior Theory by Jessor which explains several variables of the domain of personality system such as values, hopes, beliefs, attitudes, and orientations towards self and society. Furthermore, the system could determines personal behavior. Integrated Behavioral Model theory also explained that a person's behavior is influenced by three construct categories, namely: attitude, perceived norm, and personal agency.<sup>24</sup> Attitude is someone's evaluation of the benefits and loss if they perform certain behavior.

However, if teenagers choose wrong friends, it could lead to a negative extreme of sexual behavior such as promiscuity. One of the respondents said that she was afraid that if she did not follow her boyfriend desire, their relationship would be broken. This finding is in accordance with the research by Morrison et al.<sup>25</sup> who found that boys are major contributors to sexual behavior among adolescents. Similar study by Mason et al.<sup>26</sup> also found that there were 12 studies describing a man who first invited to engage in sexual activity and even had more than one partner.

One of important adolescent reproductive health factors evaluated by Yu et al.<sup>3</sup> was peer pressure and they found that it could influence adolescent sexual activity. Teenagers are afraid of getting mocked by their peers if they do not engage in similar activity or habit, in this case, promiscuity. Tharp et al.<sup>27</sup> study found that adolescents begin to put friends who have same desire or habits as part of their life. Some adolescents will be provoked to join an "alley" as an association among friends with the same age. In fact, teenagers in Uganda will be mocked and considered strange if they do not have a partner or boy/girl friend.<sup>28</sup> In accordance with qualitative studies conducted by Santelli *et al.*,<sup>28</sup> it was stated that young men tend to see sexual intercourse as prove of mutual love. Thus, it can be said that peer pressure contributes to free sex. Some of them feel that their friends will make fun of them if they never have sex. A qualitative research successfully revealed adolescents who reported that peer pressure played an important role in their involvement in sex.<sup>29</sup>

In contrast, the 4<sup>th</sup> participant was able to reject a friend's negative request. Adolescents who live in village tend to be more vigilant and maintain family name and dignity. Although, she already had a boyfriend, she dared enough to refuse when her boyfriend asked her for sexual intercourse. The

ability to resist is the protective factor of adolescent reproductive health.<sup>30</sup> The adolescent ability is supported by religious factors, love for family, and psychological condition of adolescents.<sup>29</sup> According to Kirby et al.,<sup>31</sup> the psychological condition of adolescents can be a determining factor whether an adolescent will fall into free sex or not. These conditions include aggressive behavior, experiencing symptoms of depression, and high self-efficacy.<sup>32</sup> The authors concluded that an adolescent who had peers with an active history in sexual behavior could be tempted to do similar activity and, thus, have a higher risk toward improper reproductive behavior. Conversely, if the peers were those with high achievers and active in organizational activities, they could be a protective factor for the adolescents themselves.

Excessive freedom without parental control will also have a negative impact. Baumgartner et al.<sup>33</sup> found that adolescents with a million imaginations in their minds tend to try to find ways and opportunities to meet their partner and doing sexual activity. If parental supervision on their children is insufficient, it could provide an opportunity for adolescents to engage in sexual activity. Therefore, parental communication to adolescents, even though they do not live in the same house as their parents, is an important point that must be considered.<sup>34</sup> As proven in a study conducted by Murry et al.<sup>35</sup> which explains that the quality of communication between parents with children is associated with a reduced risk of sexual activity. Poor parent communication with children increased the risk of improper sex behavior.<sup>36</sup>

The lack of affection from parents as perceived by the 3rd and 4th participant tends to drive adolescents who were broken home to adopt behaviors that suit their desires without consideration toward the consequences. This is consistent with a report by Rudatini et al.<sup>18</sup> who found that adolescents experiencing family violence, substance abuse, broken home or mental health problems were associated with the onset of adolescent involvement in sexual activity. Adolescents who have such history tend to have earlier start of relationships with friends of the opposite sex, having many sexual partners, and low tendency to use protective device such as condom.<sup>37</sup>

Other factors at the family level that influence adolescent involvement in sexual behavior are the inculcation of values from parents from earlier age.<sup>44</sup> In this case, the formation of the behavior of adolescents from young age is needed to fortify their children from negative influences related to sexual activity. Value delivery can be carried out through discussion between parents with children.<sup>38</sup> Most parents in Banyumas assumed that the parent-child

discussion about sex was “taboo”. This condition is certainly an inhibiting factor for parental education for children as described by Li et al.<sup>39</sup> that cultural factors and perceptions can become obstacles.

Knowledge and education are also important factors that influence personal attitude and behavior.<sup>40</sup> In this case the school is a determinant of the formation of student behavior. Schools that prioritize character building and morals of their students will certainly strictly compose applicable rules. Likewise, the curriculum that was compiled, especially local content, optimized education about religion and behavior. The expectation from the school is the achievement of increasing the quality of the religious level of all students. Such schools are actually dominated by favorite private schools, while public schools usually only refer to the national curriculum. On the other hand, there are also private schools that are loosely regulated and do not prioritize elements of character and behavior. As the result, there are high numbers of students who have problems with their academic or even dropout cases. In addition, the output of school graduates will also differ between favorite schools and ordinary schools. Like the results of Cotton’s research, Benotsch et al.<sup>41</sup> showed that adolescents who were not in school or dropped out of school were tend to have more free sex.

School should be an effective facility to build students’ character by delivering lessons on the values of wisdom and culture of the community. Research conducted by Olugbenga et al.<sup>8</sup> found that schools could be a protective factor of risky sexual behavior. A comprehensive school-based sex education program has been proven to delay sexual activity. Sex education can be delivered through sexual negotiation training, communication skills and reproductive health services. From this fact, it is clear that many schools influence adolescent reproductive health. Schools with lax rules can be risk factors for their student’s reproductive health and risky sexual behavior. Conversely, schools that promote student morals and behavior, reflected in their local content curriculum, can be a protective factor for adolescent’s reproductive health.<sup>14</sup>

Adolescents who live in areas with modern society that have had a cultural shift were also at higher risk for free sex. In addition, adolescents who live in boarding houses or dormitories according to research by Banun et al.<sup>34</sup> tended to have a greater risk of premarital sexual behavior compared to adolescents who live together with parents. Triyanto et al.<sup>42</sup> reported that adolescents with a troubled family history have twice the risk of premarital sex. In fact, adolescents with a luxurious lifestyle have five times greater risk of premarital sex than those with modest lifestyle.

The influence of luxurious lifestyle, the number of nightspots and “hanging out” places trigger adolescents to do whatever they want with their partners. In addition, adolescents with a divorced parent are more at risk for free sex. Indirectly, parental behavior becomes a reference for children’s behavior when they reach adolescence. In big cities, the individualized life becomes a fertile field for adolescents to do everything they want. Supported by the absence of a deterrent effect on perpetrators, adolescents tend to justify risky sexual practices.<sup>27</sup>

The influence of adult behavior with various cultures that mingle together in everyday life becomes a trigger for adolescents to engage in risky sexual behavior. Like the research conducted by Banunet.al,<sup>34</sup> adults influence sexual behavior of adolescents in 55.2% of cases. Pilgrim et al.<sup>7</sup> found that risky behaviors were influenced by lifestyle (77.4%), living area (47.5%), and family harmony (65.2%). In this study, it was explained that there was a significant relationship between premarital sexual behavior and living area, family harmony and community lifestyle.

## CONCLUSIONS

Based on the results of *content analysis*, it can be concluded that adolescent reproductive health behavior was influenced by several important factors that can be categorized into individual internal factors, peers, parents, school, and environmental. These five categories can be both risk factors and protective factors. Internal individual factors are determined by gender factors, level of religion, knowledge, attitudes, perceived norms, and psychological conditions of adolescents. Peers could strengthen the individual factors or against them, depending on the nature of the peers itself. Integrative and functional family can be act as protective factor, but if compromised, it can shatter personal value of the teenagers. In terms of factors within schools environment, health promotion seems to be a protective factor, driving the teachers to be more actively socializing sexual education and prevents students from engaging risky sexual behavior. However, this program is still absent in most of schools in Indonesia.

## RESEARCH LIMITATIONS

This study had limitation in terms of participants’ openness which was related to the privacy nature of the the data. The approaches within this study took quite a long time to establish a trusting relationship to enhance the openness of participants. In

addition, there was a tendency for female adolescents to be more open compared to male teenagers.

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## CONFLICT OF INTEREST

All authors declared that there is no conflict of interest regarding the publication of this article.

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## AUTHOR CONTRIBUTION

All authors contributed equally in writing this article.

## ETHIC APPROVAL

This study has been approved by research ethic committee of Universitas Gadjah Mada, Yogyakarta, Indonesia with letter number KE/FK/0342/EC/2018.

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