DETERMINANTS OF SEXUAL BEHAVIOR AMONG ADOLESCENTS IN LOMBOK ISLAND

Musparlin Halid1*

1Department of Medical Records and Health Information, Politeknik Medica Farma Husada Mataram, Mataram, Indonesia

Abstract:
This study aims to assess the risk factors for sexual behavior on adolescents in Lombok Island. The research used a cross-sectional design. Samples taken by purposive sampling at Junior High School (JHS) and Senior High School (SHS) in Lombok Island amounted to 415 students. Data collection using questionnaires. The variables measured are as follows: sexual behavior, gender, age, alcohol consumption pattern (liquor), cigarette consumption pattern, parental education level, parental divorce status, peer influence, and social media influence. Descriptive data analysis and Chi-square with significant level p < 0.05 and Odds Ratio (OR) with Confidence Interval (CI) 95%. There has been a strongly significant relationship between sexual behavior by sex, age, cigarette consumption patterns, alcohol consumption patterns, peer influence, social media influence, parental education level, and divorce status of parents (p < 0.05). The deviant behavior caused by internal and contextual environments leads to an increase in sexual behavior frequency.

Abstrak:
Penelitian ini menggunakan desain cross-sectional. Sampel diambil secara purposive sampling pada Sekolah Menengah Pertama (SMP) dan Sekolah Menengah Atas (SMA) di Pulau Lombok berjumlah 415 siswa. Pengumpulan data menggunakan kuesioner. Variabel yang diukur sebagai berikut: perilaku seksual, jenis kelamin, usia, pola konsumsi alkohol (minuman keras), pola konsumsi rokok, tingkat pendidikan orang tua, status perceraian orang tua, pengaruh teman sebaya, dan pengaruh media sosial. Analisis data deskriptif dan Chi-square dengan taraf signifikan p < 0.05 dan Odds Ratio (OR) dengan Confidence Interval (CI) 95%. Terdapat hubungan yang sangat signifikan antara perilaku seksual menurut jenis kelamin, usia, pola konsumsi rokok, pola konsumsi alkohol, pengaruh teman sebaya, pengaruh media sosial, tingkat pendidikan orang tua dan status perceraian orang tua (p < 0.05). Perilaku menyimpang yang terjadi akibat lingkungan internal dan kontekstual menyebabkan peningkatan frekuensi perilaku seksual.

How to Cite:

*Corresponding Author:
Musparlin Halid, Medical Records and Health Information, Politeknik Medica Farma Husada Mataram, Mataram, Indonesia. Email: musparlinhalid@gmail.com
INTRODUCTION

The growing physical and psychological condition of adolescents will have an impact on behavior change. Because of these conditions, the supervision and communication of parents with children will be relatively changed[1]. This fact will affect the behavior of adolescents, especially sexual behavior. Behavior changes were caused due to many factors that can support and support for sexual intercourse[2].

This behavior, driven by sexual stimulation, and can lead adolescents to behaviors that adversely affect the adolescent. Premarital sex may result in Sexually Transmitted Disease (STD)[3], Human Immunodeficiency Virus-Acquired Immune Deficiency Syndrome (HIV-AIDS), unmarried pregnancy, and unsafe abortion. In adolescence, there was often abuse of Narcotics, Psychotropic Substances, and Additive (NaPSA), usually followed by extramarital sexual intercourse with multiple partners, increasing the risk of contracting STD and HIV-AIDS[4].

Some behaviors fall into the light category of being attracted to the opposite sex, never dating even if only one time, dating in a quiet or private, had a brief kiss/wet kiss. For severe sexual behavior, there are some behaviors that are touched breasts, touched genital by a partner, performing oral sex, and intercourse[5].

Parents' communication with adolescents was very important in fostering the relationship of both. Parents who are less able to communicate with their children will lead to relationship conflict so can have an impact on adolescent sexual behavior. Parental monitoring prevents risky behavior from alcohol, sexual activity, delinquency and other harmful acts[6]. Adolescents have a unique character by the development of emotions that have not been stable to make adolescents more vulnerable to experiencing social turmoil. Facts have proven that parents’ neglect in supervising and communicating with their children contributes to the increase in risky sexual behavior, social problems, and criminal acts[1].

Factors that cause changes in sexual behavior in adolescents because of the supervision and attention of loose parents and family, free association patterns, a permissive environment, and the increasing number of things that provide sexual stimulation are very easy to find[7]. Changes in views that affect sexual behavior appear during courtship. Courtship has been interpreted to be a period to learn to perform sexual activity with the opposite sex, ranging from a light kiss, deadly kiss, mutual masturbation, oral sex, even sexual intercourse[8].

RESEARCH METHOD

This research is an observational research, using cross-sectional design[9]. This study discusses the factors causing sexual behavior problems in adolescents in Lombok Island based on some predetermined variables, gender, age, parental divorce status, parent's education level (father), cigarette consumption pattern, alcohol consumption pattern, peer influence, and social media influence.

The sample numbered 415 students from Junior High School (JHS) and Senior High School (SHS). The research was conducted from September 2016 until March 2017. The sample was taken using a purposive sampling technique consisting of 6 schools, namely JHS 15 Mataram, JHS 02 Mataram, JHS 03 Mataram, SHS 02 Mataram, SHS 03 Mataram, and SHS 04 Mataram. Data collection using an instrument to research subjects (questionnaire).

The study was approved by the Medical and Health Research Ethics Committee (MHREC), Polytechnic of Medica Farma Husada Mataram, Indonesia (with MHREC No. Pol-MFH-MTR.MHREC.376.05.2016). The study was conducted after obtaining approval from the respondent by signing the
informed consent, before the respondent was given an explanation of the research objectives and the participatory part. Any information provided by the respondents was guaranteed to be confidential by the researcher, and only certain data groups are appropriate to the research needs reported by the researcher. The code and subject of the study are kept secret from the public.

**Procedure**

The technique of collecting data using the instrument in the form of questionnaires that researchers distribute to respondents. The data used in this research were primary and secondary. Primary data include individual characteristics such as gender, age, parental education level, alcohol consumption level, cigarette consumption pattern, sexual behavior, peer influence, social media influence, and parental divorce status. Individual characteristic data was obtained by filling out questionnaires filled by respondents. Questionnaires were filled out after the respondents got an explanation. Before to data collection, the researcher gave a brief explanation of the intent and purpose of the study. Secondary data includes data on the number of students found in Lombok Island obtained from the Department of Youth and Sports Education (DIKPORA) West Nusa Tenggara Province, Indonesia.

**Measures**

1. **Sexual Behavior**

   Sexual behavior was defined as any behavior or activity that adolescents do during courtship to meet sexual desire with the opposite sex. Categories were divided into 2 (two), namely 1) Heavy: consists of 4 behaviors (touched breasts, palpable genital by partner, perform oral sex and intercourse) if the answer to the questionnaire adolescent ever do one or all of the above behavior, then categorized as heavy sexual behavior and 2) Light: consists of 5 behaviors (interested or fancied at the opposite sex, dating at least 1 time, dating in solitude or personal, short kisses and wet kisses) when performing any or all of these activities, then categorized as mild sexual behavior.

2. **Parental Divorce Status**

   Parental divorce status was categorized into 2 (two), namely: 1) divorce: parental status does not live together for divorce reasons (in this case is meant divorce live) and 2) not divorced: parental status still alive together or still a husband and wife (although not living together, for example for reasons of work).

3. **Parental Education Level**

   The level of parent’s education (father) is the level of education ever taken by the parents of respondents. Parenting education courses are as follows: ES, JHS, SHS, vocational programs, undergraduate programs, master or program specialists and doctoral programs. Further education was categorized into 2 (low education: <SHS and high education: ≥ SHS)

4. **The Pattern of Cigarette Consumption**

   The pattern of cigarette consumption is the number of cigarettes smoked or consumed by adolescents in one liver and categorized into 2 (two), namely: > 10 cigarettes/day, if adolescents consume cigarettes more than 10 cigarettes a day and < 10 cigarettes/day, consuming less than 10 cigarettes a day.

5. **Pattern of Alcohol Consumption (Liquor)**

   The pattern of alcohol consumption is the number of liters of alcohol taken or consumed by adolescents for 1 week and categorized into 2 (two), namely: > 3 liters/week, if adolescents consume liquor (alcohol) more than 3 liters in 1 week and < 3 liters/week, if adolescents consume liquor (alcohol) less than 3 liters in 1 week.
6. Peer Influence
In this case, it concerns the influence, support and abstinence to conduct sexual behavior and categorized into 2 (two), namely "Yes and No".

7. Social Media Exposure
Social media exposes were images or videos that highlight the body or human genitals, resulting in sex drive (video, handphone, internet (Facebook, Whatsapp, etc.), books, magazines, comics and others). Adolescents are categorized as "Exposed" if in the questionnaire, adolescents respond with points 1 (daily), 2 (more than 1 time a week), 3 (once a week), 4 (once a month) or (on their own). Categorized "Not exposed" if the answer questionnaire, respondents answered never.

Statistical analyses
After the data obtained from the questionnaire, then proceed with data processing with the steps as follows:
1. Editing
After completion of the research, then editing the questionnaire that has been collected before performing the coding and entry data. This is done to see if there is an incomplete questionnaire. For an incomplete questionnaire, it will be replaced by another questionnaire with complete data.

2. Coding
After the questionnaire was confirmed there was no missing, then do the coding of variables that were measured.

3. Data Entry
Data entry was performed in Microsoft Office Excel 2007 to provide labels and codes.

4. Cleaning
Data cleaning stage was done before data analysis, by identifying the variables that are still wrong. Cleaning data is still done if still known data that is still wrong.

RESULTS AND ANALYSIS
Based on descriptive analysis result shows that heavy sexual behavior in adolescence tends to be higher (57.8%) occur in Lombok Island and light of 42.2% (Table 1).

Table 1.
Frequency Distribution of Respondent Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td>240</td>
<td>57.8</td>
</tr>
<tr>
<td>Light</td>
<td>175</td>
<td>42.2</td>
</tr>
<tr>
<td></td>
<td>415</td>
<td>100</td>
</tr>
</tbody>
</table>

Results of data analysis on the Table 2 shows that there was a significant relationship between sexual behavior in adolescents by sex with p < 0.05 (OR: 3.69; CI 95%: 2.45–5.56). Men were more dominant to have sexual intercourse amount 54.2% (n = 225). Men have 3.69 times (almost 4 times) higher chances to have sexual behavior than women. In addition, there was a significant relationship between age difference and sex behavior in adolescents with p < 0.05 (OR: 3.58; CI 95%: 2.36-5.43). Adolescents aged
17-19 years were more dominant to have sex amount 53.3% (n = 221). Adolescents aged 14-16 have a 3.58 times higher chance of having sex than adolescents age 17-19 years.

The pattern of cigarette consumption has a significant relationship with sex behavior in adolescents with p < 0.05 (OR: 3.47; CI 95%: 2.30-5.22). Adolescents who consumed cigarettes > 10 cigarettes/day were more dominant to have sex amount 52.3% (n = 217). Adolescents who consumed cigarettes > 10 cigarettes/day had a 3.47 times higher chance of having heavy sex than adolescents who consumed cigarettes < 10 cigarettes/day. There was a significant correlation between parental education level and sex behavior in adolescents with p < 0.05 (OR: 3.57; CI 95%: 2.37-5.38). Adolescents who have parents with low education levels were more dominant to have sex amount 53.3% (n = 221). Adolescents who have parents with low education levels have a 3.57 times higher chance of having sex than adolescents with high parental education levels (Table 2).

### Table 2.
**Determinants of Sexual Behavior in Teens on Lombok Island**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sexual behavior</th>
<th>Total (N=415)</th>
<th>$\chi^2$</th>
<th>p</th>
<th>OR (CI 95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heavy</td>
<td>Light</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>162 (39%)</td>
<td>225 (54%)</td>
<td>40.45</td>
<td>.000*</td>
<td>3.69</td>
</tr>
<tr>
<td>Female</td>
<td>78 (18.8%)</td>
<td>190 (45.8%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>14 – 16 years</td>
<td>143 (34.5%)</td>
<td>37.67</td>
<td>.000*</td>
<td>3.58</td>
</tr>
<tr>
<td></td>
<td>17 – 19 years</td>
<td>97 (23.4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cigarette Consumption Patterns</td>
<td>&gt; 10 cigarettes/day</td>
<td>156 (37.6%)</td>
<td>36.85</td>
<td>.000*</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>&lt; 10 cigarettes/day</td>
<td>84 (20.2%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Education Level</td>
<td>Low</td>
<td>159 (38.3%)</td>
<td>38.62</td>
<td>.000*</td>
<td>3.57</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>81 (19.5%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Consumption Patterns</td>
<td>&gt; 3 liters/week</td>
<td>150 (36.1%)</td>
<td>33.54</td>
<td>.000*</td>
<td>3.27</td>
</tr>
<tr>
<td></td>
<td>&lt; 3 liters/week</td>
<td>90 (21.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Influence</td>
<td>Yes</td>
<td>162 (39%)</td>
<td>52.78</td>
<td>.000*</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>78 (18.8%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Media Influence</td>
<td>Exposed</td>
<td>164 (39.5%)</td>
<td>31.75</td>
<td>.000*</td>
<td>3.16</td>
</tr>
<tr>
<td></td>
<td>Not exposed</td>
<td>76 (18.3%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Divorce Status</td>
<td>Divorced</td>
<td>182 (43.9%)</td>
<td>61.15</td>
<td>.000*</td>
<td>5.18</td>
</tr>
<tr>
<td></td>
<td>Not divorced</td>
<td>58 (14%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: $\chi^2$ = Chi-Square, OR = Odds Ratio, p = p-value, CI 95% = Confidence Interval 95% * = Significant

Based on the results of data analysis in the Table 2 explained that there was a significant relationship between alcohol consumption patterns with sexual behavior in adolescents with p < 0.05 (OR: 3.27; CI 95%: 2.17-4.92). Adolescents who consumed liquor > 3 liters/week were more dominant for sex behavior amount 50.4% (n = 209). Adolescents who drink > 3 liters/week have a 3.27 times higher chance of having sex than adolescents who drink < 3 liters/week. There was a significant
relationship between the peers influence with the level of sexual behavior in adolescents with p < 0.05 (OR: 4.53; CI 95%: 2.98–6.88). Adolescents affected by peers were more dominant to have sex amount 52.3% (n = 217). Adolescents who were affected by peers have a 4.53 times higher chance of having sex than adolescents unaffected by peers.

There was a significant relationship between the influence of social media with sex behavior in adolescents with p < 0.05 (OR: 3.16; CI 95%: 2.10–4.74). Adolescents exposed by social media have a 3.16 times higher chance of having sex than adolescents not exposed to social media. In addition, there was a significant relationship between the divorce status of parents with the level of sexual behavior in adolescents with p < 0.05 (OR: 5.18; CI 95%: 3.38–7.92). Adolescents who divorced their parents were more dominant to have sex amount 59.8% (n = 248). Adolescents who divorced their parents have a 5.18 times higher chance of having heavy sex than adolescents whose parents were not divorced (Table 2).

Risk factors for adolescents to have sexual intercourse vary widely, as has been described in this study. Similar studies suggest that about a quarter of adolescents have sex, most often boys. Among adolescents who declared sexual initiation, most had their first sexual relationship with the age of 13 years or younger. Almost 21% did not use protection during sex. The greater of risk factors number involved, the higher the rate of sex incidence using protection or not using condoms[10] [11] [12]. The results of this study were similar to this study explaining that the differences in sex was very influential on behavioral aberrations, especially sex behavior in adolescents. The relationship between behavioral disorders, alcohol consumption [12] [13], drug abuse[14] tobacco used[15] with higher sex acts was found in adolescent boys. This is an important contribution to our understanding of the gender-specific manifestations of behavioral disorders, and has the potential to inform examination efforts and interventions for adolescent[16].

The level of parents education has a very strong relationship with the incidence of adolescents who have sexual intercourse. However, although parental education is high sometimes in discussing sexual problems, parents feel less well-informed. Sometimes parents feel they do not have enough knowledge about sexual problems. Because of these feelings or presuppositions, the child's judgment of parents is not an expert on topics related to sexuality. Finally, adolescents prefer to seek information to mass media or peers. This was worsened by the view of parents that sexual problems are a taboo issue to discuss in the family[17].

In addition, it is a factor that causes parents not feel comfortable or feel do not have enough knowledge about the topic of sexuality to be explained to the son of his daughter. Generally, respondents never discuss sexual issues with parents, because it is considered taboo or disrespectful. Adolescents often do not receive adequate reproductive health education from their parents, even though their parent's education is high. This is due to: 1) more parents outside the home due to working parents, 2) parents are still ashamed to talk about reproduction health in adolescents because they still think taboo sex is to be talked about; and 3) the limitations of information parents have on adolescent reproductive health education. The presence of uncomfortable feelings and perceived taboos from respondents, as well as parents who are often outdoors, parents feel do not have enough knowledge about the issue of sexuality, finally the explanation of parents not obtained by adolescents[18].

Peers affect the lives of adolescents. Peers provide support for romantic behavior as well as in making sexual decisions. When adolescents association
contributes to the influence of bad friends, while the resistance within them is not strong, then adolescents will be easily affected[19]. It is also very reasonable because adolescents want to be accepted into groups, although what they do may be contrary to religious teachings and parental counsel. In sexual matters, if an adolescent does not get enough information from a parent, then adolescents escape is a medium like an internet or television (TV) and friends[20]. Some adolescents think that friends are an essential source of information. If peer knowledge is inadequate about sexual health, then adolescents can get the wrong information[21].

Adolescents in early puberty were more interested in watching the content-sexual from movies, TV, music, and magazines than young adults[22]. Impressions and sexual conversations in the movies, music, and magazines they get will make adolescents mature faster sexually[20]. Even worse when they get messages from media content that allows adolescents to have sex before marriage. Adolescents also consider mass media a great information giver, especially in sexual matters[23].

The influence of mass media on adolescents can not be avoided anymore, especially since adolescents have been exposed to sexually explicit websites (SEW). Adolescents who have been exposed to pornographic content on the internet have the potential to have sexual intercourse. Furthermore, it is mentioned that adolescents who have been exposed to pornographic content on the internet usually have multiple sexual partners, use alcohol, perform anal sex, and have a permissive attitude toward sexual behavior compared to adolescents who are not exposed to SEW[24].

Girls ages 14-18 years who are exposed to pornographic films have more boyfriends, have more frequent sexual intercourse, do not like to use condoms and many are infected with chlamydia. In this study mentioned that the mass media as a medium of information in addition to containing the value of benefits/positive, sometimes inadvertently become a very powerful medium in providing negative information such as inappropriate sexual information for adolescents[25].

The issue of divorce in the Province of West Nusa Tenggara, especially in the Lombok Island as if it has become a common tradition in the community. Having a stepparent or half-brother is commonplace for adolescents on the Lombok Island. Many factors that make the tradition of divorce marriage on the Lombok Island. The marriage-divorced tradition on the Lombok Island was caused by several main factors, among others: economic factors, cultural factors of society, factors of marriage at a young age, religious factors and educational factors. The problem of marriage divorce raises various problems in parents and children who are victims of divorced parents[26].

Theoretically, family integrity affects adolescent behavior. A father will be a role model for adolescent (boys) and mothers to be role models of young women. Parental behavior is an example for they are child, generally a troubled adolescent comes from a family that is not intact. In a family context, living with only one or with no parent and low parental supervision increases the frequency of sex[10].

Adolescents from families who are divorced often get into conflict with their parents, behave disobediently, have lower self esteem and often have problems in relation to the opposite sex. Furthermore, it was found that divorce also affects the heterosexual behavior of girls. Adolescents who do not have fathers usually behave in one of the most extreme ways to men. Shy, rigid and distant young women are usually from families whose fathers are dead. As for those looking for male attention, exhibiting heterosexual behavior is too early and looks more open and does not keep a distance from men, more often coming from a divorced family. The result
is that adolescents who come from divorced families tend to get married at a younger age and choose couples who tend to have a history of poor work and drug problems[27].

Family factors affect the incidence of severe risk sexual behavior in adolescents. Divorced parents and poor communication between parents and adolescents, related to the incidence of adolescent pregnancy. This is inversely proportional to the condition of adolescent families who do not experience pregnancy. In non-pregnant adolescent families found higher parental education levels, both parents work to meet the needs, the same responsibility and authority to parents, family problem solving strategies, communication between parents and children and the high level of togetherness in the family. This condition is a factor affecting the behavior and psychological adolescents, because they feel getting attention, opportunity and togetherness with families, especially parents. All of the above factors will not be felt by a child/adolescent whose parents divorced [26].

When parents divorce was related to the development of reproduction. The story of the parents when the child is born until the age of 5 years, predicted to cause menarche earlier, first sexual intercourse, first pregnancy, and the short duration of the first marriage. Adolescent with divorced parents will have multiple sexual partners. Adolescents who live far away from parents, adolescents with single parents, family dysfunction, low maternal education and mothers who become parents as adolescents were significant factors in the incidence of adolescent pregnancy. Levels of adolescent risk behavior, including adolescent involvement in criminal, violence, use of drugs and alcohol as well as sexual risk, comparable to adolescents living with both parents at the lowest level of risk behavior, adolescents with single parent high-risk behavior levels and who the highest level of risky behavior in adolescents living with other than parents[28].

Parenting is a risk factor for serious sexual risk behavior. Various interactions between adolescents and parents can delay and even reduce the behavior of sexual intercourse in adolescents. The absence of supervision from parents will speed up a adolescent to have sexual intercourse. Adolescents overseen by their parents, adolescents with authoritarian parenting, adolescents who are from conservative families and hold strong traditions and have close relationships with parents will delay the age of first sexual intercourse. Parental control is an important factor that affects adolescent sexual behavior [8]. Adolescents who supervised their parents will delay even avoid sexual intercourse while in adolescents without supervision parents will have the first sexual relationship at an earlier age. Therefore, all these factors will start from complete family/whole family [28].

Parents should be able to provide enough time to interact and communicate openly about sexual problems with adolescents at home, and talk about any adolescent-related life, and can be good friends for adolescents. Therefore, the strongest fortress was creating a harmonious family and communication between adolescents and parents was demanded smoothly and qualified. Communication between family members was based on mutual attention, mutual respect for each other. In the end, adolescents can avoid risky behaviors such as sexual activity, drugs and other adolescent delinquency[19].

CONCLUSION

Sexual behavior in adolescents increased the frequency caused by internal factors and the environment. Youth adolescent care from family and social support was needed to minimize the prevalence of sex behavior in adolescents. Interventions need to be done in the form
of promotive and preventive efforts in counseling and education of adolescents to prevent STD or HIV-AIDS.

ACKNOWLEDGEMENTS
This research was supported by the Polytechnic of Medica Farma Husada Mataram and local governments of West Nusa Tenggara, Indonesia has provided assistance in funding this research with grant number 047/BAU/Poltek-MFH/IX/2016.

REFERENCES


