Research Article

Relationship between Parental Social Support and Menarche Readiness among Adolescents at Islamic Centre Binbaz: A Cross-sectional Study

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Abstract

Aims: This study aims to analyze the relationship between the social support of parents and the preparedness for menarche in adolescents.

Methods: This research uses quantitative research with a cross-sectional design. The study was conducted at the Islamic Centre Binbaz Elementary High School. The sample consisted of 50 respondents using the total sampling techniques. The instruments used were the social support questionnaire of parents and the preparedness for menarche. Bivariate analysis used the Spearman rho test.

Result: Parental support for menstruation in the negative category of 31 people (62%) and preparedness for menarche in female adolescents is as high as 35 people (70%). There is a relationship between social support of parents with menarche readiness with a p-value of 0.024 and a correlation coefficient (r) of 0.320.

Discussions: In reproductive health, especially regarding menarche, parents are expected to communicate better with their children about puberty issues, because it helps ensure healthy child sexuality. Focusing on building communication between parents and children, is an effective strategy for increasing overall support for children's health. Parental support in preparing children for menarche includes being an educator who provides complete and correct information about menstruation, maintaining hygiene during menstruation, and both physical and mental support when facing menarche.

Conclusion: This research indicates a relationship between parental social support and readiness for menarche in adolescents, with a weak correlation level and a positive correlation. This means that adolescents who have high parental support have a higher preparedness for menarche.

Keywords: Adolescents, Menarche, Parent, Social Support

INTRODUCTION

Adolescence is a transition period from childhood to adulthood characterized by physical, psychological, and social changes. Body changes during this period include appearance such as body shape, thought patterns, and maturity of sexual organs (1).

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The most visible changes in adolescents are enlargement of the breasts, enlarged hips and thighs, growth of hair around the armpits and genitals, increase in weight and height, and maturation of the genitals until menarche occurs (2). The chemical factors found to affect menarche were prenatal and antenatal smoke, phthalates, phenols, organochlorines, perfluoroalkyls and polyfluoroalkyls, metals, air pollutants, and polybrominated diphenyl ethers. Low or high exposure to each chemical compound could affect the age of menarche, leading to early or delayed menarche. There is evidence that endocrine-disrupting chemicals affect the age of menarche, but more research needs to be conducted (3).

According to (4) female students with an overweight BMI had an early menarche status of 28.6% and female students with an obese BMI had an early menarche status of 71.4%. From the results of statistical tests, it is known that the relationship between BMI and menarche age in respondents has a p-value of 0.000. According to (5) one-fifth of the world’s population, adolescents aged 10-18 years, experience menstruation. The age of menarche in Indonesia at the age of 12 years is 31.33%, at the age of 13 years it is 31.30%, and at the age of 14 years, it is 18.24%. According to (6) the average age of menarche in Yogyakarta is 12.5 years. With changes in the population's age structure, the number of teenagers will continue to increase.

An adolescent’s mental readiness to face menarche is needed when feelings of fear and anxiety arise when the child does not yet understand about menarche (7). Social support also influences an adolescent’s readiness for menarche, such as emotional support, information support related to menarche, and other support. This support can be from peers, the school environment, the community environment, and what is very important is support from family (8). The researcher identified a trend during a preliminary study on 15th February 2023 at the research site, that the total number of female students from classes V, and VI was 67 students, consisting of two classes in class V and one class in class VI, by interviewing 4 female students who 2 people were taken from each class regarding menarche. They said they did not know what to do when they first experienced menstruation. Parents, especially mothers had not provided information about menstruation and had not taught their children how to put on sanitary napkins. Students felt confused, afraid, and not ready to face the arrival of menarche. Factors that contribute to readiness to face menarche are knowledge factors, age factors, sources of information, attitudes, family support, nutritional status, and environmental factors (9). The role of teachers as educators is very important in providing an understanding of menarche, strategies and approaches applied. Modifying strategies in providing an understanding of menarche can help female students be better prepared to face these changes. Female students who receive education about menarche tend to be calmer and more positive in dealing with the physical and emotional changes associated with menarche, thereby improving their psychological well-being (10). From the explanation above, researchers are interested in examining the relationship between the social support of parents and the preparedness for menarche in adolescents.

**METHODS**

**Study and Design**
This research is a quantitative study with a correlational analysis design with cross-sectional methods. The independent variable in this research is parental social support, while the dependent variable is the readiness of menstruation.

**Population and Sample**
The population of this study was 50 students members of 5th and 6th grade at Elementary High School Islamic Center Binbaz, Yogyakarta. Fifty respondents were selected using the total sampling method.
Inclusion criteria were female adolescents who have not menstruated, female adolescents in grades V and VI (late childhood age 10-12 years), and female adolescents who live with their parents. Exclusion criteria were female students who did not come during the study.

**Instrument**

The independent research variable was measured by the parental social support questionnaire, adopt from Ernia, 2018. The questionnaire consists of 16 statements with four subscales: informational support, appreciation support, instrumental support, and emotional support. The questionnaire of this research uses a Linkert scale with a score of 1-4, score 1 = never, 2 = sometimes, 3 = often, and 4 = always. The dependent variable is the readiness of menstruation as measured by a questionnaire, adopt from (11). The instrument consisted of 10 questions with a Guttman scale, yes (1) and no (0). All questions have a valid status with the value of r count is 0.333. The reliability test results obtained Cronbach Alpha 0.853 and 0.859. The independent and dependent variable data types are ordinal data, parental social support is categorized as positive and negative, and readiness of menarche is categorized as ready and not ready.

**Data Collection**

Data was collected in June 2023 after researchers received the ethical approval from the ethics committee of the Yogyakarta 'Aisyiyah University with number 2975/KEP-UNISA/VI/2023. Researchers distributed questionnaires and then the answers received were selected.

**Data analysis**

The type of analysis in this research is univariate, which means it shows a table of the frequency distribution and proportions of the independent and dependent variables. Bivariate analysis uses the Spearman rank correlation test, which is used to determine the relationship between the independent variable and the dependent variable. The significance limit used is 95% (alpha < 0.05) with a p-value < 0.05, and the relationship between the independent and dependent variables is significant. Statistical analysis was performed using SPSS version 23.

**RESULTS**

Table 1 shows the demographic of the respondents, mayoritas karakteristik usia responden adalah pada usia 11 tahun dengan jumlah 24 siswi (48%). Most respondents were in class 5, namely 30 female students (60%).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years old</td>
<td>6</td>
<td>12.0</td>
</tr>
<tr>
<td>11 years old</td>
<td>24</td>
<td>48.0</td>
</tr>
<tr>
<td>12 years old</td>
<td>20</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>30</td>
<td>60.0</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Parental Social Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>19</td>
<td>38.0</td>
</tr>
<tr>
<td>Negative</td>
<td>31</td>
<td>62.0</td>
</tr>
<tr>
<td><strong>Readiness of menarche</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ready</td>
<td>35</td>
<td>70.0</td>
</tr>
<tr>
<td>Not ready</td>
<td>15</td>
<td>30.0</td>
</tr>
</tbody>
</table>

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Based on the distribution in Table 1, it is known that parental social support for respondents had positive parental social support for as many as 19 respondents (38%) and negative parental social support for as many as 31 respondents (62%). It is known that those who are ready to face menarche are 35 respondents (70%) female students, and those who are not ready to face menarche are 15 respondents (30%) female students.

Table 2. Relationship between parental social support and readiness of menarche among adolescents (n=50)

<table>
<thead>
<tr>
<th>Parental social support</th>
<th>Readiness for menarche</th>
<th>Total</th>
<th>p-value</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ready</td>
<td>Not Ready</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Positive</td>
<td>19</td>
<td>38.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Negative</td>
<td>16</td>
<td>32.0</td>
<td>15</td>
<td>68.0</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>70.0</td>
<td>15</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Based on Table 2, a significance value of 0.024 (P < 0.05) was obtained, which means that there is a relationship between parental social support and readiness for menarche. The correlation coefficient value of 0.320 means that there is a sufficient relationship between parental social support and menarche readiness.

**DISCUSSION**

Age is the factor that most influences how children prepare for their first menstruation. The results of several studies explain that the age at which teenage girls get their first menstruation varies between 11 and 14 years. Age also influences the level of maturity and thought patterns, the higher the age level, the higher the level of readiness of young women to face anything, including menstruation (8). According of the research by (12) that the age of the respondent determines when a person begins to experience a change in themselves or the term puberty and most of them are 11 years old with a total of 38 female students (27.3%). In research (13), the age at menarche of the respondents was 4 people aged 10 years (4.8%), 19 people aged 11 years (22.9%), and 49 people aged 12 years (59.0%). Based on research (14) the average age of menarche in adolescent girls is 12.5 years. Based on the results of data analysis (15), the data obtained were respondents aged 11-14 years with a minimum age of 11 years and a maximum age of 14 years, the majority were 12 years old, numbering 25 students (55.6%). The results of this research are in line with research conducted by (16) which showed that the majority of respondents were in class 5, namely 29 female students (85.3%). The age range in classes V and VI is 11-12 years old, which is called puberty.

In this study is known that majority of the female students received positive marks from parental social support. Support is a form of attention, concern, appreciation, comfort, calm, and assistance given by other people (parents) to a person or student. Apart from that, support can be a method of treatment for someone because from support a person will be able to change (17). In reproductive health, especially regarding menarche, parents are expected to communicate better with their children about puberty issues, because it helps ensure healthy child sexuality. Focusing on building communication capacity between parents and children, is an effective strategy for increasing overall support for children's health and development (18). This statement is also supported by research (19) which states that parental support is considered positive when parents are able and ready to explain menstruation correctly so that children understand what menarche
is and what they should do. Parental support in preparing children for menarche includes being an educator who provides complete and correct information about menstruation, maintaining hygiene during menstruation, and both physical and mental support when facing menarche. Research conducted by (20) there is a relationship between parental social support and readiness to face menarche in school-aged children at SDN Baginda 2, with the most support received by female students is support instrumental (80%). Good and positive parental support in understanding menstruation and its problems tends to give children a good and positive perception regarding menarche compared to parents who pay less attention or provide less social support to their children. Research conducted by (21) which had negative support from 19 respondents (63.3%) stated that most of the parents' support was negative because most parents were busy working so there was a lack of communication with their children, especially their daughters, and the lack of knowledge parents provide to their daughters so that the majority of respondents have negative parental support. 

Based on Table 1, 35 respondents (70%) obtained a ready score. Readiness to face menarche does not only depend on the attitude of young women as a predisposing factor but there are other factors that can influence the readiness of young women to face the menstrual period, for example, parental support, education, knowledge, age, and other predisposing factors. Menarche readiness is a condition that shows someone is ready to reach physical maturity (22). Readiness for menarche is a form of health behavior that leads to well-being. Therefore, in preparing children to face menarche, the role of parents, especially mothers, is needed (23).

Research conducted (24) showed that 22 respondents (69%) were ready to face menarche, one of the factors that influenced menarche readiness was support from parents, most mothers did not teach their children about menstrual problems, namely such as the age at which you will experience menstruation, about reproductive health during menstruation. According to research (22), a woman's readiness when facing menarche is also influenced by a child's level of knowledge about menarche. Knowledge about menstruation can be obtained from various sources of information, such as family, peers, and school environment. The main source of information comes from the mother and older sister. Based on research (14), age is also one of the factors that influence menarche readiness, because the younger the child, the less ready they are to receive menstruation. The average age of menarche in children is 12.5 years. The results of the student with insufficient preparation 75.6%, and the readiness category in the good category as much as 24.4% of respondents (15).

**Correlation between parental social support and readiness for menarche**

This study showed a significant relationship between parental social support and menarche readiness at the Salafiyah Ula Islamic Center Bin Baz Yogyakarta. Analysis of school children at the Salafiyah Ula Islamic Center Bin Baz regarding parental social support was carried out by submitting statements regarding information support, appreciation support, instrumental support, emotional support. This is in line with research (17) that there is a significant relationship between parental support and female students' knowledge at Madrasah Ibtidaiyah and the students' readiness to face menstruation at MI Sanggrong Tegalrejo Purwantoro Wonogiri.

Based on research conducted by (25), there is a relationship between nutritional status and age at menarche for female students in Brazil, p value=0.003. (26) that there is a relationship between socio-economic status and age at menarche with p value = -0.011. Favorable socioeconomic status increases girls' perceived social support; Social

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support also has a positive effect on girls' family relationships with their parents, thereby delaying girls' menarche. The indirect effect of socio-economic status on girls' menarche is -0.031. Maternal spiritual health improves parental relationships and conversational orientation and delays girls' menarche. The indirect influence of the mother's spiritual health on the daughter's menarche is 0.004. Favorable socioeconomic status increases girls' perceived social support; Social support also has a positive effect on girls' family relationships with their parents, thereby delaying girls' menarche. Limitation of this study is knowledge factors and adolescent mental readiness were not controlled in this study.

**CONCLUSION**
The study found that has relationship between parental social support and menarche readiness at the Salafiyah Ula Islamic Center Bin Baz Yogyakarta was p value = 0.024 (r = 0.320), meaning the relationship value was at a sufficient level of strength. So there is a relationship between parental social support and menarche readiness. Therefore, educational institutions can collaborate with nurses to provide women's reproductive health programs for students to minimize stress levels.

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