Pakistan Journal of Life and Social Sciences

www.pjlss.edu.pk

RESEARCH ARTICLE

The Relationship between the Level of Knowledge about Menstruation and the Level of Anxiety about Facing Menarche in Adolescents

Fitriati Sabur[1], Syaniah Umar[2], Muhammad Saleng[3], Farming[4], Kartini[5], Sri Sujarwaty[6], Nancy Olii[7], Puspita Sumawaty Rasyid[8], YusniPodungge[9], Endah Yulianingsih[10], Agussalim[11]

[1,2] Makassar School of Midwifery, Makassar Health Polytechnic, Makassar City, South Sulawesi Province. Indonesia
[3] Parepare School of Nursing, Makassar Health Polytechnic, Makassar City, South Sulawesi Province. Indonesia
[4,5] Kendari School of Midwifery, Kendari Health Polytechnic, South East Sulawesi Province, Indonesia
[6,7,8,9,10,11] Gorongtalo School of Midwifery, Gorongtalo Health Polytechnic, Gorongtalo Province, Indonesia

ARTICLE INFO	ABSTRACT
	Puberty in women is marked by the presence of menarche. Lack of knowledge about menstruation in adolescent girls can have an impact on their readiness to face menarche. This study aims to determine the relationship between the level of knowledge about menstruation and the level of anxiety in facing menarche. This study uses a cross-sectional design with a data collection technique using axial sampling using an instrument in the form of a questionnaire, the number of samples in this study is 43 respondents, the data analysis used is Univariate and Bivariate analysis, chi-square test with a significance level of 5%. The results of this study showed that of the 43 respondents studied, there were 22 respondents (51.2%) who had a good level of knowledge and no anxiety, 2 respondents who had a good level of knowledge and mild anxiety (4.7%), respondents who had a low level of knowledge and no anxiety 3 people (7.0%), respondents who had a low level of knowledge and mild anxiety 16 people (37.2%). Based on the results of data analysis, it was found that there was a relationship between the level of knowledge about menstruation and the level of anxiety facing menarche. The importance of providing information sources of knowledge about menstruation so that young women are better prepared to face menarche.

INTRODUCTION

Background

According to the *World Health Organization* (WHO), adolescents are residents in the age range of 10-19 years. Adolescence is a transitional period between childhood and adulthood where there is a rapid physical, cognitive, social, and emotional maturation process in boys to prepare themselves to become adult men and in girls to prepare themselves to become adult women (Khamza Nur Siti 2015).

Puberty in women is marked by the presence of the first menstruation or *menarche*. *Menarche* usually occurs between the ages of 10-16 years depending on several factors including the woman's health, nutritional status, heredity and social environmental factors. Young women will have difficulty dealing with their first menstruation if they have never known or talked about it with their peers or mother. Lack of knowledge about menstruation in adolescent girls can have an impact on readiness to face *menarche* (Sukarni K Icemi et al, 2013).

Adolescents who are not ready to face *menarche* will have a desire to reject the physiological process, they will feel that menstruation is something cruel and threatening, this situation can continue in a more negative direction (Jayanti *et all,* 2011). Children's ignorance about menstruation can result in children finding it difficult to accept *menarche* (Budiati & Apriastuti, 2012).

Difficulty accepting *menarche* can arise due to adolescents' ignorance of the physiological changes that occur at the beginning of a teenage girl's life and lack of knowledge, where this can be caused by the physical and psychological aspects of immature adolescents, lack of information from parents causes feelings of anxiety and fear in adolescents when the first menstruation arrives. In a journal (Lenny Irmawati 2013).

In the world, it is estimated that the number of adolescents amounts to 1.2 billion or 18% of the world's population (WHO, 2014). In Indonesia, the age of adolescents at the time *of menarche* varies between 10 to 16 years and the average *menarche* is at the age of 12 years and 5 months (Munda *et al,* 2013). According to the regulation of the Minister of Health of the Republic of Indonesia number 25 of 2014, adolescents are residents in the age range of 10-18 years and according to *the Population and Family Planning Agency* (BKKBN) the age range of adolescents is 10-24 years old and unmarried. The number of age groups of 10-19 years in Indonesia according to the 2010 population census is 43.5 million or about 18% of the population. The population of Indonesia is 252,124.45 people and the number of adolescents aged 10 to 14 years is 24,067,868 people, including 12,374,565 males and 11,693,303 females (Indonesia Health Profile 2014).

The estimated number of adolescents in the southern region who are 15 years old is 2,587,687, of which 1,256,847 are females and 1,330,840 are males (Indonesia Health Profile 2014). From the initial data obtained at SMPN 7 Makassar, the total number of students between grades VII and VIII amounted to 763 students, of which 389 students were adolescent girls (SMPN 7 Makassar 2016)

Based on the results of interviews with 25 young women of SMPN 17 Makassar, there were 13 young women who stated that they did not understand menarche, and 8 young women stated that they knew about *menarche*. Furthermore, when the researcher explained at a glance about *menarche*, there were 4 young women who expressed fear and anxiety about the arrival of *menarche*. When researchers asked some adolescent women about subjects that discussed menstrual issues, they said there were no biology subjects that discussed reproductive issues about menstruation. Based on the description mentioned above, the researcher is interested in conducting research on "The Relationship between the Level of Knowledge About Menstruation and the Level of Anxiety Facing *Menarche* in Adolescents at SMPN 17 Makassar.

METHOD OF RESEARCH

This type of research is by using *descriptive analysis* using *a cross-sectional* approach, namely independent variables and dependent variables in this study collected at the same time to determine the relationship between knowledge about menstruation and the level of anxiety facing *menarche* in adolescents at SMPN 17 Makassar.

The population referred to in this study is all students in grades VII and VIII at SMPN 17 Makassar. The sample consists of a portion of the affordable population that can be used as a research subject through sampling (Nursalam 2013). In this study, the researcher took a sample, which is a part of the population of adolescent girls who are met and in accordance with the inclusion criteria and are willing to be researched.

To obtain the desired information, the researcher used *a questionnaire* as a data collection instrument developed based on literature that contained questions about the relationship between the level of knowledge about menstruation and the level of anxiety about facing *menarche* in adolescents.

Data Collection Procedure is the preparation stage where in the preparation stage before the research is carried out, the things that are. Furthermore, the research implementation stage is carried out by submitting a questionnaire to the respondents, filling out the questionnaire guided by the researcher. Then the Final Stage is the data collected, then the data is managed and analyzed and then the research conclusion is formulated.

After the data is collected, the researcher then holds: *Editing* is an activity to check the contents of the questionnaire form so that the answers are complete, clear, relevant and consistent, *Coding* is the activity of changing and forming letters into data in the form of numbers/numbers, *Tabulating* is the data that has been collected is tabulated in the form of a frequency distribution table. The measurement scale used is the Guttman scale and *Analysis,* namely data that has been collected and entered, analyzed using statistical tests.

After data collection is carried out, data analysis is carried out using a computer, namely a data processing program that is carried out statistically descriptively. The data analysis used includes: Univariate analysis is carried out on each variable and the results of the study. This analysis results in the distribution and percentage of each variable that is examined. And bivariate analysis was carried out to see the relationship between each independent variable and dependent variable using a statistical test with a significance level (α): 0.05. If the indigo $P \leq$ of the value (α): 0.05, then HA is accepted and HO is rejected, meaning that there is a relationship between the level of knowledge about menstruation and the level of difficulty in facing *menarche*. The statistical test used was the Chi-Square test, using the SPSS program computer.

RESULT

The results of this study were obtained using a questionnaire consisting of 15 questions about adolescent girls' knowledge about menstruation, 17 questions about anxiety about facing *menarche.* The questionnaire was distributed to each respondent and then filled out directly and accompanied by the researcher. After data collection, the next step is data processing to obtain the results of this research. Data processing using data processing programs. Furthermore, the complete research results in the form of tables include univariate and bivariate analysis to see the relationship between independent variables and dependent variables using *the chi-square* formula, where the significance value is α=0.05. The results of the research obtained are as follows:

1. Respondent Characteristic

a. Age group

The distribution of respondents according to the age of adolescent girls who are recorded as active in grades VII and VIII can be seen in the following table:

Table 1: Distribution of Respondent Frequency Based on Age of Adolescent Girls Recorded as Active in Grades VII and VIII

Age	Frequency	Presented (%)
11	3	7,0
12	18	41,9
13	19	44,2
14	3	7,0
Total	43	100

Table 1 shows that of the 43 respondents, 19 (44.2%) are 13 years old, 18 (41.9%) are 12 years old, 3 (7.0%) are 11 years old, and 3 (7.0%) are 14 years old.

b. Resources

The distribution of respondents according to the source of information on young women who are recorded as active in grades VII and VIII can be seen in the following table:

Table 2: Distribution of Respondent Frequency Based on information sources of adolescent girls who are recorded as active in grades VII and VIII

Resources	Frequency	Presented (%)
Books/Magazines	2	4,7
TV/Internet	5	11,6
Parents and Friends	27	62,8
Family	9	20,9
Not from anyone	0	0
Total	43	100

Table 2 shows that of the 43 respondents, the most information sources obtained by young women about knowledge are information from parents and friends amounting to 27 people (62.8%), from family amounting to 9 people (20.9%), from TV/Internet amounting to 5 people (11.6%), and from books/magazines amounting to 2 people (4.7%).

2. Univariate Analysis

a. The level of knowledge of adolescent girls who are recorded as active in grades VII and VIII about menstruation can be seen in the following table:

Table.3: Frequency distribution of the level of knowledge of adolescent girls who are recorded as active in grades VII and VIII

Knowledge	Frequency	Percentage (%)
Good	24	55,8
Less	19	44,2
Total	43	100

Table 3 shows that of the 43 respondents, the distribution of respondents according to the level of knowledge of adolescent girls who are recorded as active in grades VII and VIII about menstruation is in the good category amounting to 24 people (55.8%) and the poor category amounting to 19 people (44.2%).

b.   The level of anxiety of adolescent girls who are recorded as active in grades VII and VIII facing *menarche* can be seen in the following table:

Table.4: Frequency distribution of anxiety levels of adolescent girls who were recorded active in grades VII and VIII

Anxiety	Frequency	Presented (%)
No Anxiety	25	58,1
Mild Anxiety	18	41,9
Moderate Anxiety	0	0
Total	43	100

Table 4 shows that of the 43 respondents, the distribution of respondents according to the level of anxiety of adolescent girls who were recorded as active in grades VII and VIII facing *menarche* was the non-anxiety

category of 25 people (58.1%), the mild anxiety category of 18 people (41.9%), and no respondents with moderate anxiety were found.

3. Bivariate Analysis

To find out the relationship between the level of knowledge about menstruation and the level of anxiety in facing *menarche* in adolescents.

Table 5: Frequency distribution the relationship between the level of knowledge about menstruation and the level of anxiety faced Menarche for Teenagers

Level of knowledge	Anxiety Level								P
	No Anxiety		Mild Anxiety		Moderate Anxiety		Total		
	N	%	N	%	N	%	N	%	
Good	22	51,2	2	4,7	0	0	24	55,8	
Less	3	7,0	16	37,2	0	0	19	44,2	0.000
Total	25	58,1	18	41,9	0	0	43	100	

From the results of the study, it is known that of the 43 respondents studied, there are *22* respondents (51.2%) who have a good level of knowledge and are not anxious about menarche and 2 respondents (4.7%) who have a good level of knowledge and mild anxiety about *menarche*. Then respondents who had a low level of knowledge and were not anxious about *menarche* amounted to 3 people (7.0%), respondents who had a low level of knowledge and mild anxiety amounted to 16 people (37.2%), no respondents with a good level of knowledge and moderate anxiety were found, and no respondents with a low level of knowledge and moderate anxiety were found. From the statistical test using *Chi-Square*, the value *of p = 0.000* is obtained to be smaller than the value of α = 0.05. The results mean that the alternative hypothesis is accepted or the null hypothesis is rejected, which means that there is a relationship between the level of knowledge about menstruation and the level of anxiety in facing *menarche* in adolescents.

DISCUSSION

The Relationship between the Level of Knowledge About Menstruation and the Level of Anxiety Facing *Menarche* in Adolescents.

Based on the results of the study using *the Chi-Square* test, the value *of p=0.000 (p < α=0.05) was obtained. The results* mean that the alternative hypothesis is accepted or the null hypothesis is rejected, which means that there is a relationship between the Relationship between the Level of Knowledge About Menstruation and the Level of Anxiety Facing *Menarche* in Adolescents.

The results of this study showed that the most respondents were the level of knowledge in the good and non-anxious category of 22 people (51.2%) adolescent girls who were recorded as active in grades VII and VIII about menstruation. In line with the theory in the book Notoatmodjo (2007), it is stated that knowledge is the formation of a person's actions. Knowledge is needed as a *psychological* encouragement in self-growth as well as an encouragement of attitudes and behaviors every day, so it can be said that knowledge is a stimulus for a person's actions.

In line with the theory in the book Sukarni K Icemi et al. (2013), it is stated that puberty in women is marked by the presence of the first menstruation or *menarche*. *Menarche* usually occurs between the ages of 10-16 years depending on several factors including the woman's health, nutritional status, heredity and social

environmental factors. Young women will have difficulty dealing with their first menstruation if they have never known or talked about it with their peers or mother. Lack of knowledge about menstruation in adolescent girls can have an impact on readiness to face *menarche,* therefore knowledge and understanding of menarche are needed for mental readiness before *menarche* so that feelings of anxiety and fear can be minimized.

In line with the results of the research by Sulistiyaningsih Hadi Sri, et al. (2014) on the Relationship between Knowledge and Adolescent Anxiety Levels in Facing *Menarche* in MTs Class VII Sirojul Huda, Kayen District, Pati Regency said that there is a relationship between knowledge and adolescent anxiety levels in dealing with menarche in MTs class VII Sirojul Huda, Kayen District, Pati Regency.

According to the researcher's assumption, in this study it was found that the most respondents were respondents who had good knowledge and were not anxious, this was due to the ease of exposure to information obtained by adolescent girls, both from peers who had already faced *menarche* and information obtained from the family environment and other sources of information, this had a positive impact on the knowledge of adolescent girls who had not experienced *it Menarche*, where the better the knowledge of young women about *Menarche* , the better the readiness of young women in facing *Menarche* and the possibility of increased anxiety about *Menarche* will be reduced.

From the results of this study, it was also found that 16 respondents (37.2%) had a level of knowledge in the category of lack and mild anxiety. In line with the theory in the book Sukarni K Icemi et al. (2013). Stating that the feeling of confusion, restlessness, and helplessness always envelops the feelings of women who are experiencing menstruation for the first time (*menarche*). This will be worse if adolescents have very little knowledge about menstruation and lack of education from parents. There is a wrong parental assumption that this is a taboo thing to discuss and assume that children will know by themselves, adding to the complexity of the problem. Other symptoms felt were headaches, aches in the legs and waist for several hours, abdominal cramps and abdominal pain. Before this period occurs, there are usually some emotional changes such as feelings of sadness, anger and sadness caused by the release of certain hormones

According to researchers, this happens because some young women with a lack of knowledge and experience mild anxiety this is due to a lack of understanding of *menarche*, so they consider that menstruation is scary and dangerous because of the discharge of blood and the onset of symptoms that may later make the respondent uncomfortable and unable to overcome it. Menarche has a negative impact on the respondent's psyche which makes the respondent experience anxiety as a result of the respondent's negative thoughts about *menarche.* From the results of this study, it was also found that respondents who had a low level of knowledge and were not anxious about *menarche* were 3 people (7.0%). In line with the theory in the book Sukarni K Icemi et al. (2013), Posing that the first menstruation or *menarche* is a natural thing that must be experienced by every normal woman and does not need to be disturbed and each culture has a different way of responding to this occurrence *of menarche*. Some cultures view *menarche* as one of the most important things in their daughter's life and as a congratulation for their child as a sign that she is an adult, but some other cultures view it as unimportant. In line with the research of Yanti Yusuf et al. (2014), about the relationship between *menarche knowledge* and the readiness of adolescent girls to face *menarche* in junior high school 3 Tidore Islands, it was found that out of 35 respondents, it was also found that there were also respondents who lacked knowledge and were ready to face *menarche* as many as 2 people, 5.7%

According to the researcher in this study, it was found that respondents who had a low level of knowledge but were not anxious, the low knowledge of adolescent girls can be influenced by several factors such as education, experience, information, age/age, social, economic, and cultural, this is the possible cause of low knowledge of adolescent girls about *menarche*, but even though the respondents have low knowledge, the respondents do not experience anxiety because there are some respondents who do not consider that

menarche is something to worry about even though the respondents lack knowledge about *menarche* but the respondents know that all women will definitely experience menstruation, with that understanding capital that makes the respondents underestimate their first menstruation, in fact the respondents feel Can't wait for the arrival of their menstruation because respondents consider that if they have experienced menstruation, it means that they have entered the next stage, namely maturity, and become normal women like other women who experience menstruation every month.

In this study, no respondents with a good level of knowledge were found who were moderately anxious, and there were also no respondents with a low level of knowledge in the category and moderate anxiety. According to the researcher's assumption, this happens because the majority of respondents understand menstruation, although not all respondents have good knowledge about menstruation, but with them understanding that all menstruation will occur in women, this understanding is what shapes the coping pattern of each respondent to be better so that in this study there are no respondents who experience moderate anxiety, Because the arrival of menstruation is not something that makes a woman very anxious because menstruation is something that is normal for all women

Limitation

The limitations in this study are that the researcher is constrained in the research time which almost coincides with the long school holidays so that we conducted this research in a short time and seemed to be in a hurry, but thus the researcher still conducts research as much as possible because of good cooperation with the school so that even with some limitations and obstacles this research can be solved properly and as it should.

Conflict of interest

There is no conflict of interest from this study.

Funding

There is no funding in this research

REFERENCES

Ahmet Niyazi Ozker. (2023). Factual Changes in Inflation and National Income: Their Impact on the Tax Burden Within OECD Countries. Pakistan Journal of Life and Social Sciences. E-ISSN: 2221-7630; P-ISSN: 1727-4915, Pak. j. life soc. Sci. (2023), 21(1): 393-413. https://www.pjlss.edu.pk/pdf_files/2023_1/393-413.pdf

and family. Edition 18. Jakarta : EGC

Anxiety Levels of First Grade Students of SMP Negeri 1 Salomekko, Bone Regency.*http://library.stikesnh.ac.id.* Retrieved on April 26, 2016 at 20.00 WITA

Asmadi. (2008). *Basic Human Needs*. Jakarta. Salemba Medika.

Bahtiar Proverbs. (2013). *Philosophy of Science*. Jakarta. PT Raja Grafindo Persada.

Bandung: Remaja Rosdakarya

Book.   ECG Medicine

Budi Anna Keliat, et al. (2011). *Mental Disorder Case Management:*

CMHN   (Intermediate course). Jakarta :EGC

daughter of Readiness to Face Menarche at SD 2 Al-Azhar Medan

Dewi Eka Heriana. (2012). *Understanding the Physical Development of Adolescents.*

Examples of nursing research instruments.

Fitriani Sinta. (2011). *Health Promotion.*Yogyakarta : Graha Ilmu

Harliani et all, 2024, Smoking Behavior of Adolescents in Public High Schools, Pak.

Hawari (2011). *Management of stress, anxiety and depression.* Jakarta. FKUI

http://adhysetyadi.files.wordpress. com. Diakses tgl 25 april 2016 pukul 11.31 Wita

http://repository.usu.ac.id. Retrieved May 3, 2016 at

Indonesia Health Profile. (2014). *http://www.depkes.go.id.* Accessed

j. life soc. Sci. (2024), 22(1): 6059-6070 E-ISSN: 2221-7630;P-ISSN: 1727-4915, https://doi.org/10.57239/PJLSS-2024-22.1.00447, http://www.pjlss.edu.pk/

Julianti, et al. (2014). Factors related to menarche

Khamza Nur Siti. (2015). *Questions and Answers About Menstruation*.

Laila Najmi Nur. (2011). *Menstrual Smart Book*. Jogyakarta. Blue Book

Leliana. (2010). Adolescent Knowledge Relationship Research Questionnaire

Lenny Irmawati. (2013). Knowledge Relationship About Menarche

Makna. the deserving. Nuha Medica

Menarche with anxiety level facing menarche in SDI Al-Irsyad Tawangmangu *students.http://perpusnwu.web.id.* Retrieved on April 26, 2016 at 20:05 WITA

Ministry of the Republic of Indonesia, (2014). *http://www.depkes.go.id.* Accessed on

Nirvana Seed Ade. (2011). *Women's Health Psychology*. Yogyakarta.

Notoatmojo S. (2010). *Public Health, Science, and Arts*. Jakarta:

Nuha Medica

Nursalam. (2013). *Research Methodology of Nursing*. Jakarta

Nursalam. (2015). *Nursing Management*. South Jakarta, Salemba Medika

on May 4, 2016 at 21:19 WITA

Proverawati, Arikah et al. (2009). *Full First Menstrual Menarche*

Readiness of young women to face menarche at SMP Negeri 3 Tidore Islands. *http://ejournal.unsrat.ac.id.* Retrieved on April 25, 2016 at 19.00 WITA

Reeder, et al. (2011). *Nursing Women's Health Material, Infant,*

Rineka Cipta. (2007). *Public Health: Science and Art*. Jakarta : Rineka

Rofi' Nur Khoriyyah. (2015). The Relationship of Knowledge Levels

Shahrin Saaid Shaharuddin, Mozard Mohtar, Azni Zarina Taha, Hanafi Husin. 2023. A Panel Study on the Effects of Cultural Influence and Heritage on Cultural Exports. Pakistan Journal of Life and Social Sciences. E-ISSN: 2221-7630; P-ISSN: 1727-4915, Pak. j. life soc. Sci. (2023), 21(1): 499-514. https://www.pjlss.edu.pk/pdf_files/2023_1/499-514.pdf

South. Salemba Medika

Stuart GW. (2007). *Psychiatric Nursing Pocket Book. Issue 5*. Jakarta. Publisher

Sukarni K Icemi, et al. (2013). *Maternity Nursing Textbook*.

Sukmadinata, Nana Syaodih. (2009). *Educational Research Methods*.

Sulistyaningsih Hadi Sri, et al. (2014). The relationship between knowledge and

the 4th from 2016 pukul 21:19 Wita

the level of anxiety in dealing with menarche in MTs grade VII Sirojul Huda, Kayen District, Pati *http://siakad.akbidbup.ac.id* Regency. Retrieved on July 22, 2016 at 20.27 WITA

with the level of anxiety in adolescent girls at SMPN 6 Tambun Selatan. *https://ayurvedamedistra.files.wordpress.com.* Retrieved on April 25, 2016 at 09:32 WITA

Yanti Yusuf, et al. (2014). The relationship of Menarche knowledge with

Yogyakarta. FlashBooks

Yogyakarta. Gosyen Publishing

Yogyakarta. Nuha Medika,

Yolla Margaretha, Popo Suryana, (2023). The Effect of Market Orientation, Entrepreneurial Orientation, and Learning Orientation on Marketing Innovations and their Implications on the Marketing Performance of Micro Actors in Bandung Metropolitan Area. *Pakistan Journal of Life and Social Sciences.* E-ISSN: 2221-7630; P-ISSN: 1727-4915, Pak. j. life soc. Sci. (2023), 21(1): 478-498. https://www.pjlss.edu.pk/pdf_files/2023_1/478-498.pdf