

Factor Analysis Related to Knowledge and Adolescent Attitudes about Menarche

Nurul Husnah¹, Muhammad Tamar², Esther Sanda Manapa³, Werna Nontji⁴,
Burhanuddin Bahar⁵, Sharvianty Arifuddin⁶

^{1, 4, 6}Midwifery Study Program, Graduate School, Hasanuddin University,

²Psychology Study Program, Hasanuddin University,

³Transportation Study Program, Hasanuddin University,

⁵Faculty of Medicine, Hasanuddin University,

Makassar - Indonesia

Abstract: Menarche is a period when a woman experiences menstruation for the first time, the purpose of this research is to find out how the relationship between knowledge and attitudes of adolescents about menarche. This study was an analytic observational study with a cross-sectional study approach. The population in this study were all female teenage students at SMPN 4 Pongtiku Makassar with a total of 582 people. The sample in this study was taken using a purposive sampling technique with 152 respondents. Most respondents were in early adolescence with 87 respondents and most respondents had a history of normal menarche age of 143 respondents. Most respondents have good knowledge about menarche namely 117 respondents and 35 respondents have less knowledge, Most respondents have a positive attitude about menarche, from the results of the study found 142 respondents have a positive attitude and 10 respondents have a negative attitude about menarche, adolescent knowledge about menarche in terms of adolescence and adolescent menarche age does not have a relationship. The knowledge and attitudes of young women about menarche are already very good, adolescents who have good knowledge tend to have positive attitudes to enable adolescents to experience normal menarche age, good knowledge of 61 respondents and positive attitudes of 79 respondents at most in their early teens, at the age of menarche tarda Good knowledge 4 respondents and positive attitude of 4 respondents about menarche are very good.

Keywords: Knowledge; attitude; adolescence; menarche

Date of Submission: 26-06-2020

Date of Acceptance: 15-07-2020

I. Introduction

Menarche is a period where a woman experiences her first menstruation. The physiological process experienced is in the form of decay of the endometrial lining which results in the discharge of blood from the vagina (Jemie S, 2008). Age of menarche itself occurs at vulnerable ages 10-16 years and age 12-14 years is the most normal period to occur (Nagar, S., and Aimol R, 2010).

WHO in the year 2019, the world population is currently at 7.7 billion (Worldometers, 2019). The number of adolescents in the world currently reaches approximately 1.2 billion. In Southeast Asia, the number of adolescents ranges from 18% to 25% of the entire population (Anwar C et al. 2017). The population of adolescents in Indonesia reaches 30% of Indonesia's population of 267 million and 30% of the population are young girls (Central Statistics Agency, 2020).

The research results of Anwar C et al in Banda Aceh in 2016, there is a relationship between knowledge and readiness of adolescents in the face of menarche 52.3% of girls who have good knowledge about menstruation tend to be more positive in dealing with menarche and 74.5% are less ready to be negative. According to Fajria and Desi (2014), the source of knowledge influences the status of adolescent menarche. Hadriyanti M (2019) in a qualitative research study found that unlimited knowledge gained by adolescents was the biggest trigger of precursion menarche in adolescents.

Researchers assume that each adolescent has their own mindset and different reactions about menarche, some are positive and some are negative. If they have a positive attitude with good knowledge they will be able to understand and accept the period of menarche as normal. If adolescent attitudes are negative they will have physiological and psychological complaints caused by the knowledge gained is very lacking. Not many previous studies have looked specifically at how the relationship of knowledge and attitudes of adolescents about menarche to menarche age and adolescence, adolescents' knowledge and attitudes will greatly influence how it

will be in the future. The purpose of this study was to find out how the relationship between knowledge and attitudes of adolescents about *menarche* based on the age of *menarche*.

II. Methods

This research is a quantitative, observational analytic study with a cross-sectional study approach, namely research that emphasizes measurement or observational once at a time carried out on the dependent variable and the independent variable, (Dahlan M.S., 2014).

This approach is used to see the relationship or relationship between one variable with another variable. This study aims to analyze factors related to the knowledge and attitudes of young women about menarche. This research was conducted at SMPN 4 Pongtiku Makassar in January 2020 to February 2020. The population in this study were all young women students at SMPN 4 Pongtiku Makassar, amounting to 582 people. The sample in this study was taken using a purposive sampling technique (Ernawati et al., 2019), using the Slovin formula (Riyanto, 2011) to determine the sample size, the sample must meet the inclusion and exclusion criteria with a total sample of 152 respondents.

This study uses a questionnaire to determine the relationship between knowledge and attitudes of adolescents about *menarche*. The presentation of data is made using a frequency distribution table and a 2 x 3 contingency table accompanied by an explanation. Data analysis consisted of univariate and bivariate analyzes.

III. Results

Based on the class of respondents, the proportion is class VII (49%). Class VIII (30%), class IX (21%).

Univariate Analysis

Table 1. The frequency distribution of respondents by age is divided into 2 namely early adolescents and middle adolescents at SMPN 4 Pongtiku Makassar city

No.	Age	Frequency (n)	Percentage (%)
1.	Early teens	87	57
2.	Mid teens	65	43
Total		152	100

Source: The results of the analysis, 2020

Table 1 show that the majority of respondents were in early adolescence with a total of 87 respondents.

Table 2. The frequency distribution of respondents based on the age of Menarche divided into 3 namely precocious, normal and tarda at SMPN 4 Pongtiku Makassar

Menarche age	Frequency (n)	Percentage (%)
Precoc	5	3,3
Normal	143	94
Tarda	4	2,7
Total	152	100

Source: The results of the analysis, 2020

In table 2 it is explained that there were 143 (94%) respondents who were the most respondents with normal *menarche* age.

Table 3. Frequency distribution of adolescent knowledge about *menarche* (teenagers) at SMPN 4 Pongtiku in Makassar

Knowledge	Adolescent age		Total frequency	Percentage (%)
	Early adolescent	Mid adolescent		
Good	61	56	117	77
Less	26	9	35	23
Total	87	65	152	100

Source: The results of the analysis, 2020

Table 3 shows that good knowledge about early adolescent *menarche* was 61 (40%) of middle adolescent respondents 56 (37%) respondents. Furthermore, knowledge is lacking in 26 (17%) early adolescent respondents, and 9 (6%) middle adolescent respondents.

Table 4. Frequency distribution of adolescent attitudes about menarche (teenagers) at SMPN 4 Pongtiku in Makassar

Attitude	Adolescent age		Total frequency	Percentage (%)
	Early adolescent	Middle adolescent		
Positive	79	63	142	93.4
Negative	8	2	10	6.6
Total	87	65	152	100

Source: The results of the analysis, 2020

Table 4 shows that positive attitudes about menarche in early adolescents were 79 (52%) respondents, middle adolescent 63 (41%) respondents. Furthermore, negative attitudes about early adolescent *menarche* were 8 (5.2%) respondents and in mid-teens, there were 2 (1.3%) respondents.

Table 5. Frequency distribution of adolescent knowledge about menarche (age of menarche) in SMPN 4 Pongtiku, Makassar

Knowledge	Menarche age			Total Frequency	Percentage (%)
	Precoc	Normal	Tarda		
Good	3	110	4	117	77
Less	2	33	0	35	23
Total	5	143	4	152	100

Source: The results of the analysis, 2020

In table 5 above it can be seen that good knowledge about menarche at precocious *menarche* age there are 3 (22%) respondents, at normal *menarche* age there are 110 (72%) respondents and menarche *tarda* age there are 4 (2.7%) respondents, then less knowledge on precoc *menarche* age there are 2 (1.3%) respondents, normal age *menarche* there are 33 (22%) respondents and age *menarche tarda* 0 (0%) respondents.

Table 6. Frequency distribution of adolescent attitudes about *menarche* (age of *menarche*) in SMPN 4 Pongtiku, Makassar

Attitude	Menarche age			Total frequency	Percentage (%)
	Precoc	Normal	Tarda		
Positive	5	133	4	142	93.4
Negative	0	10	0	10	7.0
Total	5	143	4	152	100

Source: The results of the analysis, 2020

In table 6 it can be seen that the positive attitude about *menarche* at the age of precocious *menarche* there are 5 (3.2%) respondents, at the age of normal *menarche* there are 133 (87%) respondents and the age of *menarche tarda* there are 4 (3%) respondents, then negative attitudes at the age of precocious *menarche* 0 respondents, the age of normal *menarche* there were 10 (7%) respondents and the age of *menarche tarda* 0 (0%) respondents.

Bivariate analysis results

Table 7. Factor analysis related to adolescent knowledge about *menarche*

Table 11. Factor analysis related to adolescent knowledge about menarche								
Variable	Menarche age						p values	
	Criteria	Precoc		Normal		Tarda		
		N	%	N	%	n		%
Knowledge	Good	3	2.6	110	94.0	4	3.4	0.987
	Less	2	5.7	33	94.3	0	0.0	

Source: The results of the analysis, 2020

In table 7 it is shown that the significance value of 0.987 shows that $p > 0.05$ then there is no relationship between adolescent knowledge about *menarche* and the age of *menarche*.

Table 8. Analysis of factors related to adolescent attitudes about *menarche*

Table 3. Analysis of factors related to adolescent attitudes about menarche								
Variable	Criteria	Menarche age						p values
		Precoc		Normal		Tarda		
		N	%	N	%	N	%	
Attitude	Positive	5	3.5	133	93.7	4	2.8	0.414
	Negative	0	0.0	10	100.0	0	0.0	

Source: The results of the analysis, 2020

In table 8 it is known that the significance value obtained by the results of 0.414 shows that $p > 0.05$ then there is no relationship between adolescent attitudes about *menarche* and age of *menarche*.

IV. Discussion

Univariate Analysis

a. Age of respondent and age history of respondent's *menarche*

Most respondents were in their early teens with a history of normal *menarche* age.

b. Knowledge of respondents

Most respondents have good knowledge about *menarche*. So it can be said that the better the knowledge the better the attitude of adolescents about *menarche*, knowledge, and attitudes about *menarche* have a connection.

Knowledge is the result of "knowing" from humans who merely answer the question of 'what'. Knowledge occurs after a person senses a certain object, sensing itself occurs when there is a response or stimulation through the five senses, namely the sense of hearing, sight, smell, touch and taste, most of the human knowledge is obtained from the eyes and ears. Own Knowledge has six levels, namely know, understand (Comprehension), application, analysis, Synthesis, and evaluation.

c. The attitude of the respondent

Most respondents have a positive attitude about *menarche* and only a small proportion that have a negative attitude about *menarche*.

Researchers assume that the respondent's attitude is well seen from the results of the study that most respondents were positive about *menarche*.

Attitude is a reaction or response of someone who is still closed to the stimulation or object, the manifestation of that attitude cannot be directly seen but can only be interpreted first of the closed behavior, this attitude is a readiness or willingness to act and is not an implementation of certain motives.

Researchers are of the opinion that in general the attitudes of respondents at SMPN. 4 Pongtiku Makassar have been well seen from the many respondents who were positive about *menarche*.

Bivariate Analysis

a. The relationship between adolescent knowledge about *menarche* with *menarche* age

Most respondents with good knowledge have a history of normal *menarche*, but if presented, it can be seen that the percentage of adolescents with a history of normal *menarche* with less knowledge. *Menarche* sees or refers to the age of adolescent *menarche*.

It turns out that adolescent *menarche* knowledge does not determine the age of adolescent *menarche* either precocious, normal or tarda.

According to Notoatmojo, 2003 the factors that influence the knowledge of one of them are age so it is said that adolescent knowledge about *menarche* has a relationship with the age of adolescent *menarche* but based on the results of this study there is no relationship between adolescent knowledge about *menarche* with *menarche* age, the more knowledge about *menarche* does not make *menarche* last at a normal age and the less knowledge about *menarche*, the longer the age of *menarche*.

b. The relationship between adolescent attitudes about *menarche* with *menarche* age.

The results of this study note that there is no relationship between the attitudes of adolescents about *menarche* seeing or referring to the age of adolescent *menarche*, both the precursor *menarche* age and normal *menarche* age.

This study is in line with research conducted by Fiane de Frates in 2019 in elementary school grades 3-6 which states that respondents who have a good attitude are characterized by feeling happy facing *menarche*, not feeling afraid and embarrassed when experiencing *menarche*. Researchers assume that respondents with primary school level 3-6 are the age of precocious *menarche*.

This research is also in line with research conducted by Vemmy Veronica Yulia in 2010, stating that the dominant factor in *menarche* tarda age is general health (chronic/chronic disease) and genetic (history of maternal *menarche*).

Other research that is in line with this research is a study conducted by Nuvita Lusiana in 2012 that factors related to the age of *menarche* are the history of maternal *menarche* age, nutritional status, and socioeconomic status.

Although attitudes have a big contribution to humans, both positive and negative attitudes do not affect the age of adolescent *menarche*. Adolescents who behave positively may not necessarily have a history of normal *menarche* age and adolescents who behave negatively about *menarche* also do not have a history of precancerous *menarche* or *tarda*.

V. Conclusion and Recommendation

The knowledge and attitudes of young women about *menarche* are already very good; adolescents who have good knowledge tend to have positive attitudes to enable adolescents to experience a normal age of *menarche*. Good knowledge 61 (70.1%) of respondents and positive attitude 79 (90.8%) of respondents at most in their early teens. There is no relationship between adolescent knowledge about *menarche* seen from the age of *menarche* with the p value of 0.987. There is no correlation between the adolescent sealing of *menarche* seen from the age of *menarche* with the p value of 0.414.

References

- [1] Jemie S. Nutrition of Adolescence In: Mahan LK E-SS. Krause's Food, Nutrition, and Diet Therapy. 12th ed Philadelphia Saunders, p. 2008:246-253.
- [2] Nagar, S. & Aimol R. Knowledge Of Adolescent Girls Regarding Menstruation In Tribal Areas Of Meghalaya. *Dep Hum J*. 2010;8(1).
- [3] <https://databoks.katadata.co.id/datapublish/2019/09/10/jumlah-penduduk-dunia-pada-2019-capai-77-miliar-jiwa>, diakses pada juni 2020.
- [4] Anwar C et al. 2017. Relationship between Knowledge, Attitude and Role of Mothers with Young Women Readiness to Face Menarche in Classes 4-6 at SD 3 Peuniti Banda Aceh City, *Journal of Healthcare Technology and Medicin*.
- [5] <https://www.bps.go.id/sp2020/>. (last accessed on June, 2020).
- [6] L Fajria Dan NM Desi. Description of Factors Causing Early Menarche at SMPN 4 Kota Pariaman. *Nursing Jural Andalas University*. 2014.
- [7] Hardiyanti M. Determinant of Precoc Events in Adolescents 10-17 Years Old in Makassar City. *J Ilm Health Diagnosis*. 2019; 13 (6).
- [8] Dahlan Sopiudin M. *Statistics for Medicine and Health, Indonesian Epidemiology*; 2014.
- [9] Ernawati, and Esther Sanda Manapa. The influence of Preceptorship Learning Method on Leopold Examination Skill on Midwifery Students. *J Elsevier, Enferm Clin*. 2019.
- [10] Riyanto A. *Health Research Methodology Application*; 2011.
- [11] Notoatmodjo. *Health Education and Behavior*; 2003.
- [12] Fiane de fretes et al. Knowledge about menstruation relates to pre-teen mental readiness in menstruation. *A Ilm Univ Kendala*. 2020, volume 10.
- [13] Yemmi veronica yulia. Research into factors related to late age of menarche in young women. 2010.
- [14] Nuvita L. Factors Related to the Age of Menarche at PGRI Pekanbaru Middle School Students Factors Associated With the Age of Menarche Junior High School PGRI Pekanbaru Students. *A Community Health*. 2012; 2 (1): 40-44.

Nurul Husnah, et. al. "Factor Analysis Related to Knowledge and Adolescent Attitudes about Menarche." *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, 9(4), 2020, pp. 01-05.