

Judul	:	Knowledge and attitude about risky pregnancy among student
Author	:	Suci Musvita Ayu, S. Lindawati, Thoharoh Halimatusa'diyah

Bukti Review:

## #20413 Summary

[SUMMARY](#) [REVIEW](#) [EDITING](#)

### Submission

Authors	Suci Musvita Ayu, S. Lindawati, Thoharoh Halimatusa'diyah
Title	Knowledge and attitude about risky pregnancy among student
Original file	<a href="#">20413-38087-1-SM.DOCX</a> 2019-12-02
Supp. files	<a href="#">20413-38089-1-SP.DOCX</a> 2019-12-02
Submitter	Suci Musvita Ayu
Date submitted	December 2, 2019 - 02:19 AM
Section	General Education Concepts
Editor	Jonathan deHaan, Ph.D.  (Review) Yeo Jiar  (Review) Sagini Keengwe  (Review) Elina Maslo  (Review)
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## #20413 Review

[SUMMARY](#) [REVIEW](#) [EDITING](#)

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### Editor Decision

Decision	Accept Submission 2020-03-22
Notify Editor	Editor/Author Email Record  2020-03-22
Editor Version	None
Author Version	<a href="#">20413-38270-1-ED.DOCX</a> 2020-01-14 <a href="#">DELETE</a>
Upload Author Version	<div> <input type="button" value="Choose File"/> <input type="button" value="No file chosen"/> <input type="button" value="Upload"/> </div>

# Editor/Author Correspondence

Editor [DELETE](#)

2020-01-06 Subject: [IJERE] Editor Decision

02:35 AM

The following message is being delivered on behalf of International Journal of Evaluation and Research in Education (IJERE).

---

Dear Prof/Dr/Mr/Mrs: Assalamu'alaikum... Suci musvita ayu,

We have reached a decision regarding your submission entitled "THE IMPROVEMENT OF KNOWLEDGE AND ATTITUDE ABOUT RISKY PREGNANCY" to International Journal of Evaluation and Research in Education (IJERE), an ERIC indexed journal (<https://bit.ly/2EI8hDj>).

Our decision is to ACCEPT with revisions

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Reviewer D:

The IJERE form to evaluate submitted papers

Content:

Good

Significance

:

Good

Originality:

Good

Relevance:

Good

Presentation:

Good

Recommendation:

Fair

Comments to the Author

This comment will be visible to the Author

:

This paper needs some revision and add some additional information in some parts

such as: Introduction (mild), Method (major), Results and discussion (minor), References (major). I make some comments in the articles, and also there is some inconsistency regarding some terms that authors wrote about in Introduction and Results part. Methods part needs some additional information as well. There is major revision in References parts, author not translate into English. There is some misspelling in English. This article could be accepted but need to be revised as well, details attached.

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International Journal of Evaluation and Research in Education (IJERE)  
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Editor [DELETE](#)

2020-01-16 Subject: [IJERE] Editor Decision

07:52 AM

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Dear Prof/Dr/Mr/Mrs: Assalamu'alaikum... Suci musvita ayu,

We have reached a decision regarding your submission entitled "THE IMPROVEMENT OF KNOWLEDGE AND ATTITUDE ABOUT RISKY PREGNANCY" to International Journal of Evaluation and Research in Education (IJERE), an ERIC indexed journal (<https://bit.ly/2EI8hDj>).

Our decision is to ACCEPT with revisions

extend the paper with at least 8 up to date journal papers  
the name of table must be start with Capital  
Title is not UPPER Case

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2020-03-22 Subject: [IJERE] Editor Decision

04:38 AM

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-- Number of minimum references is 30 references primarily to journal papers  
-- Authors must strictly follow the guide for authors at <http://tiny.cc/ijere>  
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Dear Prof/Dr/Mr/Mrs: . Suci musvita ayu,

It is my great pleasure to inform you that your paper entitled "The improvement of knowledge and attitude about risky pregnancy" is conditionally ACCEPTED and will be

published on the International Journal of Evaluation and Research in Education (IJERE), a SCOPUS and ERIC indexed journal (<https://bit.ly/2EI8hDj>). Congratulations!

Please prepare your final camera ready paper (in MS Word or LATEX file format) adheres every detail of the guide of authors (<http://tiny.cc/iaesijere>, or <http://tiny.cc/ijerelatex> for LATEX file format), and check it for spelling/grammatical mistakes.

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Please ensure that: all references have been cited in your text; Each citation should be written in the order of appearance in the text; The citations must be presented in numbering and CITATION ORDER is SEQUENTIAL [1], [2], [3], [4], .....

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International Journal of Evaluation and Research in Education (IJERE)  
<http://ijere.iaescore.com/index.php/IJERE>



## THE IMPROVEMENT OF KNOWLEDGE AND ATTITUDE ABOUT RISKY PREGNANCY

Suci Musvita Ayu<sup>1</sup>, Lindawati S<sup>2</sup>, Thoharoh Halimatusa'diyah<sup>3</sup>

<sup>1,2,3</sup>Department of Public Health, Ahmad Dahlan University, Yogyakarta, Indonesia

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### ABSTRACT

This study was conducted to the effect of counseling on the increasing knowledge and attitudes about risky pregnancies at SMK Muhammadiyah 1 Wonosobo.

This research is a quasi-experimental research using quasi experiment design with a one group pretest-posttest design approach that aims to determine the effects arising as a result of the existence of certain treatments. Measurements were made before and after treatment, by doing a pretest and posttest. The population in this study consists of students of Grade X and XI, amounting to 900, with a sample of 108 students. The instrument in this study is the questionnaire.

The results of the knowledge variable showed a significant value of 0.003 ( $p < 0.05$ ). These results prove that after the intervention, there is an influence of counseling on the level of knowledge about risky pregnancies at SMK Muhammadiyah 1 Wonosobo. The results of the attitude variable showed a significant value of 0.010 ( $p < 0.05$ ). These results prove that after the intervention, there is the effect of counseling on attitudes about risky pregnancies in SMK Muhammadiyah 1 Wonosobo.

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### 1. INTRODUCTION

Indonesia's 2012 Demographic Health Survey, 1.6% of women and 21% of men between the ages of 15 and 19 are estimated to have sexual relations before the age of 15 years. Adolescents have inadequate access to appropriate sexual and reproductive health information [1]. Adolescent girls and boys in Indonesia who know about fertility only reach 29.0% and 32.3%. Male and female adolescent who know the risk of pregnancy if they have sexual intercourse once, only reach 49.5% and 45.5%, respectively. Male and female adolescent aged 14-19 years who claimed to have friends who had had premarital sexual relations reached 48.6% and 46.5%, respectively [2].

Knowledge is one of the predisposing factors for a risky pregnancy. Lack of knowledge or limited knowledge about high-risk pregnancies and the dangers that will be experienced, will also increase the incidence of high-risk pregnancy, behavioral and socioeconomic also affect the risks in pregnancy [3][4]. Knowledge and practice at the adolescent stage will be the basis of healthy behavior at a later stage in life. Thus, investing in adolescent reproductive health programs during life will be beneficial [5].

Basic knowledge that needs to be given to adolescents includes the introduction of reproductive systems, processes and functions (aspects of adolescent growth and development) and also why adolescents need to mature their marriage age and how to plan a pregnancy to suit their desires and partners to avoid risky pregnancies. The process of reproduction is the process of continuing offspring which is the joint responsibility of both men and women. Therefore both young men and women must know and understand about various aspects of reproductive health including avoiding risky pregnancies [6].

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The current era of communication and information globalization, adolescents can easily access information from various parts of the world with diverse cultural patterns, it can be impact for adolescents to be contaminated with information. This is often even contradictory or even contrary to the culture of their own communities. In this condition, without adequate guidance and assistance, adolescents will be easily affected by misleading information and carried by unhealthy social interactions, adolescents do not yet have a filter strong enough to filter the various information they receive, nor do they have the deterrent power to ward off the dominance of the social environment, due to adolescent personality is still unstable and the level of knowledge is still minimal[7].

In addition to knowledge, adolescent attitudes towards pregnancy at an early age are an important part of being able to understand the phenomenon of an increasing number of cases of early pregnancy which are very risky. Social attitudes and norms are an important part of adolescent life in making decisions to behave risky. Research conducted by shows that adolescents have good knowledge but do not consistently show good attitudes towards pregnancy in their teens. Teenagers have negative attitudes that lead to high risks such as hugging during courtship and kissing forehead [8].

The case of sexual behavior in adolescents is increasingly worrisome because teenage sexual behavior is now exceeding the limits and quite alarming [9]. This is supported by research showing 12.1% of adolescents have sexual behavior at risk of unwanted pregnancy. An unwanted pregnancy in adolescence is caused by several factors, one of which is the educational prospect, some of which do not know how to avoid pregnancy[10]. Early childbirth is a major health risk for mothers, in low and middle income countries, complications of pregnancy and childbirth are the main causes of death in young women aged 15-19 years [11].

Puskesmas with the Adolescent Health Care Services (PKPR) provides health services for school-based and community-based youth. PKPR in Puskesmas is adjusted to the needs of adolescents by increasing the quality of counseling of health personnel and empowering adolescents as peer counselors. Peer counselors are an event to complain to each other, pour out their hearts, strengthen each other and motivate each other among fellow students [12]. Basic counseling skills training must be carried out for PIK-KRR administrators at SMK Muhammadiyah 1 Wonosobo on a module-based basis through reading activities, discussion activities, and practicing activities so that PIK R administrators can have knowledge and insight about the implementation of counseling as an effort to solve problems and can help the implementation of the duties of BK teachers in peer service relations. However, in SMK Muhammadiyah 1 Wonosobo there has not been a training in counseling skills for students even though in SMK Muhammadiyah 1 Wonosobo already has a PIK-KRR program. Therefore the PIK-KRR program at SMK 1 Muhammadiyah Wonosobo did not run well.

Male and female adolescent aged 15-19 years are vulnerable to reproductive problems, one of which is the occurrence of risky pregnancies due to reproductive organs that are not yet mature enough. Therefore, both young men and women must know and understand about various aspects of reproductive health, including avoiding risky pregnancies. Adolescents who have participated in reproductive health counseling can be used as peer counselors cadres in SMK Muhammadiyah 1 Wonosobo.

## 2. RESEARCH METHOD

This research is a quasi-experimental research or quasi experiment design with a one group pretest-posttest design approach that aims to determine the effects arising as a result of certain treatments. This study employed a design using one group from all population. Measurements were made before and after treatment, by pretest and posttest (Notoatmodjo, 2007). The population or research subjects in this study were students of Grade X and XI at SMK Muhammadiyah 1 Wonosobo. The population of this study is 900 students with a sample of 108 students.

## 3. RESULTS AND ANALYSIS

### 3.1 Univariate Analysis

#### a) Characteristics of Subjects

The frequency distribution of the characteristics of respondents in this study was based on age, parental education, parental occupation, parental income and information about teenage pregnancy. This shows that the characteristics of the respondents most of the students aged 17 years were 60 people (55.6%). Regarding the education of mothers and fathers, the majority are elementary school graduates with a total of 63 people (58.3%). Regarding the occupation of mothers, the majority are housewives with a total of 55 people (50.9%). Regarding the occupation of fathers, the majority are farmers amounting to 31 people (28.7%). Regarding family income, most are more than Rp.

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1,709,150, - as many as 65 people (60.2%). The results showed that the majority of students had received information about teenage pregnancy mainly obtained from electronic media.

Based on the description above, it can be seen the frequency distribution of respondents' characteristics based on the age of the students in table 1.

Table 1. Frequency Distribution of Characteristics of Respondents by Age of Students in SMK Muhammadiyah 1 Wonosobo

Characteristics	F	%
<b>Age</b>		
a. 15	5	4,6
b. 16	21	19,4
c. 17	60	55,6
d. 18	20	18,5
e. 19	2	1,9
<b>Mother's Education</b>		
a. Primary School	63	58,3
b. Junior High School	26	24,1
c. Senior High School	19	17,6
<b>Father's Education</b>		
a. Pimary School	63	58,3
b. Junior High School	24	22,2
c. Senior High School	20	18,5
d. College	1	0,9
<b>Mother's Job</b>		
a. Housewife	55	50,9
b. Farmers	13	13,0
c. Trader	21	19,4
d. Entrepreneur	5	4,6
e. Etc	13	12,0
<b>Father's Job</b>		
a. Labor	19	17,6
b. Farmers	31	28,7
c. Trader	18	16,7
f. Entrepreneur	24	22,2
g. Private Sector Worker	9	8,3
h. Etc	7	6,5
<b>Parents Income</b>		
a. < 1.709.150 (Regional Minimum Wage)	43	39,8
b. > 1.709.150 (Regional Minimum Wage)	65	60,2
<b>Obtain Sources Of Information</b>		
a. No Information Obtained	29	26,9
b. Print/Non-print Media	31	28,7
c. Non-Printed/Electronic	48	44,4
<b>Total</b>	108	100,0

b) Description of the level of knowledge about risky pregnancies

The description of the research data of respondents' answers shows that the answers are categorized as good, sufficient and lacking. Knowledge about risky pregnancies before counseling shows that 77 respondents (71.3%) are in the good category and 7 respondents (6.5%) are in the poor category. Knowledge about risky pregnancy after counseling is mostly in the good category amounting to 89 people (82.4%) and less categories amounting to 2 people (1.9%).

Based on the description above, it can be seen the frequency distribution of knowledge about risky pregnancies in table 2.

Table 2. Frequency Distribution of Knowledge about Risks of Pregnancy at SMK Muhammadiyah 1 Wonosobo

Category	Total
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*Title of manuscript is short and clear, implies research results (First Author)*

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Knowledge Level	Less		Enough		Good			
	F	%	f	%	f	%	f	%
<i>Pre-test</i>	7	6,5	24	22,2	77	71,3	108	100
<i>Post-test</i>	2	1,9	17	15,7	89	82,4	108	100

c) Description of attitudes about risky pregnancy

The description of the research data shows that the respondents' answers were categorized as positive and negative attitudes. Attitudes about risky pregnancies prior to counseling were 63 respondents (58.3%) in the positive category and 45 respondents (41.7%) in the negative category. Attitudes about risky pregnancy after counseling were mostly in the positive category amounting to 69 people (63.9%) and the negative category amounting to 39 people (36.1%)

Table 3. Distribution of Frequency of Attitudes about Risk Pregnancy at SMK Muhammadiyah 1 Wonosobo.

Attitude	Category				Total	
	Positive		Negative		f	%
	f	%	f	%		
<i>Pre-test</i>	63	58,3	45	41,7	108	100
<i>Post-test</i>	69	63,9	39	36,1	108	100

d) Prerequisite Test

The results of the normality test were calculated using Kolmogorov Smirnov. The statistical rule for normality test is if  $p > 0.05$ . The results of the normality test of the research variables are if knowledge and attitude can be seen that the pretest and posttest variables have a significance value of less than 0.05 ( $p < 0.05$ ). The results of the pretest and posttest were distributed abnormally, so the hypothesis test analysis was performed using the Wilcoxon Signed Ranks Test.

Tabel 4. Normality Test Result

Variable	Statistic	p
Knowledge		
a. <i>Pre-test</i>	2,665	0,000
b. <i>Post-test</i>	2,878	0,000
Attitude		
a. <i>Pre-test</i>	1,558	0,016
b. <i>Post-test</i>	2,023	0,001

### 3.2 Bivariate Analysis

The results of the pretest and posttest knowledge and attitudes about risky pregnancy with a mean rank value at the time of the pretest was 42.08, while at the posttest was 48.13. The  $Z_{\text{Wilcoxon}}$  Value was 2.989 and the significant value was 0.003 ( $p < 0.05$ ). It can be concluded that there is a significant difference between the results of the pretest and posttest on the level of knowledge about risky pregnancy by conducting counseling. These results prove that after intervention, Ho's hypothesis is rejected and Ha is accepted. It means that there is an effect of health education on the level of knowledge about risky pregnancies at SMK Muhammadiyah 1 Wonosobo in 2018.

The mean rank value at the time of the pretest was 51.76 while at the posttest, it was 39.03.  $Z_{\text{Wilcoxon}}$  value was obtained at 2.590 and a significant value of 0.010 ( $p < 5\%$ ), it can be seen that there are significant differences in the results of the pretest and posttest on attitudes about risky pregnancy with the existence of reproductive health education. These results prove after the intervention, the hypothesis  $H_0$  is rejected and  $H_a$  is accepted. This means that there is an influence of health education on attitudes about risky pregnancies in Wonosobo Vocational School 1 Muhammadiyah in 2018.

Variable	Mean Rank	Sig	$Z_{\text{Wilcoxon}}$	Information
Knowledge		0,003	2,989	Significant

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a. <i>Pre-test</i>	42,08			
b. <i>Post-test</i>	48,13			
Attitude				
a. <i>Pre-test</i>	51,76	0,010	2,590	Significant
b. <i>Post-test</i>	39,03			

## DISCUSSION

### 1. Level of knowledge about risky pregnancy before and after health education is given at SMK Muhammadiyah 1 Wonosobo

The results of the study before counseling showed that respondents who had knowledge in the good category were 77 people (71.3%), and after counseling, the results showed that respondents who had knowledge in the good category were 89 people (82.45%). These results have little difference and prove that most students already have good knowledge of risky pregnancies.

After counseling, 2 students at SMK Muhammadiyah 1 Wonosobo (1.9%) had a lack of knowledge about risky pregnancies. Lack of knowledge is influenced by several factors including education, age, environment, socio-culture and this shows that counseling given to students has been done but there are still students who do not have good knowledge about risky pregnancy. This can be caused by the fact that respondents have not been able to understand well the material provided when counseling about these risky pregnancies, so that the knowledge they can receive is limited. Research conducted by showed that the knowledge of adolescent girls about early pregnancy was mostly in the good category of 280 people (98.6%) [8].

Knowledge is one of the predisposing factors for a risky pregnancy. Lack of knowledge or limited knowledge about high risk pregnancies and the dangers that will be experienced will also increase the incidence of high risk pregnancies. Behavioral and socioeconomic also influence the risk in pregnancy. Knowledge and practice at the adolescent stage will be the basis of healthy behavior at a later stage in life. Thus, investing in adolescent reproductive health programs during life will be beneficial [13].

Efforts that can be done by adolescents in increasing their knowledge are through mass media information and health services in schools and health institutions. Teenagers can dig more information about risky pregnancies so they can avoid unwanted pregnancies. Students who have good knowledge can take part in PIK-KRR activities and become peer counselors so that they can provide information to other students who do not know about risky pregnancies.

### 2. Attitudes about risky pregnancy before and after health education is given at SMK Muhammadiyah 1 Wonosobo

Before counseling, the results of the study showed that respondents who had positive attitudes towards risky pregnancies were 63 people (58.3%) and after counseling, the results showed that respondents who had positive attitudes towards risky pregnancies were 69 people (63.9 %). These results prove that most students have good attitude about risky pregnancy. The positive attitude referred to the tendency to avoid or prevent risky pregnancies.

The attitude of students about risky pregnancies at SMK Muhammadiyah 1 Wonosobo is 45 people (41.7%) people are negative (tendency to approach risky pregnancy behavior). Student attitudes can be influenced by several factors including personal experience, the influence of others, emotional factors, culture, mass media, education and religion. Efforts that can be done by adolescents in enhancing negative attitudes about risky pregnancies is to be more careful about relationships that tend to be abuse of sexual function that can cause pregnancy at young age.

Research conducted by shows that adolescents have good knowledge but do not consistently show good attitudes towards pregnancy in their teens. Teenagers have negative attitudes that lead to high risks such as hugging during courtship and kissing forehead [8].

Attitude is a reaction or response that is still closed from someone which is a combination of cognitive and affective towards an object or stimulus [14]. Adolescent attitudes towards pregnancy at an early age

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are an important part of being able to understand the phenomenon of an increasing number of cases of early pregnancy which ~~is~~ very risky. Social attitudes and norms are an important part of adolescent life in making decisions to behave risky.

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### 3. The effect of reproductive health counseling on increasing knowledge and attitudes about risky pregnancy in SMK Muhammadiyah 1 Wonosobo

Counseling about risky pregnancies conducted at SMK Muhammadiyah 1 Wonosobo shows that from the measurement of pretest and posttest, it can be seen that knowledge and attitudes are increasing. The results of the knowledge variable analysis showed a significant value of 0.003 ( $p < 0.05$ ). These results prove after the intervention, there is an influence of counseling on the level of knowledge about risky pregnancies at SMK Muhammadiyah 1 Wonosobo. The results of the attitude variable analysis showed a significant value of 0.010 ( $p < 0.05$ ). These results prove after the intervention, there is ~~positive~~ effect of counseling on attitudes about risky pregnancies in SMK Muhammadiyah 1 Wonosobo.

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At the time of the research, conditions were very supportive and the process also received positive responses from students due to several influencing factors. These factors are the absence of students doing research at SMK Muhammadiyah 1 Wonosobo, there is no counseling from the Wonosobo Health Office on reproductive health (risky pregnancy), no biology subjects, and the lack of counseling guidance on reproductive health so that students are very enthusiastic to follow the stages of research and are supported by way of delivering interesting counseling such as using powerpoints, material that is packaged simply, delivering clear information will be easily understood and understood by respondents, and at the end of the counseling there is a question and answer session so that it will increase students' knowledge about pregnancy risk properly and correctly.

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The results of several studies of prior knowledge indicate that an increase in adolescent knowledge about reproductive health after health education was conducted [2]. This shows that there is an influence of health education on adolescent knowledge [15]. Wilcoxon statistical test results obtained  $p$  value  $< 0.0001$   $< \alpha = 0.05$  means  $H_0$  was rejected and it was concluded that there was an influence of counseling activities in PKPR on adolescent knowledge about premarital sex. Before conducting counseling in PKPR activities, the majority of respondents had good knowledge of 39.3% and after counseling about premarital sex of respondents who were well knowledgeable were 80.4%. Based on the Wilcoxon test results, with  $P$  value = 0.000, because  $P$  value = 0.000  $< \alpha$  (0.05) then  $H_0$  is rejected and  $H_a$  is accepted, this shows that there is a significant effect of counseling on adolescent knowledge in Binsus 9 Manado High School [16]. Distribution of respondents based on the level of knowledge before counseling about the dangers of free sex with a good frequency of knowledge level of 2 people (5.4%) and after counseling about the dangers of free sex, those with a frequency of good knowledge level amounted to 34 people (91.9%). Setyorini's research shows the same results, namely the influence of health education about the dangers of premarital sex on knowledge and attitudes, the level of knowledge of the dangers of premarital sex. 63 people (95%) [17]. The results of several previous studies indicate that there are differences in knowledge before and after counseling.

Supporting results from research on attitudes conducted by ~~shows~~ that there is an influence of counseling interventions on adolescent attitudes about reproductive health [18]. Before conducting counseling activities that are part of PKPR, respondents behaved well with 69.6%. Whereas after the outreach activities carried out in PKPR, respondents with good attitude became 91.1% and research conducted by Setyorini showed that there was a change in attitude before counseling and after counseling [15][17].

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Information about the level of adolescent knowledge of early pregnancy is an important part of being able to understand the phenomenon of an increasing number of cases of risky pregnancies. This information is also a feedback on the reproductive health program held in schools[8]. Knowledge is one of the predisposing factors for a risky pregnancy. Lack of knowledge or limited knowledge about high risk pregnancies and the dangers that will be experienced, will also increase the incidence of high risk pregnancy, behavior and socioeconomic also affect the risks in pregnancy [13].

Adolescent attitudes about pregnancy are closely related to peer's relationships. Therefore, students need a peer counselor at school to help improve good adolescent attitudes, especially in preventing risky pregnancies. Peer counseling is an event to complain to each other, pour out their hearts, strengthen each other and motivate each other among fellow students. Counseling basic skills training conducted for PIK-KRR administrators in high school based on modules through reading activities, discussion activities, and practicing activities so that PIK R administrators can have knowledge and insight about the implementation of counseling as an effort to solve problems and can help the implementation of teacher tasks BK in peer relationship services [19].

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Counseling is very important in providing information to the public, especially teenagers who are still at risk of unwanted pregnancy. health education is an effort for the public to behave or adopt health behaviors by means of appeal, solicitation, providing information, providing awareness and so on [17]. Counseling can have a positive impact in order to increase knowledge, awareness, willingness and ability of people to live healthy and actively participate in health efforts. Knowledge about risky pregnancy can be influenced by information and knowledge factors obtained from print media, mass media and counseling that have been given. The condition of a supportive school environment for the health of school members such as adequate health facilities and infrastructure, having a UKS that is actively used, will certainly have an impact on good health behavior for school residents.

Pregnancy in adolescence has a high medical risk because in adolescence the reproductive organs are not mature enough to perform its function. Active premarital sex in adolescents is at risk for teenage pregnancy and transmission of sexually transmitted diseases. Unplanned pregnancies for adolescent girls can lead to teenage abortion and marriage. Both will have an impact on the future of adolescents and increase risky pregnancies in adolescents [20].

#### 4. CONCLUSION

There is positive effect of health education on the improvement of knowledge about risky pregnancy in SMK Muhammadiyah 1 Wonosobo and there is positive effect of reproductive health counseling on the improvement of attitudes about risky pregnancy at SMK Muhammadiyah 1 Wonosobo.

#### ACKNOWLEDGEMENTS

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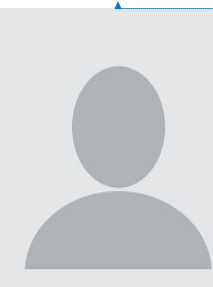
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	<p>My name is Lindawati S, I'm a college student at the Faculty of Public Health, Ahmad Dahlan University, Yogyakarta</p>

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# THE IMPROVEMENT OF KNOWLEDGE AND ATTITUDE ABOUT RISKY PREGNANCY TO ADOLESCENTS AT THE MUHAMMADIYAH 1 VOCATIONAL HIGH SCHOOL IN WONOSOBO

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## ABSTRACT

Reproductive health is an important issue in Suite Development Goals (SDGs). One of them is the problem of Maternal Mortality Rate (MMR) giving birth is closely related to risky pregnancies in adolescence, so adolescents are very vulnerable to their reproductive health.

This study was conducted to look at the effect of counseling on the increasing knowledge and attitudes about risky pregnancies at The Muhammadiyah 1 Vocational High School in Wonosobo

This research is a quasi-experimental research using quasi experiment design with a one group pretest-posttest design approach that aims to determine the effects arising as a result of the existence of certain treatments. Measurements were made before and after treatment, by doing a pretest and posttest. The population in this study consists of students of Grade X and XI, amounting to 900, with a sample of 108 students. The instrument in this study is the questionnaire.

The results of the knowledge variable showed a significant value of 0.003 ( $p < 0.05$ ). These results prove that after the intervention, there is an influence of counseling on the level of knowledge about risky pregnancies at The Muhammadiyah 1 Vocational High School in Wonosobo. The results of the attitude variable showed a significant value of 0.010 ( $p < 0.05$ ). These results prove that after the intervention, there is the effect of counseling on attitudes about risky pregnancies in The Muhammadiyah 1 Vocational High School in Wonosobo.

There is an effect of reproductive health counseling on increasing knowledge and attitudes about risky pregnancy at The Muhammadiyah 1 Vocational High School in Wonosobo.

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## 1. INTRODUCTION

The case of sexual behavior in adolescents is increasingly worrisome because teenage sexual behavior is now exceeding the limits and quite alarming [1]. This is supported by research showing 12.1% of adolescents have sexual behavior at risk of unwanted pregnancy. An unwanted pregnancy in adolescence is caused by several factors, one of which is the educational prospect, some of which do not know how to avoid pregnancy [2]. Early childbirth is a major health risk for mothers, in low and middle income countries, complications of pregnancy and childbirth are the main causes of death in young women aged 15-19 years [3].

Indonesia's 2012 Demographic Health Survey, 1.6% of women and 21% of men between the ages of 15 and 19 are estimated to have sexual relations before the age of 15 years. Adolescents have inadequate access to appropriate sexual and reproductive health information [4]. Adolescent girls and boys in Indonesia who know about fertility only reach 29.0% and 32.3%. Adolescents who know the risk of pregnancy if they have sexual intercourse once, only reach 49.5% and 45.5%, respectively. Male and female adolescent aged 14-19 years who claimed to have friends who had had premarital sexual relations reached 48.6% and 46.5%, respectively [5].

Knowledge is one of the predisposing factors for a risky pregnancy. Less of knowledge or limited knowledge about high-risk pregnancies and the dangers that will be experienced, will also increase the incidence of high-risk pregnancy, behavioral and socioeconomic also affect the risks in pregnancy [6][7]. Knowledge and practice at the adolescent stage will be the basis of healthy behavior at a later stage in life. Thus, investing in adolescent reproductive health programs during life will be beneficial[8].

Basic knowledge that needs to be given to adolescents includes the introduction of reproductive systems, processes and functions (aspects of adolescent growth and development) and also why adolescents need to mature their marriage age and how to plan a pregnancy to suit their desires and partners to avoid risky pregnancies. The process of reproduction is the process of continuing offspring which is the joint responsibility of both men and women. Therefore both young men and women must know and understand about various aspects of reproductive health including avoiding risky pregnancies[9].

The current era of communication and information globalization, adolescents can easily access information from various parts of the world with diverse cultural patterns, so that opportunities for adolescents to be contaminated with information are often even contradictory or even contrary to the culture of their own communities. In this condition, without adequate guidance and assistance, adolescents will be easily affected by misleading information and carried by unhealthy social interactions, given that adolescents do not yet have a filter strong enough to filter the various information they receive, nor do they have the deterrent power to ward off the dominance of the social environment, due to adolescent personality is still unstable and the level of knowledge is still minimal [10].

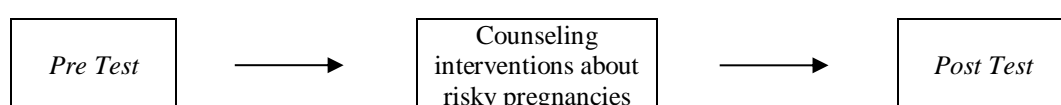
In addition to knowledge, adolescent attitudes towards pregnancy at an early age are an important part of being able to understand the phenomenon of an increasing number of cases of early pregnancy which are very risky. Attitude is a willingness or readiness to behave [11]. Social attitudes and norms are an important part of adolescent life in making decisions to behave risky. Research conducted by Dewi shows that adolescents have good knowledge but do not consistently show good attitudes towards pregnancy in their teens. Adolescents have negative attitudes that lead to high risks such as hugging during courtship and kissing forehead [12].

Primary health care with the Adolescent Health Care Services (AHCS) provide health services for school-based and community-based youth. AHCS in primary health care is adjusted to the needs of adolescents by increasing the quality of counseling of health personnel and empowering adolescents as peer counselors. Peer counselors are an event to complain to each other, pour out their hearts, strengthen each other and motivate each other among fellow students [13]. Basic counseling skills training must be carried out for Information and Health Counseling Center Teenage Reproduction (IHC-CTR) administrators at The Muhammadiyah 1 Vocational High School in Wonosobo on a module-based basis through reading activities, discussion activities, and practicing activities so that Youth Information and Counseling Center (YIAC) administrators can have knowledge and insight about the implementation of counseling as an effort to solve problems and can help the implementation of the duties of counseling guidance teachers in peer service relations. However, in The Muhammadiyah 1 Vocational High School in Wonosobo there has not been a training in counseling skills for students even though in The Muhammadiyah 1 Vocational High School in Wonosobo already has a IHC-CTR program. Therefore the IHC-CTR program at The Muhammadiyah 1 Vocational High School in Wonosobo did not run well.

Adolescents aged 15-19 years are vulnerable to reproductive problems, one of which is the occurrence of risky pregnancies due to reproductive organs that are not yet mature enough. Therefore, both adolescents must know and understand about various aspects of reproductive health, including avoiding risky pregnancies. The purpose of this study was to see an improvement of knowledge and attitudes about risky pregnancies in adolescents at The Muhammadiyah 1 Vocational High School in Wonosobo. Adolescents who have participated in reproductive health counseling can be used as peer counselors cadres in The Muhammadiyah 1 Vocational High School in Wonosobo.

## 2. RESEARCH METHOD

This research is a quasi-experimental research or quasi experiment design with a one group pretest-posttest design approach that aims to determine the effects arising as a result of certain treatments. This study employed a design using one group from all population. Measurements were made before and after treatment, by pretest and posttest This design Retrieved from two groups as tried variables, by producing two initial observations (O1) and final observations (O2). X1 is an authorized intervention of a risky pregnancy, O1 is an initial calculation consisting of O2 Remeasurement of monitoring groups [11].



The population or research subjects in this study were students of Grade X and XI at The Muhammadiyah 1 Vocational High School in Wonosobo amounting to 900 students. Probability sampling technique used is

proportionate random sampling. The number of samples taken in this study uses minimum sample based on Slovin formula:

$$n = \frac{N}{(N(d)^2 + 1)}$$

$$n = \frac{900}{(900(0.1)^2 + 1)}$$

$$n = \mathbf{90}$$

Information:

n = minimum sample size

N = total population

D = the desired degree of accuracy of 0.1 [14]

The minimum number of samples in this study were 90 people. The number of samples in this study was added to 10% of the total sample, which is 99 people. The number of samples for each class was obtained through the following calculation (Sugiyono, 2010: 73):

$$nD = \frac{\text{Population of Each Class}}{\text{Total Population off All Classes}} \times \text{Sample counts}$$

Information:

nD = Sample quota for each class

Table 1. Proportional Sampling

No	Class	Number of Students	Calculation	Result	Number of Samples
1	AK X1	32	$\frac{32}{900} \times 99$	3.5	4
2	AK X2	32	$\frac{32}{900} \times 99$	3.5	4
3	AK X3	32	$\frac{32}{900} \times 99$	3.5	4
4	AK X4	32	$\frac{32}{900} \times 99$	3.5	4
5	RPL X1	32	$\frac{32}{900} \times 99$	3.5	4
6	RPL X2	32	$\frac{32}{900} \times 99$	3.5	4
7	RPL X3	32	$\frac{32}{900} \times 99$	3.5	4
8	TKJ X1	32	$\frac{32}{900} \times 99$	3.5	4
9	TKJ X2	32	$\frac{32}{900} \times 99$	3.5	4
10	TKJ X3	32	$\frac{32}{900} \times 99$	3.5	4
11	TSM X1	32	$\frac{32}{900} \times 99$	3.5	4

No	Class	Number of Students	Calculation	Result	Number of Samples
12	TSM X2	32	$\frac{32}{900} \times 99$	3.5	4
13	TSM X3	32	$\frac{32}{900} \times 99$	3.5	4
14	TSM X4	32	$\frac{32}{900} \times 99$	3.5	4
15	AKXI1	35	$\frac{35}{900} \times 99$	3.9	4
16	AK XI2	34	$\frac{34}{900} \times 99$	3.7	4
17	AK XI3	35	$\frac{35}{900} \times 99$	3.9	4
18	RPL XI1	35	$\frac{35}{900} \times 99$	3.9	4
19	RPL XI2	35	$\frac{35}{900} \times 99$	3.9	4
20	RPL XI3	34	$\frac{34}{900} \times 99$	3.7	4
21	TKJ XI1	35	$\frac{35}{900} \times 99$	3.9	4
22	TKJ XI2	34	$\frac{34}{900} \times 99$	3.7	4
23	TKJ XI3	35	$\frac{35}{900} \times 99$	3.9	4
24	TSM XI1	35	$\frac{35}{900} \times 99$	3.9	4
25	TSM XI2	35	$\frac{35}{900} \times 99$	3.9	4
26	TSM XI3	35	$\frac{35}{900} \times 99$	3.9	4
27	TSM XI4	35	$\frac{35}{900} \times 99$	3.9	4
	<b>Total</b>	<b>900</b>			<b>108</b>

The instrument used in this study was a closed questionnaire consisting of two parts. The first part contains the identities and characteristics of the respondents and the second part is the instrument about knowledge and attitudes about risky pregnancy. Validity and reliability tests were carried out in high schools with the same characteristics as Muhammadiyah Vocational High School in Wonosobo.

### 3. RESULTS AND ANALYSIS

#### 3.1 Univariate Analysis

##### a) Characteristics of Subjects

The frequency distribution of the characteristics of respondents in this study was based on age, parental education, parental occupation, parental income and information about teenage pregnancy. This shows that the characteristics of the respondents most of the students aged 17 years were 60 people

(55.6%). Regarding the education of mothers and fathers, the majority are elementary school graduates with a total of 63 people (58.3%). Regarding the occupation of mothers, the majority are housewives with a total of 55 people (50.9%). Regarding the occupation of fathers, the majority are farmers amounting to 31 people (28.7%). Regarding family income, most are more than Rp. 1,709,150, - as many as 65 people (60.2%). The results showed that the majority of students had received information about teenage pregnancy mainly obtained from electronic media.

Based on the description above, it can be seen the frequency distribution of respondents' characteristics based on the age of the students in table 2.

Table 2. Frequency Distribution of Characteristics of Respondents by Age of Students in The Muhammadiyah 1 Vocational High School in Wonosobo

Characteristics		F	%
Age			
a.	15	5	4,6
b.	16	21	19,4
c.	17	60	55,6
d.	18	20	18,5
e.	19	2	1,9
Mother's Education			
a.	Primary School	63	58,3
b.	Junior High School	26	24,1
c.	SeniorHigh School	19	17,6
Father's Education			
a.	Pimary School	63	58,3
b.	Junior High School	24	22,2
c.	Senior High School	20	18,5
d.	College	1	0,9
Mother's Job			
a.	Housewife	55	50,9
b.	Farmers	13	13,0
c.	Trader	21	19,4
d.	Entrepreneur	5	4,6
e.	Etc	13	12,0
Father's Job			
a.	Labor	19	17,6
b.	Farmers	31	28,7
c.	Trader	18	16,7
f.	Entrepreneur	24	22,2
g.	Private Sector Worker	9	8,3
h.	Etc	7	6,5
Parents Income			
a.	< 1.709.150 (Regional Minimum Wage)	43	39,8
b.	> 1.709.150 (Regional Minimum Wage)	65	60,2
Obtain Sources Of Information			
a.	No Information Obtained	29	26,9
b.	Print/Non-print Media	31	28,7
c.	Non-Printed/Electronic	48	44,4
<b>Total</b>		<b>108</b>	<b>100,0</b>

b) Description of the level of knowledge about risky pregnancies

The description of the research data of respondents' answers shows that the answers are categorized as good, sufficient and less knowledge. Knowledge about risky pregnancies before counseling shows that 77 respondents (71.3%) are in the good category and 7 respondents (6.5%) are in the less category. Knowledge about risky pregnancy after counseling is mostly in the good category amounting to 89 people (82.4%) and less categories amounting to 2 people (1.9%).

Based on the description above, it can be seen the frequency distribution of knowledge about risky pregnancies in table 3.

Table 3. Frequency Distribution of Knowledge about Risks of Pregnancy at The Muhammadiyah 1 Vocational High School in Wonosobo

Knowledge Level	Category						Total	
	Less		Enough		Good		f	%
	F	%	f	%	f	%		

<i>Pre-test</i>	7	6,5	24	22,2	77	71,3	108	100
<i>Post-test</i>	2	1,9	17	15,7	89	82,4	108	100

c) Description of attitudes about risky pregnancy

The description of the research data shows that the respondents' answers were categorized as positive and negative attitudes. Attitudes about risky pregnancies prior to counseling were 63 respondents (58.3%) in the positive category and 45 respondents (41.7%) in the negative category. Attitudes about risky pregnancy after counseling were mostly in the positive category amounting to 69 people (63.9%) and the negative category amounting to 39 people (36.1%)

Table 4. Distribution of Frequency of Attitudes about Risk Pregnancy at The Muhammadiyah 1 Vocational High School in Wonosobo.

Attitude	Category				Total	
	Positive		Negative			
	f	%	f	%	f	%
<i>Pre-test</i>	63	58,3	45	41,7	108	100
<i>Post-test</i>	69	63,9	39	36,1	108	100

d) Prerequisite Test

The results of the normality test were calculated using Kolmogorov Smirnov. The statistical rule for normality test is if  $p > 0.05$ . The results of the normality test of the research variables are if knowledge and attitude can be seen that the pretest and posttest variables have a significance value of less than 0.05 ( $p < 0.05$ ). The results of the pretest and posttest were distributed abnormally, so the hypothesis test analysis was performed using the Wilcoxon Signed Ranks Test.

Tabel 5. Normality Test Result

Variable	Statistic	P
Knowledge		
a. <i>Pre-test</i>	2,665	0,000
b. <i>Post-test</i>	2,878	0,000
Attitude		
a. <i>Pre-test</i>	1,558	0,016
b. <i>Post-test</i>	2,023	0,001

### 3.2 Bivariate Analysis

The results of the pretest and posttest knowledge and attitudes about risky pregnancy with a mean rank value at the time of the pretest was 42.08, while at the posttest was 48.13. The  $Z_{\text{Wilcoxon}}$  Value was 2.989 and the significant value was 0.003 ( $p < 0.05$ ). It can be concluded that there is a significant difference between the results of the pretest and posttest on the level of knowledge about risky pregnancy by conducting counseling. These results prove that after intervention,  $H_0$ 's hypothesis is rejected and  $H_a$  is accepted. It means that there is an effect of health education on the level of knowledge about risky pregnancies at The Muhammadiyah 1 Vocational High School in Wonosobo in 2018.

The mean rank value at the time of the pretest was 51.76 while at the posttest, it was 39.03.  $Z_{\text{Wilcoxon}}$  value was obtained at 2.590 and a significant value of 0.010 ( $p < 5\%$ ), it can be seen that there are significant differences in the results of the pretest and posttest on attitudes about risky pregnancy with the existence of reproductive health education. These results prove after the intervention, the hypothesis  $H_0$  is rejected and  $H_a$  is accepted. This means that there is an influence of health education on attitudes about risky pregnancies in Wonosobo Vocational School 1 Muhammadiyah in 2018.

Variable	Mean Rank	Sig	$Z_{\text{Wilcoxon}}$	Information
Knowledge				
a. <i>Pre-test</i>	42,08	0,003	2,989	Significant
b. <i>Post-test</i>	48,13			
Attitude				
a. <i>Pre-test</i>	51,76	0,010	2,590	Significant
b. <i>Post-test</i>	39,03			

## **DISCUSSION**

### **1. Level of knowledge about risky pregnancy before and after health education is given at The Muhammadiyah 1 Vocational High School in Wonosobo**

The results of the study before counseling showed that respondents who had knowledge in the good category were 77 people (71.3%), and after counseling, the results showed that respondents who had knowledge in the good category were 89 people (82.45%). These results have little difference and prove that most students already have good knowledge of risky pregnancies.

After counseling, 2 students at The Muhammadiyah 1 Vocational High School in Wonosobo (1.9%) had a less of knowledge about risky pregnancies. Less of knowledge is influenced by several factors including education, age, environment, socio-culture and this shows that counseling given to students has been done but there are still students who do not have good knowledge about risky pregnancy. This can be caused by the fact that respondents have not been able to understand well the material provided when counseling about these risky pregnancies, so that the knowledge they can receive is limited. Research conducted by Dewi showed that the knowledge of adolescent girls about early pregnancy was mostly in the good category of 280 people (98.6%) [12].

Knowledge is one of the predisposing factors for a risky pregnancy. Less of knowledge or limited knowledge about high risk pregnancies and the dangers that will be experienced will also increase the incidence of high risk pregnancies. Behavioral and socioeconomic also influence the risk in pregnancy. Knowledge and practice at the adolescent stage will be the basis of healthy behavior at a later stage in life. Thus, investing in adolescent reproductive health programs during life will be beneficial [15].

Efforts that can be done by adolescents in increasing their knowledge are through mass media information and health services in schools and health institutions. Adolescents can dig more information about risky pregnancies so they can avoid unwanted pregnancies. Students who have good knowledge can take part in IHC-CTR activities and become peer counselors so that they can provide information to other students who do not know about risky pregnancies.

### **2. Attitudes about risky pregnancy before and after health education is given at The Muhammadiyah 1 Vocational High School in Wonosobo**

Before counseling, the results of the study showed that respondents who had positive attitudes towards risky pregnancies were 63 people (58.3%) and after counseling, the results showed that respondents who had positive attitudes towards risky pregnancies were 69 people (63.9 %). These results prove that most students have good attitude about risky pregnancy. The positive attitude referred to in this study is the tendency to avoid or prevent risky pregnancies.

The attitude of students about risky pregnancies at The Muhammadiyah 1 Vocational High School in Wonosobo is known to number 45 people (41.7%) people are negative (tendency to approach risky pregnancy behavior). Student attitudes can be influenced by several factors including personal experience, the influence of others, emotional factors, culture, mass media, education and religion [16]. Efforts that can be done by adolescents in enhancing negative attitudes about risky pregnancies is to be more careful about relationships that tend to be related to the abuse of sexual function that can cause pregnancy at young age.

Research conducted by Dewi shows that adolescents have good knowledge but do not consistently show good attitudes towards pregnancy in their teens. Adolescents have negative attitudes that lead to high risks such as hugging during courtship and kissing forehead [12].

Attitude is a reaction or response that is still closed from someone which is a combination of cognitive and affective towards an object or stimulus [16]. Adolescent attitudes towards pregnancy at an early age are an important part of being able to understand the phenomenon of an increasing number of cases of early pregnancy which are very risky. Attitude is a willingness or readiness to behave [11]. Social attitudes and norms are an important part of adolescent life in making decisions to behave risky.

### **3. The effect of reproductive health counseling on increasing knowledge and attitudes about risky pregnancy in The Muhammadiyah 1 Vocational High School in Wonosobo**

Counseling about risky pregnancies conducted at The Muhammadiyah 1 Vocational High School in Wonosobo shows that from the measurement of pretest and posttest, it can be seen that knowledge and attitudes are increasing. The results of the knowledge variable analysis showed a significant value of 0.003 ( $p < 0.05$ ). These results prove after the intervention, there is an influence of counseling on the level of knowledge about risky pregnancies at The Muhammadiyah 1 Vocational High School in Wonosobo. The results of the attitude variable analysis showed a significant value of 0.010 ( $p < 0.05$ ). These results prove after the intervention, there is the effect of counseling on attitudes about risky pregnancies in The Muhammadiyah 1 Vocational High School in Wonosobo.

At the time of the research, the conditions and conditions were very supportive and the process also received positive responses from students due to several influencing factors. These factors are the absence of

students doing research at The Muhammadiyah 1 Vocational High School in Wonosobo, there is no counseling from the Wonosobo Health Office on reproductive health (risky pregnancy), no biology subjects, and the less of counseling guidance on reproductive health so that students are very enthusiastic to follow the stages of research and are supported by way of delivering interesting counseling such as using powerpoints, material that is packaged simply, delivering clear information will be easily understood and understood by respondents, and at the end of the counseling there is a question and answer session so that it will increase students' knowledge about pregnancy risk properly and correctly.

The results of several studies of prior knowledge indicate that an increase in adolescent knowledge about reproductive health after health education was conducted [5]. This shows that there is an influence of health education on adolescent knowledge [17]. Wilcoxon statistical test results obtained  $p$  value  $< 0,0001$   $< \alpha = 0.05$  means  $H_0$  was rejected and it was concluded that there was an influence of counseling activities in AHCS on adolescent knowledge about premarital sex. Before conducting counseling in AHCS activities, the majority of respondents had good knowledge of 39.3% and after counseling about premarital sex of respondents who were well knowledgeable were 80.4%. Based on the Wilcoxon test results, with  $P$  value = 0,000, because  $P$  value = 0,000  $< \alpha$  (0.05) then  $H_0$  is rejected and  $H_a$  is accepted, this shows that there is a significant effect of counseling on adolescent knowledge in Binsus 9 Manado High School [18]. Distribution of respondents based on the level of knowledge before counseling about the dangers of free sex with a good frequency of knowledge level of 2 people (5.4%) and after counseling about the dangers of free sex, those with a frequency of good knowledge level amounted to 34 people (91.9%). Setyorini's research shows the same results, namely the influence of health education about the dangers of premarital sex on knowledge and attitudes, the level of knowledge of the dangers of premarital sex. 63 people (95%) [19]. The results of several previous studies indicate that there are differences in knowledge before and after counseling.

Supporting results from research on attitudes conducted by Udu show that there is an influence of counseling interventions on adolescent attitudes about reproductive health [20]. Before conducting counseling activities that are part of AHCS, respondents behaved well with 69.6%. Whereas after the outreach activities carried out in AHCS, respondents with good attitude became 91.1% and research conducted by Setyorini showed that there was a change in attitude before counseling and after counseling [17][19].

Information about the level of adolescent knowledge of early pregnancy is an important part of being able to understand the phenomenon of an increasing number of cases of risky pregnancies. This information is also a feedback on the reproductive health program held in schools [12]. Knowledge is one of the predisposing factors for a risky pregnancy. Less of knowledge or limited knowledge about high risk pregnancies and the dangers that will be experienced, will also increase the incidence of high risk pregnancy, behavior and socioeconomic also affect the risks in pregnancy [15].

Adolescent attitudes about pregnancy are closely related to peer's relationships. Therefore, students need a peer counselor at school to help improve good adolescent attitudes, especially in preventing risky pregnancies. Peer counseling is an event to complain to each other, pour out their hearts, strengthen each other and motivate each other among fellow students. Counseling basic skills training conducted for IHC-CTR administrators in high school based on modules through reading activities, discussion activities, and practicing activities so that YIAC administrators can have knowledge and insight about the implementation of counseling as an effort to solve problems and can help the implementation of teacher tasks counseling guidance in peer relationship services [21].

Counseling is very important in providing information to the public, especially adolescents who are still at risk of unwanted pregnancy. Notoatmodjo argues that health education is an effort for the public to behave or adopt health behaviors by means of appeal, solicitation, providing information, providing awareness and so on [11]. Counseling can have a positive impact in order to increase knowledge, awareness, willingness and ability of people to live healthy and actively participate in health efforts. Knowledge about risky pregnancy can be influenced by information and knowledge factors obtained from print media, mass media and counseling that have been given. The condition of a supportive school environment for the health of school members such as adequate health facilities and infrastructure, having a school health unit that is actively used, will certainly have an impact on good health behavior for school residents.

Pregnancy in adolescence has a high medical risk because in adolescence the reproductive organs are not mature enough to perform its function. Active premarital sex in adolescents is at risk for teenage pregnancy and transmission of sexually transmitted diseases. Unplanned pregnancies for adolescent girls can lead to teenage abortion and marriage. Both will have an impact on the future of adolescents and increase risky pregnancies in adolescents [22].

#### 4. CONCLUSION

There is an influence of health education on the improvement of knowledge about risky pregnancy in The Muhammadiyah 1 Vocational High School in Wonosobo and there is an effect of reproductive health



counseling on the improvement of attitudes about risky pregnancy at The Muhammadiyah 1 Vocational High School in Wonosobo.

Counseling can help counseling services at school and can form peer counselors so students have good knowledge and attitudes related to risky pregnancies, as well as increase student motivation to choose good and positive relationships. Students who have never received information related to pregnancy are at risk so students are expected to dig deeper information by attending school health counseling, looking for information in the mass media, books, or asking people who are experts in their fields. The Muhammadiyah 1 Vocational High School in Wonosobo can be an example school for other schools. These results can be used as a reference for conducting research related to risky pregnancy by developing other methods.


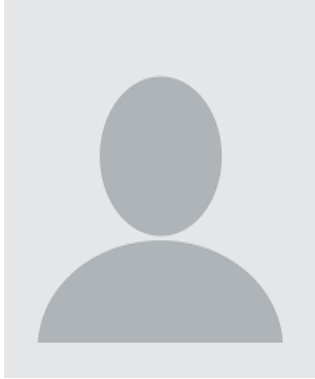

## ACKNOWLEDGEMENTS

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