

## THE INFLUENCE OF MODULE-BASED EDUCATION TO ADOLESCENT WOMEN ON INCREASING SELF EFFICACY IN CASES PREMENSTRUAL SYNDROME

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### ABSTRAK : PENGARUH PENDIDIKAN BERBASIS MODUL PADA REMAJA WANITA TERHADAP PENINGKATAN EFIKASI DIRI PADA KASUS PREMENSTRUAL SYNDROME

Latar Belakang: Masalah kesehatan reproduksi remaja saat ini masih menjadi perhatian karena dapat membahayakan kesejahteraan wanita dan berdampak negatif pada kualitas hidup. Terdapat perubahan masalah fisik mental dan emosional inilah yang membentuk periode yang berbeda dari kehidupannya.

Tujuan: mengetahui pengaruh pemberian edukasi berbasis modul pada remaja putri terhadap peningkatan *self efficacy* pada kasus premenstrual syndrome.

Metode penelitian menggunakan quasi eksperimen yang dapat diartikan sebagai metode penelitian yang digunakan untuk mencari pengaruh perlakuan tertentu terhadap yang lain, kondisi yang terkendali dengan menggunakan total sampling.

Hasil: Dari 60 responden dilakukan pretest yang rata-rata tingkat pengetahuan siswi berada pada kategori kurang sebanyak 93,3%. Pada posttest mengalami peningkatan dan rata-rata pengetahuan siswi pada kategori cukup sebanyak 81,7% dan kategori baik sebanyak 18,3%. Dari hasil uji Wilcoxon menunjukkan bahwa nilai  $p = \text{Value}$  sebesar 0,00 ( $p\text{-value} < 0,05$ )

Kesimpulan: terdapat pengaruh antara pemberian edukasi menggunakan modul terhadap peningkatan *self efficacy* siswi tentang premenstrual syndrome.

Saran: Diharapkan siswi lebih sering tau banyak membaca tentang edukasi premenstrual syndrome agar siap menghadapi masa menarche.

Kata kunci : Efikasi Diri, Modul, Premenstrual Syndrome, Remaja Putri

### ABSTRACT

Background: Adolescent reproductive health issues today are still a concern because they can endanger women's well-being and negatively impact quality of life. There are changes in these physical, mental, and emotional problems that shape different periods of his life.

Objective: determine the effect of providing module-based education to adolescent girls on increasing self-efficacy in cases of premenstrual syndrome.

Methods: using quasi-experiments which can be interpreted as research methods used to look for the effect of certain treatments on other, controlled conditions using total sampling.

Results: Of the 60 respondents conducted a pretest whose average level of knowledge of female students was in the less category as much as 93.3%. In the posttest, there was an increase and the average knowledge of female students in the category was quite 81.7% and the good category was 18.3%. From the results of the Wilcoxon test shows that the value of  $p = \text{Value}$  is 0.00 ( $p\text{-value} < 0.05$ ).

Conclusion: there is an influence between the provision of education using modules on increasing students' self-efficacy about premenstrual syndrome.

Suggestion: It is hoped that students will read more often about premenstrual syndrome education to be ready for menarche.

Keywords: Adolescent Women, Module-Based Education, Self Efficacy, Premenstrual Syndrome

## INTRODUCTION

The World Health Organization (WHO) defines adolescence as the period from 10-19 years. Adolescence is characterized by rapid growth and development with a significant increase in the need for macronutrients and micronutrients, adolescence is one of the windows of opportunity to break the cycle of intergenerational malnutrition (WHO, 2018). Adolescence is a transition from childhood to adulthood, with a period of growth and development both physically, psychologically and intellectually. According to the World Health Organization (WHO), adolescents are said to be residents in the age range of 10-19. Meanwhile, according to the regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2014, adolescents are said to be residents in the age range of 10-18 years (Pusdatin RI, 2018). The number of adolescents in the world has increased, estimated at 1.9 billion or about 18% of the world's population (WHO, 2018). The increase also occurred in Indonesia, according to the 2010 Population Census the number of adolescents reached 43.5 million people or about 18% of the population and in South Sulawesi the number of adolescents reached 1.4 million people (Badan Pusat Statistika Sulsel, 2019).

Adolescents will experience rapid physical changes when adolescents enter puberty. One of these physical changes is the ability to carry out the reproductive process. But many phenomena show that some adolescents do not know and understand about reproductive health, for example about problems in menstruation related to dysmenorrhea and pregnancy (Ernawati dkk, 2018). Various problems that exist in adolescents, especially adolescent girls, are very vulnerable to reproductive health. Reproductive health according to WHO (World Health Organization) is a state of physical, mental and social intact, not only free from disease or disability in all aspects related to the reproductive system, functions and processes. Reproductive health is a condition in which humans can enjoy their sexual life and are able to carry out their reproductive functions and processes in a healthy and safe manner (WHO, 2018).

Today, attention to adolescent health is an important issue. The World Health Organization has also identified the educational needs of adolescent girls as a Priority. Adolescent reproductive health problems can jeopardize women's well-being and negatively impact quality of life. There are changes in these physical, mental, and emotional problems that shape different periods of his life. Many concerns about women's reproductive health, International Conference on Population and Development

Emphasizes the importance of young women's access to reproductive health services and counseling (Ziapour A, et al, 2020; Kohan S., et. al. 2021). Premenstrual syndrome (PMS) or premenstrual syndrome is the symptoms experienced by women before entering the monthly period (menstruation). Generally, PMS symptoms appear 1-2 weeks before the first day of menstruation each month. The severity of the symptoms is severe enough to become a disorder, severe forms of PMS include premenstrual dysphoric disorder (PMDD) which is characterized by psychological symptoms in the form of irritable mood depression / sadness, unstable emotions, anxiety and somatic symptoms in the form of mastalgia, headache, edema, weight gain, syncope, and parathesia (Abeje A. and Berhanu Z, et.al. 2019).

Premenstrual dysphoric disorders begin in early adolescence and continue throughout the reproductive age group. This prevalence rate shows the need for increased knowledge and awareness about PMDD in adolescent girls, so that interventions can be started early to reduce or prevent the negative impact of PMDD on various aspects of life (Geta.TG et al. 2020). The prevalence of premenstrual syndrome varies in different countries. For example, the prevalence of premenstrual syndrome was reported to be 12.2% in France and 98.2% in Iran. The global prevalence of premenstrual syndrome is 47.8% (Teshome GG et al, 2020).

In Indonesia, the prevalence of premenstrual syndrome in female students in Surabaya was 39.2% experiencing severe symptoms and 60.8% experiencing mild symptoms. The impact of premenstrual syndrome on the academic activities of female students is a decrease in study concentration, an increase in class attendance and a decrease in activity on campus (Christiany, I. H ;2016). The results of a survey of 242 students at Jimma University, Ethiopia, with an average age of 20 years found that 99.6% of participants experienced premenstrual syndrome. A small percentage of respondents experienced one symptom out of many symptoms of premenstrual syndrome during the menstrual cycle in the past 12 months. It was reported that 27% of participants had premenstrual dysphoric disorder, 14% often missed classes and 15% could not take exams due to the severity of premenstrual syndrome. (Halbreich et al. 2017). To diagnose premenstrual syndrome, the doctor will conduct questions and answers about the complaints experienced by the patient, since when the complaint was felt, and how the patient's menstrual cycle. Records of the patient's menstrual cycle are needed

to diagnose premenstrual syndrome (Cindy and Martha, 2020).

Information about menarche should be obtained from parents, but most parents consider this taboo and difficult to convey information due to limited knowledge. However, information can also be obtained through the role of health workers, one of which is by providing structured education. Education is an interactive process that encourages learning with efforts to add new knowledge, attitudes and skills. (Smeltzer dan Bare dalam Susiyanti E.2016). Self-efficacy and learning outcomes can be improved by improving the quality of the learning process. As for ways to maximize learning, teachers can use constructivist learning such as problem-based learning (Smith & Hung, 2016). Today PBL is widely used in educational institutions globally and has proven to be superior to traditional learning (Alrahlah, 2016). PBL can potentially increase self-efficacy because based on constructivism, effective learning occurs if learners reconstruct their knowledge through experiential learning.

The use of innovative learning resources can also affect self-efficacy such as modules. The combination of learning modules and PBL makes learning more interesting, fun and makes it easier for students to understand the concept of the digestive system. The combination of modules and PBL facilitates independent learning and makes it easier for students to understand the material (Widayanti, 2020). The PBL module has advantages over ordinary modules because each description of material, activities and evaluation questions is integrated with aspects of problem-solving abilities. PBL modules are equipped with materials, case examples and questions that encourage learners to think. The presentation of the material is equipped with clear images so as to illustrate the process of digestion of food. Interesting module contents with appropriate color compositions can motivate learners in learning (Pramesti, dkk., 2019). Structured education is by providing programmatic health education using LCD media, laptops, and other media. (Wahyunah, 2016).

Yolantia image research, et.al. (2021) shows that the application of problem-based learning modules affects self-efficacy and student learning outcomes. In addition, correlation analysis shows that  $r_{count} > r_{table}$  ( $0.7277 > 0.2461$ ) which means that there is a significant relationship between self-efficacy and student learning outcomes. Self-efficacy

has a positive effect on student achievement: the higher the self-efficacy, the higher the learning outcomes. (Uchira, et.al. 2018). Research that shows there is a socio-cultural influence (values and beliefs) on family roles with a validity level of 2,633 (P Value = 0.009), there is an influence of family functions (economy, communication, education, protection, religion) on family roles with a validity level of 2,169 (P-Value = 0.031), no influence of family self-efficacy factors (performance experience, vicar experience, social persuasion, emotional state) with a validity level of 1,195 (P-Value = 0.233), there was an influence of family roles (educating, supervising, encouraging, role modeling, as friends, counselors) on risky behavior with a validity level of 2.093 (P-Value = 0.037).

Based on preliminary observations of SMAN 21 Tamalanre Makassar. The number of young women in class X is 190 and class XI is 203, the total number of young women is 393 people. SMAN 21 Tamalanre Makassar is one of the highest number of female students in Tamalanrea sub-district. The results of a preliminary study on students of SMAN 21 Tamalanrea Makassar showed that out of 393 adolescent girls at SMAN 21 Tamalanrea Makassar, there were 276 people (70.20%) who had premenstrual syndrome. This prompted researchers to conduct a study on "the effect of module-based education in adolescent girls on increasing self-efficacy in cases of premenstrual syndrome"

## RESEARCH METHODS

The research design uses a quantitative approach with a Quasi-Experimental research design. One group pretest-posttest is an activity that provides an initial test (pretest) before being given treatment, after being given treatment then given a final test (posttest). This research was conducted in 2022.

## RESEARCH RESULT

### Univariate Analysis

Based on the table 1, most of the respondents were at the age of 15 years as many as 47 students (78.3%) and at the age of 16 years as many as 13 female students (21.7%), while the students who experienced menarche were mostly at the age of over 10 years as many as 41 students (68.3%), the age of menarche at the age of 10 years and under 10 years as many as 19 students (31.7%) and the last education of respondent mothers was almost all at the elementary-high school education level as many as 54 mothers (90.0%) and at the tertiary education level as many as 6 mothers (10.0%).

**Table 1**  
**Characteristics of Respondents**

Characteristics of Respondents	f	%
Age		
15 Year	47	78.3
16 Year	13	21.7
Age of Menarche		
≤ 10 Year	19	31.7
>10 Year	41	68.3
Mother's Education		
ES-JHS-SHS	54	90.0
College	6	10.0

\*\*\*Data Primer 2022

**Table 2**  
**Overview of Self Efficacy Levels**

Category	Pre Test		Post Test	
	F	%	f	%
Tall	0	0.0	18	30.0
Keep	24	40.0	42	70.0
Low	36	60.0	0	0.0
Total	60	100	60	100

\*\*\*Data Primer 2022

Based on table 2, before being given education using ebooks, most of the respondents' self-efficacy was in the low category of 36 female students (60.0%), the level of moderate self-efficacy was 24 female students (40.0%) and there were no respondents who had a high level of self-efficacy.

After education using the module, most respondents had a moderate level of self-efficacy as many as 42 female students (70.0%) and high self-efficacy as many as 18 respondents (30.0%), and there were no respondents with a low level of self-efficacy.

**Table 3**  
**Overview of knowledge of menarche**

Category	Pre Test		Post Test	
	F	%	F	%
Good	0	0.0%	11	18.3%
Enough	4	6.7%	49	81.7%
Less	56	93.3%	0	0.0%

\*\*\*Data Primer 2022

Based on table 3, before education using modules was carried out, most of the respondents' knowledge was in the category of less than 56 respondents (93.3%), knowledge in the category was sufficient as many as 4 respondents (6.7%) and there were no respondents who had a good level of knowledge. After providing education using modules. Most respondents had knowledge about menarche in the sufficient category as many as 11 respondents (18.3%) and in the good knowledge category as many as 11 respondents (18.3%).

#### Analisis Bivariat

Based on table 4 above, the average self-efficacy value of respondents before providing education using modules was 43.41 with a minimum score of 40.00 and a maximum score of 48.00 and after providing education using the module, the average score of the test results was 53.66 with a minimum value of 44.00 and a maximum value of 71.00, while for knowledge before providing education through the module, the average value

was 21.00 with a minimum value of 10.00 and a maximum value of 65.00 after education was carried out using the module, the average value was 69.91

with a minimum value of 40.00 and a maximum value of 90.00. with a P-Value of 0.00.

**Table 4**  
**The Effect of Module Education**

Category	Pre Test		Post Test		P-Value
	Mean	Min-Max	Mean	Min-Max	
Self Efficacy	43.41	40.00-48.00	53.66	44.00-71.00	0.00
Knowledge	21.00	10.00-65.00	69.91	40.00-90.00	0.00

\*\*\*Wilcoxon test

## DISCUSSION

### Self-Efficacy in cases of pre-menstrual syndrome

From the results of statistical tests show that the P-Value value is 0.00 which means there is an influence between providing education using modules on increasing students' self-efficacy about pre-menstrual syndrome, this can be seen from the difference in the average value of students' self-efficacy levels before and after using e-books. In this study, the first step taken was to measure self-efficacy and adolescents through pre-test questions, after the post test was carried out followed by a presentation session on pre-menstrual syndrome, after the presentation of the material, discussion and question and answer were carried out. Some students looked quite curious and very enthusiastic because there were many questions from students related to the PMS material presented.

The discussion and question and answer session ended with the distribution of electoral modules about PMS to female students that can be accessed anywhere and anywhere. Ovalusia is carried out every week with discussions and questions and answers, of course, the homeroom teachers are very helpful in observing the students to always access the electronic modules about PMS that are distributed. Observation is carried out periodically every time the class teacher assists them. Self-efficacy is very important for someone in behavior. Social learning theory states that self-efficacy is the ability of a person who can perform a behavior. The provision of health education about Pre Menstrual Syndrome (PMS) through module media, is an effort to improve the ability and knowledge of female students about Pre Menstrual Syndrome (PMS) this can be seen from the efficacy value of female students that almost all female students have less efficacy before providing education using modules while the efficacy value of each student increases after providing education about PMS using e-books.

Based on this study, before providing education using modules about PMS, almost all respondents had a low level of efficacy because, almost all female students had never received education about PMS, this became one of the causes of students' lack of knowledge about PMS and certainly had an impact on the level of efficacy of each student.

Self-efficacy merupakan suatu keyakinan dan disertai kepercayaan berdasarkan kapasitas kemampuannya, sehingga dapat melakukan sebuah pengendalian dengan batasan mereka sendiri dari fungsi dan peristiwa (Flammer, 2017). Self-efficacy merupakan kemampuan seseorang untuk melakukan suatu bentuk kontrol diri terhadap orang itu sendiri. Self efficacy dapat diubah dan ditingkatkan menggunakan tiga sumber yaitu, pengalaman seseorang dalam menguasai sesuatu, pengalaman vikarius, dan pembangkit emosi (Datak, Sylvia, & Manuntung, 2018). Sehingga untuk menambah self efficacy pada seseorang perlu adanya Tindakan yang dapat mempengaruhinya.

Self Efficacy mempengaruhi tujuan dan perilaku seseorang dan dipengaruhi oleh tindakan seseorang dan kondisi lingkungannya. Keyakinan diri akan menentukan seberapa besar kesempatan lingkungan dan rintangan akan diterima dan mempengaruhi pilihan aktivitas, seberapa besar upaya akan dilakukan dalam aktivitas tersebut, dan seberapa lama seseorang akan tekun menghadapi rintangan (Putri & Fakhruddiana, 2019).

Based on the results of IDHS (2018), it was found that 53% of adolescents had discussions about menstruation before they experienced menarche. In addition, several research results show that in line with adolescent sexuality education by peer educators has a significant effect on adolescent knowledge and attitudes about the dangers of free sex (Wulandari, 2021). The results of this study show that peer education programs have an influence on adolescent attitudes about Pre-Menstrual Syndrome (PMS) self-efficacy. The results of this study showed

that there were significant differences in adolescents' attitudes about PMS before and after peer education ( $p < 0.05$ ). Attitude is a person's closed response to a particular object that involves the relevant opinion and emotion factors (happy-dishappy, agree-disagree, good-not good). One of the efforts that can be done is through health education. Education can reduce anxiety and increase maternal self-efficacy in caring for low birth weight (Suyami, Rustina, & Agustini, 2017). Research from Fitriah, (2019) shows that through sepsis a person with educational media can encourage the formation of one's self-confidence, so the results of this study that there is an influence by diabetes self-management education with the maxim to increase self-efficacy that can control or manage a disease suffered.

This is in line with research conducted by (Lestari & Dewi, 2018) that high self-efficacy has a strong effort in facing challenges, although the trigger for negative actions is high, but adolescents are not discouraged because their abilities are high. Based on the results of a study conducted in July 2021, it was found that Adolescent Peer Pressure at SMP 1 Jombang showed low peer pressure with a percentage of 74.2% (72 adolescents), experienced high peer pressure with a percentage of 20.6% (20 adolescents), experienced moderate peer pressure with a percentage of 5.2% (5 adolescents). According to the researchers' assumptions, self-efficacy is very influential on reamaja activities because it can reduce the quality of health, interfere with learning concentration, and achievement and activity, especially for adolescent girls, especially those who attend school. Students who have high self-efficacy can do good PMS management through lifestyle and diet changes as well as self-handling that can be done to relieve PMS symptoms. The increased incidence of premenstrual syndrome can be caused by its management and prevention is less known. So that less adolescent knowledge can cause a more severe incidence of premenstrual syndrome and can interfere with daily activities.

### **Knowledge About Pre Menstrual Syndrome**

In this study, from the results of the data analysis conducted, a P-Value value of 0.00 was obtained, which means that the P-Value value is smaller than the significance value, so it can be concluded that there is an influence of giving the PMS module on increasing students' knowledge about PMS. From the results of the pre-test conducted, the average level of knowledge of female students was in the category of less than 93.3%, sufficient knowledge was 6.7% and there were no students who had good knowledge, while after

intervening with the provision of modules, the average knowledge of female students from the post-test results increased, namely there were no female students who had less knowledge, and the average knowledge of female students was in the sufficient category as much as 81.7% and the good category as much as 18.3%.

Education about menstruation is recommended to be applied to adolescent girls who have not experienced menstruation as a way to foster readiness to face menarche. Furthermore, if individuals know what things to do when experiencing the same condition, for example how to deal with menstrual blood discharge that can occur at any time, how to wear and wash pads, and how to self-care during menstruation, then it can be expected that individuals are able to behave well when facing menstruation.

The results of this study are in line with the results of research from Nora (2020) about the relationship of knowledge with the level of anxiety facing menarche-pada students at SDN 02 Lubuk Buaya Pa-dang, it was found that more than half of female students had less knowledge about menstruation, namely (59.4%) this happened because students had less knowledge about menarche, did not know the symptoms of menarche, and physical changes that occurred during menarche. The results of this study were also strengthened by research from Ningsih and Yulianti (2016) entitled The relationship between the level of knowledge about menstruation and anxiety in adolescent girls found that most of them had less knowledge (67.5%) because based on analysis from researchers found that the information found by adolescents from parents and parents did not discuss the depth of medical knowledge about menstruation but Only ways to deal with menstruation, and because teenagers still behave childishly, the majority of teenagers do not like knowledge that requires seriousness in their fingers.

According to Rosyida (2019), adolescent girls who have good knowledge about menstruation will easily understand about physiological changes that can cause psychological stability, so that adolescents can anticipate anxiety. Furthermore, Islami (2017) said that for adolescent girls who have low knowledge about menstruation, adolescent girls will have difficulty in knowing physiological changes that can cause psychological instability, so that it can make adolescents easier to feel worried, afraid and anxious when facing menarche.

Based on the researchers' analysis, the lack of knowledge in adolescent girls about premenstrual syndrome is caused by inaccurate sources of

information obtained and the lack of awareness of adolescent girls to obtain correct information. The impact that can arise because students are not ready to face menarche include fear, confusion, inferiority, feeling abnormal, and panicking. In situations like this it requires considerable knowledge about menarche and with a positive attitude, it is hoped that parents will be able to provide alternatives to solving problems appropriately, so that children no longer think that menarche is not a taboo, and should not be feared.

## CONCLUSION

There is an influence of education using module media about PMS on increasing students' self-efficacy. There is an education provision using modules on students' knowledge about PMS

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