

# The Influence of Health Promotion on Female Students' Behaviour in SMA An - Nizam Medan about Endometriosis

Muhammad Rusda<sup>\*</sup>, Dara Hanifa Rahman

*Faculty of Medicine, Universitas Sumatera Utara, Medan, Indonesia*

## Abstract

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**\*Correspondence:** Muhammad Rusda. Faculty of Medicine, Universitas Sumatera Utara, Medan, Indonesia. E-mail: [mrusdaharahap@yahoo.com](mailto:mrusdaharahap@yahoo.com)

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Endometriosis is a gynaecological disorder that is often characterised by dysmenorrhea, dyspareunia and or infertility. These symptoms are very common and often found as a symptom of other diseases so that endometriosis is more difficult to diagnose or often diagnosed late. Therefore, diseases like this would be better if we prevent them before they suffer. Although endometriosis is caused by multifactor, we can still do simple prevention and be positive. However, several other factors cause this prevention not to be applied in daily life such as lack of knowledge, inadequate facilities or an environment that does not support. Therefore, health promotion as a medium of information and the establishment of community self-reliance is expected to shift bad habits or form new good habits to be more vigilant and prevent endometriosis. The study was conducted using a quasi-experimental design with the pretest-posttest method and was processed using the Wilcoxon signed-rank test. Based on the results of data analysis, there is a significant increase in the behaviour of female students before and after health promotion.

## Introduction

Endometriosis is the presence of endometrial glands and stroma growth in an aberrant and heterotopic location outside the uterus [1], [2], [3], [4]. The aetiology of endometriosis is still unclear but is thought to be caused by many factors including the involvement of the hormone estrogen. The incidence of endometriosis in the world reaches 10%. This number shows that the incidence of endometriosis is quite high and requires more attention. Clinical symptoms that are often displayed by endometriosis are not typical such as dysmenorrhea, dyspareunia and or infertility. These symptoms are very common and are often found as a symptom of other diseases.

Variations in other symptoms of endometriosis are very diverse depending on the location of the lesion. Therefore, the selection of endometriosis therapy must be on target according to the symptoms caused. However, a definite aetiology has not been found so treatment is usually symptomatic and patients can experience recurrence after a period of treatment.

Because of the relationship between endometriosis and estrogen, the menstrual cycle and age of miners also contribute. Very few women remember exactly when their first menstruation or remember when the first day of their period every month. Similarly, pelvic pain when menstruation is often overlooked. This shows that ordinary people still feel unfamiliar with endometriosis.

Knowledge about endometriosis is still very low so that they do not intervene in any way to

prevent this situation. However, several studies have shown that high knowledge does not guarantee harmony in their practices and actions. Knowledge alone is not enough to make someone change their behaviour to prevent endometriosis, but also needs encouragement from the surrounding environment that supports infrastructure.

Health promotion is an approach to behavioral health factors; then their activities cannot be separated from the factors that determine the behaviour. According to Lawrence Green in the book [5], the behavior is determined by three main factors and the health promotion approach leads to these factors. First, the predisposing factors are factors that facilitate the occurrence of the behaviour in a person or society, in the form of knowledge and an overview of attitudes towards what will be done. Thus, health promotion implemented in the form of providing information about endometriosis or health messages and health education.

The purpose of this activity is to improve knowledge and attitudes about endometriosis, straighten traditions, beliefs, or values that are not conducive to healthy behaviours. Secondly, enabling factors such as the availability of facilities, equipment or infrastructures that support the behavior. So, health promotion is carried out in the form of community empowerment. The purpose of this activity is to facilitate themselves to behave well. This activity does not mean giving health facilities or infrastructure as a whole but provides the ability or expertise to support the provision of the necessary facilities. Third, reinforcing factors. Knowledge, attitudes and facilities that sometimes have not produced the expected behaviour in a society that needed reinforcing factors such as community leaders who set a good example in the prevention of endometriosis, such as greater scale forming official regulations, laws, and so forth.

The Jakarta Declaration states that the priority of health promotion is to improve community capacity and empower individuals and ensure health promotion infrastructure. Based on the above definition, health promotion needs to be socialised and is a cross-sector responsibility. Therefore, this study was conducted to observe the effect of health promotion on the actions of female students in SMA An-Nizam Medan on the topic of endometriosis. The aim of this study to see the effect of health promotion carried out by researchers, in the form of new good actions or habits.

## Material and Methods

The type of research used was quasi-experimental design with the pretest-posttest method. This study was conducted for two months starting in

September 2018 until November 2018 at the High School An-Nizam Medan. The school environment was chosen as the location of the study aimed at facilitating follow up and equalising the educational background of the research subjects to reduce external determinants that could influence the results of the study. The population is all female students of An-Nizam High School Medan. Determination of the number of samples using the total sampling method, that is, all population numbers were taken as a sample, 102 people.

This study uses a measurement tool in the form of a questionnaire that has been validated and tested for reliability. The intervention group came from the same group. Data collection is done twice, namely just before health promotion and one month after health promotion with the same instrument with the modification of the position number statement. The first measurement is that just before health promotion aims to collect preliminary data as a research control. Then, health promotion is carried out with an interactive (two-way) lecture method with the help of powerpoint media. The theme of health promotion is about endometriosis. The intervention that given is health promotion related to endometriosis. The second measurement, a month after health promotion, aims to see the effect of health promotion carried out by researchers, in the form of new good actions or habits.

Before data collection from research, subjects are carried out; the research subject must have understood the research to be carried out and signed informed consent. After being approved by the Ethical Committee, the research subject was given a questionnaire and filled it in according to the circumstances of each individual. Then, the data was processed with the Wilcoxon signed-rank test ( $\alpha = 0.05$ ).

## Results

All research samples filled out the questionnaire items in full so that no research subjects were excluded.

**Table 1: Dependent Variable Frequency Distribution in Respondents**

Variable	Health Promotion					
	Pretest			Posttest		
	N	%	N	%	N	
Action						
Positive	27	26,47	44	43,14		
Neutral	67	65,69	54	52,94		
Negative	8	7,84	4	3,92		

Based on the data processing of the research results in Table 1 shows that there are differences in the proportion of actions at the pretest and posttest. When depicted in Figure 1, this change is a positive

change where positive numbers shift to the right and vice versa. The positive category, which was originally 26.47% increased to 43.14%.

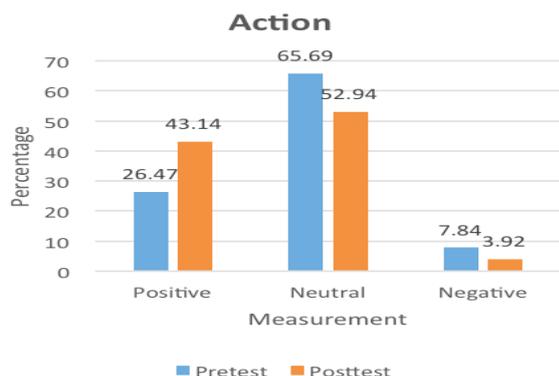


Figure 1: Percentage Frequency Distribution of Knowledge

The behaviour of respondents before and after health promotion is illustrated in Table 2. Tests on actions produce  $p = 0.001$  or  $p < 0.05$ . Judging from the mean rank where positive rank (45.26%) is greater than the negative rank (44.34%) means that the differences that occur are parallel to the intervention. Health promotion causes an increase in the respondent's behaviour.

Table 2: Comparison of Respondents Action Before and After Health Promotion

Variable	Health Promotion			
	Pretest		Posttest	
	N	%	N	%
Action				
Positive	27	26,47	44	43,14
Neutral	67	65,69	54	52,94
Negative	8	7,84	4	3,92

Z-table score in the study with  $\alpha = 0.05$  is 1.645 (Z distribution table). The z-count value obtained in the measurement of the action is 3.678. When compared with z-table, the z-count score is greater. This means that  $H_0$  is rejected or  $H_a$  is accepted; there is a difference or increase in the value of the action due to health promotion intervention. Testing through Z score strengthens the hypothesis test with p-value which also rejects  $H_0$ .

## Discussion

The general objective of holding a health promotion, according to WHO is to change the behaviour of individuals or communities in the health sector. So, in this study observed changes in the actions of respondents who showed a positive difference. The proportion of the categories of positive actions before health promotion was 26.47%. After health promotion, the number in the positive action

category increased to 43.14%.

The precautionary measures for endometriosis observed in this study include the act of maintaining hygiene during menstruation, calculating the menstrual cycle and regular checks to the doctor. According to [8] research, one of the efforts to reduce menstrual-related disorders is to get used to hygienic behaviour, especially the vulva hygiene. Similarly, the menstrual cycle must be calculated every month because there is an association with the hormone estrogen which is thought to be the main role in the incidence of endometriosis.

According to [6], there are three aspects of behaviour, namely knowledge, attitudes, and actions. These three elements influence each other. A person's behaviour is determined by knowledge, attitudes, beliefs, traditions and environment and many other aspects. If a person has a high knowledge of a thing, it is expected that the person also has a positive attitude and behaviour as well. However, these three aspects do not always go hand in hand as they may be influenced by many other factors, such as motivation, intentions, experience and so on. The effect of health promotion at a community also depends on other determinants that not all people will experience increased after the intervention [9], [10], [11].

It can be concluded that health promotion has a significant influence on the knowledge and attitudes of female students in An-Nizam High School Medan about endometriosis. Health promotion has the potential to increase positive knowledge and attitudes in the subject of research. Therefore, health promotion about endometriosis can be considered for more implementation and promotion in various regions as an effort to reduce the incidence of endometriosis. Medical and paramedics can also raise endometriosis material as an extension topic. Similarly, the government can take a role as a facilitator of implementation of various programs, including health promotion of endometriosis.

The little amount of knowledge absorbed through health promotion is the limitation of each individual, so health promotion methods and media must still be adjusted to the target community that will be addressed. Interactive and two-way methods are better choices so that the percentage of understanding goals is greater. Moreover, if health promotion is carried out repeatedly, it will produce more significant differences.

## References

1. Advincula A., Truong M., Lobo R. Comprehensive Gynecology. 2017; 19:423-442.e4.

2. Bulun SE. Mechanisms of Disease: Endometriosis. *N Engl J Med.* 2009; 360(3):268-279.  
<https://doi.org/10.1056/NEJMra0804690> PMID:19144942
3. Hestiantoro A. *Konsensus Tata Laksana Nyeri Haid pada Endometriosis.* HIFERI POGI, Jakarta, 2013.
4. Mutter GL. *Pathology of the Female Reproductive Tract*, 22, p.501. e3. Elsevier, 2014.
5. Notoatmodjo S. *Promosi Kesehatan Teori dan Aplikasi*, Penerbit Rineka Cipta. Jakarta, 2010.
6. Notoatmodjo S. *Ilmu Perilaku Kesehatan*, Penerbit Rineka Cipta. Jakarta, 2010.
7. Rusda M. Do We Need To Treat Any of Uterine Abnormality in Fertility Seeking Patient? Repository Institusi Universitas Sumatera Utara, 2014. [Online], Accessed 29 December 2015. Available at: [repository.usu.ac.id/handle/123456789/54385](http://repository.usu.ac.id/handle/123456789/54385).
8. Santoso., Taviv, Yulian., Yahya., Mayasari, Rika. Pengaruh Promosi Kesehatan terhadap Pengetahuan, Sikap dan Perilaku Masyarakat tentang Filariasis. *Buletin Penelitian Sistem Kesehatan.* 2014; 17(2).
9. Supatmi., Adyani, Asta. *Tindakan Personal Hygiene (Vulva Hygiene) Saat Menstruasi pada Siswi SMP Muhammadiyah X Surabaya*, Universitas Muhammadiyah Surabaya. 2011. [Online], Available at : [journal.um-surabaya.ac.id](http://journal.um-surabaya.ac.id).
10. Susilowati D. *Promosi Kesehatan*, KEMENKES RI. Jakarta, 2016.
11. Wei M, Cheng Y, Bu H, Zhao Y, Zhao W. Length of menstrual cycle and risk of endometriosis: A meta-analysis of 11 case-control studies. *Medicine.* 2016; 95(9).  
<https://doi.org/10.1097/MD.0000000000002922> PMID:26945395  
PMCID:PMC4782879