

Knowledge and Dysmenorrhea Management Among Midwifery Students

Reineldis Elsidianastika Trisnawati¹, Makrina Sedista Manggul², Putriatri Krimasusini
Senudin³, Olivera Agnes Adar⁴
{reineldys@gmail.com¹, editamanggul1992@gmail.com², atri124@gmail.com³,
Oliveraagnesadar@gmail.com⁴}

¹⁻⁴Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia

Abstract. This study aims to determine the level of knowledge and management of dysmenorrhea among diploma three midwifery students at Universitas Katolik Indonesia Santu Paulus Ruteng. This research method is descriptive, which will describe the real situation in the field systematically and accurately regarding the facts of the object of study as well as observation of the consequences that occur and look for facts that may be the cause through certain data, with a sample of 101 respondents. The method of sampling uses purposive sampling. The data was obtained by filling out a knowledge questionnaire and attempted restraint of dysmenorrhea using google forms. The results showed that most respondents had less knowledge about dysmenorrhea as many as 46 respondents (45.6%), and efforts to deal with dysmenorrhoea were known to be mostly unfavourable as many as 67 respondents (66.4%). It is hoped that students will learn more about dysmenorrhea and its handling efforts to increase insight and be able to carry out the appropriate or appropriate treatment for overcoming dysmenorrhea.

Keywords: adolescent, dysmenorrhea, knowledge

1 Introduction

The adolescent is a developmental stage that lasts from childhood to maturity. Maturity in question is maturity in physical, emotional, social, intellectual and spiritual terms [1]. Individuals in adolescence intended are between 11 years old and 20 years old. Young women often experience discomfort during menstruation or dysmenorrhea. This complaint usually only arises 2 or 3 years after the first menstruation (menarche). Dysmenorrhea is menstruation accompanied by pain caused by spasms of the uterine muscles [2], [3]. Some women can have abnormal menstruation. Types of menstrual disorders that many women experience include premenstrual syndrome, amenorrhea (not menstruating) and dysmenorrhea (pain during menstruation) [4], [5]. Dysmenorrhea is one of the common complaints in women, and almost all women experience it. This pain arises simultaneously with menstruation, before menstruation, or it can also be immediately after menstruation [6]. This menstrual pain occurs due to prostaglandins, which cause the uterine muscles to contract. In some women, the menstrual pain can be faint, but for others, it can feel strong and even disrupt activities. This pain is usually known as dysmenorrhoea [7].

Menstrual pain, or dysmenorrhea, is quite common throughout the world. Over 50% of women worldwide have menstrual discomfort on average [3], [8]. Primary dysmenorrhea

affected 59.7% of women aged 12 to 17 in the United States in 2012, with moderate dysmenorrhea affecting 37%, medium dysmenorrhea 12%, and severe dysmenorrhea causing 23.6% of patients missing school. In 2012, dysmenorrhea affected 75% of adolescent women in Egypt, with mild cases representing 55.3% of cases, moderate cases at 30%, and severe cases for 14.8%. According to a study done in India, moderate dysmenorrhea affected 63.29% of people, whereas moderate dysmenorrhoea affected 30.37%. Primary dysphoria had a 46% incidence rate in Japan that same year, and 27.3% of patients missed school. While in Sweden, about 70% of adolescents have dysmenorrhea.

Around 54.89% of cases of primary-type dysmenorrhoea occur in Indonesia, with the remainder being secondary dysmenorrhoea patients. Around 74–80% of adolescents report lightheaded dysmenorrhea, affecting them on a prevalence scale from 43% to 93%. Endometriosis is estimated to affect 25–38% of adolescents in Indonesia who do not respond well to treatments for female pain, and 15% of these adolescents claim that the condition restricts their activities. According to data from the Riskesdas of the Ministry of Health of the Republic of Indonesia, 60–70% of women experience dysmenorrhea. 54.89% of women experience primary type dysmenorrhea, whereas the remaining 45.11% face secondary type [9], [10].

Study results stated that the dysmenorrhea experienced by young women greatly impacted their learning activities, namely reduced concentration while studying [11], [12]. Previous research explained the impact on people with dysmenorrhea, including fainting or unconsciousness, nausea and vomiting, headaches, and tiredness. Around 70%-90% of menstrual pain cases occur when adolescents who experience menstruation pain are affected by academic, social and sports activities [5], [13]. Various efforts have been made to overcome dysmenorrhea, such as the results of previous studies stating that they can use several therapies, namely analgesic drugs. Medications that can inhibit the production of prostaglandin hormones such as aspirin, indomethacin, and mefenamic acid. In addition to drug therapy, treatment can also be done with light exercise, eating nutritious foods, and reducing sugar and caffeine levels. Other efforts can be made in simple ways, such as compressing with hot temperatures, to hypnotic means [14], [15].

Based on a preliminary study conducted by the author, it is known that 80% of respondents experience dysmenorrhea. Of the ten obstetric students interviewed regarding their level of knowledge about dysmenorrhea, the vast majority (60%) did not know about dysmenorrhea. The handling efforts made when experiencing dysmenorrhea also vary from person to person, such as taking painkillers, warm compresses on the abdomen, drinking warm water, and lying down; some are sorted on the abdomen /waist. Respondents also said dysmenorrhea significantly interferes with learning activities and lectures. From the description above, the researcher is interested in researching " Descriptive Study of The Level of Knowledge and Dysmenorrhea Management Among Diploma Three Midwifery Students at Universitas Katolik Indonesia Santu Paulus Ruteng".

2 Method

The research was conducted online using google forms. The type of research is descriptive quantitative and uses survey methods with questionnaire tools. According to [16], presenting descriptive research is a study that aims to systematically and accurately describe the actual situation in the field regarding the object of study, observe the consequences, and look for facts that may be the cause through specific data. The variables studied are the description of knowledge and efforts to contain dysmenorrhea.

The population in this study was all 1st level students of the D3 Midwifery Study Program, which amounted to 131 people. The sampling technique is non-probability sampling with a purposive sampling type, which is carried out by assigning samples by selecting samples among the population according to the researcher's wishes so that the sample can represent previously known population characteristics [17]. The number of samples is taken using the Slovin formula. The number of samples in this study was taken using the following formula:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{N}{1 + 131(0.05)^2}$$

$$n = \frac{N}{1 + 131 \times 0.0025}$$

$$n = \frac{131}{1 + 0.3}$$

$$n = \frac{131}{1.3}$$

$$n = 100.7$$

$$n = 101$$

Note
N = Population
n = Sample size
d = Relative provisions (5% or 0.05)

Based on calculations with the sampling formula, the sample size obtained in this study was 101 persons.

3 Results and Discussion

3.1 Knowledge about dysmenorrhea

Results of the distribution frequency of knowledge about dysmenorrhea among diploma three midwifery students can be seen in the table below:

Table 1. Distribution frequency of knowledge about dysmenorrhea

Dysmenorrhea Knowledge	Frequency	Percentage
Good	21	20.8
Enough	34	33.6
Less	46	45.6
Sum	101	100.0

Based on table 1 known, out of 101 respondents, most of them had less knowledge about dysmenorrhea, namely 46 respondents (45.6%), sufficient knowledge of as many as 34 respondents (33.6%) and good knowledge of as many as 21 respondents (20.8%).

3.2 Management of dysmenorrhea

Results of the distribution frequency of dysmenorrhea management among diploma three midwifery students can be seen in the table below:

Table 2. Distribution frequency of dysmenorrhea management

Dysmenorrhea Handling	Frequency	Percentage
Good	34	33.7
Not Good Enough	67	66.3
Sum	101	100.0

Based on table 2, it is known that out of 101 respondents, most of the dysmenorrhea handling was not good, with as many as 67 respondents (66.4%) and good handling 34 respondents (33.7%).

According to the study's findings, which describe the respondents' knowledge of dysmenorrhea and their attempts to treat it, level 1 students in the D3 midwifery study program at the Catholic University of Indonesia Santu Paulus Ruteng have a largely inadequate understanding of the condition (45.6%). Based on efforts to deal with dysmenorrhea, most are not good (66.3%). Based on research results provided by [6], [18], [19], they are reported that knowledge is the conclusion of knowing, which occurs after humans have perceived a particular item. Humans detect the world with sight, hearing, smell, taste, and taste senses. Two factors affect knowledge: internal factors, including education, experience, and age, and external factors, including socioeconomics, culture, mass media, and resources. Two factors affect knowledge: internal factors, including education, experience, and age, and external factors, including socioeconomics, culture, mass media, and resources [20], [21].

The majority of the respondents' knowledge of dysmenorrhea was missing (56.6%), according to a prior study on the relationship between dysmenorrhea knowledge and handling in students of SMA Negeri 15 Medan, which obtained a value of $p=0.000$ based on the chi-square findings. It is clear from the study's findings that treatment for dysmenorrhea and knowledge of the disease is significantly correlated [3]. The better efforts made to treat dysmenorrhea in young women, the more knowledge is available regarding the disease [18]; according to findings by [8], [20], the greater teenage understanding of dysmenorrhea, the better adolescent attitude toward managing dysmenorrhea. This research found that adolescents' understanding of dysmenorrhea was poor, which made treatment efforts ineffective.

So from this study, the lack of knowledge of adolescents can be influenced, one of which is the lack of information about dysmenorrhea. Because the more information that teenagers get, this can also increase their knowledge. Conversely, the less information obtained, the less adolescent knowledge related to dysmenorrhea [22].

4 Conclusions

Based on the results of the research that has been carried out and the discussion that has been previously described regarding "Overview of Knowledge and Efforts to Handle Dysmenorrhea in Level 1 Students of the D3 Midwifery Study Program at the Catholic University of Indonesia Santu Paulus Ruteng", a conclusion was obtained; knowledge of dysmenorrhea of the 101 respondents, it was known that most had less knowledge about dysmenorrhea, namely 46 respondents (45.6%), sufficient knowledge as many as 34

respondents (33.6%) and good knowledge as many as 21 respondents (20.8%). So it can be concluded that the majority of respondents knowledge is lacking and sufficient. Moreover, dysmenorrhea handling dysmenorrhea, out of 101 respondents, it was known that most of dysmenorrhea handling was not good as many as 67 respondents (66.4%) and good handling by as many as 34 respondents (33.7).

References

- [1] E. N. Hadi, "Menstrual hygiene management of Junior High School Students in rural areas of Indonesia (Study in Tinambung Sub-District, Poliweli Mandar, West Sulawesi)," *J. Int. Dent. Med. Res.*, vol. 14, no. 3, pp. 1230–1235, 2021.
- [2] H. Janoowalla, "The impact of menstrual hygiene management on adolescent health: The effect of Go! pads on rate of urinary tract infection in adolescent females in Kibogora, Rwanda," *Int. J. Gynecol. Obstet.*, vol. 148, no. 1, pp. 87–95, 2020, doi: 10.1002/ijgo.12983.
- [3] F. N. Chéileachair, "Coping with dysmenorrhea: A qualitative analysis of period pain management among students who menstruate," *BMC Womens. Health*, vol. 22, no. 1, 2022, doi: 10.1186/s12905-022-01988-4.
- [4] J. Min, "Effects of menstrual self-management education program on knowledge and behavior of menstrual self-management in high school girls," *Korean J. Women Heal. Nurs.*, vol. 24, no. 3, pp. 310–321, 2018, doi: 10.4069/kjwhn.2018.24.3.310.
- [5] E. Eldestrand, "Supporting young women with menstrual pain- Experiences of midwives working at youth clinics," *Sex. Reprod. Healthc.*, vol. 34, 2022, doi: 10.1016/j.srhc.2022.100795.
- [6] E. Krusz, "Menstrual health and hygiene among Indigenous Australian girls and women: Barriers and opportunities," *BMC Women's Health*, vol. 19, no. 1. 2019, doi: 10.1186/s12905-019-0846-7.
- [7] J. R. Stothard, "Connecting female genital schistosomiasis and menstrual hygiene initiatives," *Trends Parasitol.*, vol. 36, no. 5, pp. 410–412, 2020, doi: 10.1016/j.pt.2020.02.007.
- [8] M. Armour, "Self-care strategies and sources of knowledge on menstruation in 12,526 young women with dysmenorrhea: A systematic review and meta-analysis," *PLoS One*, vol. 14, no. 7, 2019, doi: 10.1371/journal.pone.0220103.
- [9] P. R. Andani, "Knowledge, attitude and practice of menstrual hygiene among primary school adolescents in Surabaya, Indonesia," *Indian J. Forensic Med. Toxicol.*, vol. 14, no. 3, pp. 1080–1085, 2020.
- [10] R. Kaur, "Menstrual hygiene, management, and waste disposal: Practices and challenges faced by girls/women of developing countries," *Journal of Environmental and Public Health*. 2018, doi: 10.1155/2018/1730964.
- [11] S. A. Shallo, "Factors affecting menstrual hygiene management practice among school adolescents in Ambo, western Ethiopia, 2018: A cross-sectional mixed-method study," *Risk Manag. Healthc. Policy*, vol. 13, pp. 1579–1587, 2020, doi: 10.2147/RMHP.S267534.
- [12] J. H. Nho, "Relationships among lifestyle, depression, anxiety, and reproductive health in female university students," *Korean J. Women Heal. Nurs.*, vol. 24, no. 1, pp. 80–89, 2018, doi: 10.4069/kjwhn.2018.24.1.80.
- [13] M. Usipuk, "An integrative literature review of menstruation patterns in people with congenital adrenal hyperplasia," *Can. J. Hum. Sex.*, vol. 31, no. 3, pp. 370–385, 2022, doi: 10.3138/cjhs.2021-0043.

- [14] S. F. Witchel, "Polycystic ovary syndrome: Pathophysiology, presentation, and treatment with emphasis on adolescent girls," *Journal of the Endocrine Society*, vol. 3, no. 8, pp. 1545–1573, 2019, doi: 10.1210/js.2019-00078.
- [15] J. Chinyama, "Menstrual hygiene management in rural schools of Zambia: A descriptive study of knowledge, experiences and challenges faced by schoolgirls," *BMC Public Health*, vol. 19, no. 1, 2019, doi: 10.1186/s12889-018-6360-2.
- [16] B. Bungin, *Metode penelitian kuantitatif: Komunikasi, ekonomi, kebijakan publik, dan ilmu sosial lainnya*, 2nd ed. Jakarta: Prenada Media Group, 2005.
- [17] W. Creswell, J, *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*, Third. New Jersey: Pearson Education, Inc., 2008.
- [18] S. Rastogi, "Educational interventions to improve menstrual health: Approaches and challenges," *Int. J. Adolesc. Med. Health*, vol. 33, no. 5, 2021, doi: 10.1515/ijamh-2019-0024.
- [19] A. Adegbayi, "Blood, joy and tears: Menarche narratives of undergraduate females in a selected in Nigeria Private University," *Int. J. Adolesc. Med. Health*, vol. 31, no. 4, 2021, doi: 10.1515/ijamh-2017-0023.
- [20] R. N. Yadav, "Knowledge, attitude, and practice on menstrual hygiene management among school adolescents," *J. Nepal Health Res. Counc.*, vol. 15, no. 3, pp. 212–216, 2018, doi: 10.3126/jnhrc.v15i3.18842.
- [21] D. S. Thakuri, "A harmful religio-cultural practice (Chhaupadi) during menstruation among adolescent girls in Nepal: Prevalence and policies for eradication," *PLoS One*, vol. 16, no. 9, 2021, doi: 10.1371/journal.pone.0256968.
- [22] T. L. Crankshaw, "Menstrual health management and schooling experience amongst female learners in Gauteng, South Africa: A mixed method study," *Reprod. Health*, vol. 17, no. 1, 2020, doi: 10.1186/s12978-020-0896-1.