**ABSTRACT**

**Background:** A premenstrual syndrome is a group of symptoms that occur in the luteal phase of the menstrual cycle that cause disturbances in a person's work and lifestyle.

**Objectives:** This study is to find out and describe all theories and journals of expert opinions related to the relationship of knowledge of premenstrual syndrome with the level of anxiety in adolescents and to find new ideas in research journals conducted in literature studies.

**Methods:** This research design uses a literature review study method. The source of data in this study used secondary data. It was obtained by using a literature study of the relationship between knowledge of premenstrual syndrome by the research topic from 2016-2021 in many as 6 journals on google schooler.

**Results:** Based on the results of this literature review, it was presented narratively to describe the results of research from 6 journals/research results that were relevant to the topic/problem of the relationship between lack of knowledge about
INTRODUCTION

Adolescence is a dynamic phase of development in the life of an individual. Adolescence occurs earlier in adolescent girls than in adolescent boys, and the possibility of this difference is because adolescent girls mature faster psychologically and emotionally. At this time, young women will experience very important changes, namely physical and psychological changes (Susanti et al, 2017). The physical change in question is the process of maturity that occurs in the reproductive organs of adolescent girls which are marked by menstrual events, namely the event of bleeding from the uterus when the egg is not fertilized. Menstruation is a catabolic process that occurs due to the influence of pituitary hormones such as estrogen and progesterone hormones. Generally, menstruation will occur normally every month (Susanti et al, 2017). As many as 75% of adolescents experience menstrual symptoms that can interfere with daily and emotional activities. These symptoms appear even before menstruation comes which is called premenstrual syndrome (Wong, 2011).

A premenstrual syndrome is a group of symptoms that occur in the luteal phase of the menstrual cycle and disrupts a person's work and lifestyle (Agustina & Husna, N. 2018). Some women suffer from depression and anxiety about two days to two weeks before the start of their period, they suffer from various symptoms of depression and anxiety. Most women who experience PMS suffer from stress and other pressures; PMS can last a long time (Anandari, 2018).

Based on the American College of Obstetricians and Gynaecologists (ACOG) states that every month 85% of women in the menstrual cycle experience 1 of the symptoms of premenstrual syndrome starting from mild symptoms to requiring treatment (Saryono & Sejati, 2009). Statistics in the United States also stated that 3-5% of the female population of reproductive age experience moderate to severe PMS (Suparman, 2012). According to Saryono & Sejati, (2009) the incidence of premenstrual syndrome in Indonesia itself is around 70–90% (Monah Fitri, et al (2020)).

Anxiety is a condition characterized by feelings of fear accompanied by somatic signs, namely the occurrence of hyperactivity of the autonomic nervous system. Anxiety is a non-specific symptom that is often found and is often a normal emotion. Teenagers who experience puberty will be more moody, worried, anxious, angry, and crying because of very little incitement. At the beginning of the menstrual cycle, adolescents will be more prone to experiencing PMS. This can be reinforced by the decrease in serotonin during the luteal phase which can stimulate mood disorders. In addition, the level of mood disorders will tend to increase with hormonal changes in adolescents (Susanti, 2017).

Research conducted by Moghadam, et al, (2014) using a systematic review and meta-analysis study on reproductive ages 10-24 years from various countries, results showed that the overall prevalence of PMS was high at 47.8%, and the highest prevalence was in Iran is 98%. According to Maulidah (2016), 75% of adolescents experience symptoms of premenstrual syndrome (Endar Timiyatun, et al (2021)).

Research by Delara (2013) 66.3% of Indonesian adolescents experience mild PMS. Lack of knowledge, experience, and also the lack of information held by women, especially young women about premenstrual syndrome can aggravate the symptoms that arise (Nurul Maulidah, et al (2016)). In Law Number 36 of 2009 concerning Health, it is stated related to Reproductive Health in the sixth part of article 71 paragraph 3 which mandates that reproductive health be carried out through promotive, preventive, curative, and rehabilitative activities (Selpiah, 2017). According to the Ministry of Health (2014), there is also a Youth Care Health Service (PKPR) program in Law No. 36 of 2009 article 137 that the government is obliged to ensure that adolescents receive education, information, and services regarding adolescent health so that they can live healthy and responsible lives. but this PKPR has not been fully implemented in schools as ordered by the Indonesian government so there are still many teenagers who get information about reproductive health from outside media whose accuracy is uncertain (Harpani, 2016).

A person's behavior is influenced by his knowledge (Notojajmodjo, 2007), someone who has good knowledge then his behavior during PMS will be good, as well as someone who has poor knowledge then PMS behavior will be bad. Lack of knowledge about PMS makes young women not treat PMS, and young women are not aware of their
health (Suparman & Ivan, 2011 in Fikri Habibah, et al). Young women must know about health, especially reproductive health, this is not only to maintain health and organ function but is also important information to avoid unwanted things related to reproductive health (Soetjiningsih, 2018).

METHOD

This study uses a literature review narrative research method that describes the relationship between knowledge of premenstrual syndrome and anxiety levels in adolescents. Data sources and data collection techniques in this study used secondary data, namely data obtained by conducting a literature review through exploration of Google scholar and Science Direct sources related to the relationship between premenstrual syndrome knowledge and anxiety levels in adolescents from 2016 to 2021. Data collection This is done by accessing databases (Google scholar and Science Direct) with keywords (keywords) anxiety, premenstrual syndrome, knowledge, and youth. Data analysis is done by integrating research results, connecting related topics, and identifying the central issue or research results. Another relevant thing that the author uses in obtaining journals is the relationship between knowledge of premenstrual syndrome and the level of anxiety in adolescents. The author took all research designs used in identifying the relationship between knowledge of premenstrual syndrome and anxiety levels in adolescents.

The article search process is described in the form of a PRISMA flow diagram (Figure 1). The collection of research data using predetermined keywords resulted in 8 articles in Science Direct and 42 articles on Google Scholar so the total articles to be screened were 50 articles. Furthermore, 13 duplicate articles were obtained in both journal databases, bringing the total articles to 37 articles. Of the 37 articles, articles were filtered by looking at the titles and abstracts, and the results were that 31 articles were excluded because they did not meet the inclusion criteria, namely not discussing access to maternal and child health services so that 6 articles were included in the inclusion criteria and were then used as research data.

RESULT AND DISCUSSION

Through the integration of several research results, linking research results, and identifying important issues that are relevant to the topic or research problem, the results of the analysis of the review data are displayed in a table. After being selected through various journals, a sample of 6 journals that are relevant to the research topic and formally accredited are obtained. Search results through Google Scholar and Science Direct obtained as many as 50 journal titles with the same title as researchers about the relationship between knowledge of premenstrual syndrome and anxiety levels in adolescents, but researchers only took journals based on inclusion criteria, namely from 2016-2021, full text and can be downloaded without paying. The journal titles include, 2 journals in 2016 (Nurul Maulidah Journal and Fikri Habibah Journal); 1 journal in 2019 (Journal of Hadah Liriski and Esitra Herfanda); 1 journal in 2020 (Journal of Monah Fitri Ani); 2 journals in 2021 (Endar Timiyatun Journal and Sri Wulan Journal).

The results of this literature study are presented narratively to describe the results of research from 6 journals/research results that are
The relationship characteristics and...rele
vant to the topic/problem of the relationship between premenstrual syndrome knowledge and anxiety levels in adolescents. The reviewed journals have almost the same research objectives, namely to determine the relationship between knowledge of premenstrual syndrome and anxiety levels. Of the 6 journals that the researchers reviewed, all of them used cross-sectional research methods or designs. The number of samples in the review table includes: the sample used by Fikri Habibah (2016) with 63 respondents, Nurul Maulidah (2016) is 80 respondents, Hadah Liriski, et al (2019) is 72 respondents, Monah Firti Ani (2020) is 63 respondents, Endar Timiyatun (2021) totaled 30 respondents, and Sri Wulan, et al (2021) amounted to 67 respondents.

A premenstrual syndrome is a group of symptoms that occur in the luteal phase of the menstrual cycle and disrupts a person's work and lifestyle (Agustina & Husna, N. 2018). Based on the American College of Obstetricians and Gynaecologists (ACOG) states that every month 85% of women in the menstrual cycle experience 1 of the symptoms of premenstrual syndrome starting from mild symptoms to requiring treatment (Saryono & Sejati, 2009). This time, young women will experience very important changes, namely physical and psychological changes (Susanti et al, 2017). The physical change in question is the process of maturity that occurs in the reproductive organs of adolescent girls which are marked by menstrual events, namely the event of bleeding from the uterus when the egg is not fertilized.

Anxiety occurs because of the factors that influence it, one of which is low knowledge about premenstrual syndrome, hormonal factors in the female body, namely the imbalance between the hormone estrogen and progesterone, and experience, knowledge is also influenced by several factors, one of which is the source of information and age. Anxiety that is not addressed immediately can cause various anxiety responses, including anxiety, cold sweat, fear, and various health problems that can interfere with daily activities (Yani, 2011). Lack of knowledge, experience, and also the lack of information held by women, especially by young women about premenstrual syndrome can aggravate the symptoms that arise, sometimes young women try to overcome the symptoms of premenstrual syndrome and are trial and error without the sufficient and correct knowledge. (Maulidah, 2016). Lack of knowledge about STDs makes young women not take care of STDs, and young women are not aware of their health.

Based on the 6 research journals above, shows that there is a relationship between knowledge of premenstrual syndrome (PMS) with anxiety in adolescent girls. The results of research by Fikri Habibah (2016), Nurul Maulidah (2016), Hadah Liriski, et al (2019), Monah Firti Ani (2020), Endar Timiyatun (2021), and Sri Wulan, et al (2021) show that there is a relationship between knowledge of premenstrual syndrome (PMS) with anxiety in adolescent girls, where the health condition during menstruation is influenced by the level of knowledge if someone has a dangerous action for himself. The existence of knowledge of something will cause people to have positive attitudes and behavior towards it.

The research results used as data in this literature study are described in table 1. Based on the results of research conducted in the form of a review of literature studies from 6 journals related to the relationship between knowledge of premenstrual syndrome and the level of anxiety in adolescents, the researchers assume that the research results and the theory of the relationship between knowledge of premenstrual syndrome have a significant relationship between knowledge and the relationship between knowledge of premenstrual syndrome and Anxiety Levels in Adolescents. According to the researcher, the relationship between knowledge of Premenstrual Syndrome is important to reduce mild and severe symptoms before or during menstruation, which occurs in almost all young women, and prevent more severe events. To achieve good procedure results, adolescents need to take good care so that they can reduce the symptoms of premenstrual syndrome and feel better with better knowledge as well. The results of the research above all the journals that the researchers reviewed used a cross-sectional design research method. So, the author hopes that further research should use other methods or qualitative methods.
Table 1. Literature Review

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Method</th>
<th>Sampling</th>
<th>Research Procedure</th>
<th>Result</th>
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<tr>
<td>Endar Timiyatun, I Made Moh. Yanuar Saifudin*, I Ina Dzakia Rahmayanti, Eka Oktavianoto</td>
<td>Hubungan Pengetahuan Premenstrual Syndrome Dengan Tingkat Kecemasan Pada Remaja Putri di SD Negeri Kauman dan SD Pungkur Pleret Bantul Yogyakarta</td>
<td>Cross Sectional</td>
<td>30 Respondents at SD Negeri Kauman and SD Pungkur Pleret</td>
<td>The measuring instrument in this study used a questionnaire, the questionnaire used to measure anxiety was the Hamilton Rating Scale for Anxiety (HRSA). The data analysis used is univariate and bivariate correlation analysis, using the Kendall's Tau test.</td>
<td>There is a significant relationship between knowledge of premenstrual syndrome and the level of anxiety for young women at the Kauman Elementary School and the Pungkur Pleret State Elementary School in Yogyakarta with a P value of 0.000 (P &lt;0.05).</td>
</tr>
<tr>
<td>Monah Fitri Ani, Yuni Purwati</td>
<td>Hubungan Tingkat Kecemasan Dengan Kejadian Premenstrual Syndrome (Pms) Pada Mahasiswa Semester Vi Prodi Keperawatan Universitas 'Aisyiyah Yogyakarta Tahun 2020</td>
<td>Cross Sectional</td>
<td>63 respondens</td>
<td>The statistical analysis used is non-parametric statistics with the Kendall Tau (T) test because the independent variable and the dependent variable both use the ordinal data scale (Sugiyono, 2014). Data Analysis Performed with SPSS Program. If the results of the statistical test analysis are obtained at a significant level</td>
<td>There is a relationship between the level of anxiety and the incidence of premenstrual syndrome (PMS) in the sixth semester students of the Nursing Study Program at the University of Aisyiyah Yogyakarta.</td>
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<tr>
<td>Nurul Maulidah, Nur Azizah Indriastuti</td>
<td>Hubungan Pengetahuan Tentang Premenstrual Syndrome Dengan Kecemasan Remaja Putri Saat Menghadapi Premenstrual Syndrome Di SMP Negeri 1 Kasihan Bantul Yogyakarta</td>
<td>Cross Sectional</td>
<td>80 respondents</td>
<td>This research was conducted in junior high school Country 1 Poor Bantul. Population in this study are teenagers daughter at SMP Negeri 1 Poor totaling 273 young women, with a sample of 80 respondents. Technique sampling used is Simple Random Sampling</td>
<td>The majority of respondents have less knowledge about premenstrual syndrome, namely 36 respondents (45%) and experience severe anxiety during premenstrual syndrome, namely 25 respondents (31.2%). There is a correlation between knowledge about premenstrual syndrome and anxiety in young women when facing premenstrual syndrome at SMP Negeri 1 Kasihan with a significance value of P = 0.047. The results showed a significant relationship between premenstrual syndrome and anxiety in class X students of SMA Muhammadiyah 3 Yogyakarta with a positive relationship and moderate relationship strength (P = 0.00; R = 0.452). It is hoped that the school will</td>
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<tr>
<td>Hadah Liriski Parahats, Esitra Herfanda</td>
<td>Hubungan Premenstruasi Sindrom Dengan Tingkat Kecemasan Pada Siswi Kelas X SMA Muhammadiyah 3 Yogyakarta</td>
<td>Cross Sectional</td>
<td>From the inclusion and exclusion criteria obtained 72 students as respondents</td>
<td>Conducting Data Collection Using Spaf Questionnaire and HARS. Data were analyzed univariately and bivariately using the Kendall's Tau test.</td>
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<table>
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<tr>
<th>Author</th>
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| Sri Wulan, Basyariah Lubis, Novita Br Ginting, Muthe, Iskandar Markus, Rahmad Grusinga | Hubungan Pengetahuan Remaja Putri Tentang Kesehatan Reproduksi Dengan Kecemasan Dalam Menghadapi Premenstruasi Syndrome | Cross Sectional     | This Research Was Conducted In Junior High School For Young Female Students A total of 67 people were taken randomly, namely simple random sampling and determined based on inclusion and exclusion criteria. | The instrument in this study used a questionnaire consisting of 2 parts, namely knowledge about reproductive health and anxiety in dealing with premenstrual syndrome. Data Analysis Using Frequency Distribution Table and Chi Square Statistical Test with 95% Confidence Level ($\alpha = 0.05$) (Sugiyono, 2016). The results showed that there was a relationship between knowledge about reproductive health and anxiety in dealing with premenstrual syndrome with a $P$ Value of 0.000. It is recommended that health services be able to hold counseling about premenstrual syndrome to increase knowledge and reduce adolescent anxiety levels. |}
| Fikkri Habibah, Nur Aziah Indiastuti | Hubungan Pengetahuan Tentang Pms (Premenstrual Syndrome) Dengan Perilaku Koping Dalam Mengatasi Kecemasan Saat Pms Di Smpn 1 Kasihan Bantul Yogyakarta | Cross Sectional     | This research was conducted at SMPN 1 Kasihan Bantul using the Simple Random Sampling technique. The sample used was 63 students of SMPN 1 pity Bantul. | Data were collected using 7 knowledge questionnaires about PMS by Natalia (2013). The questionnaire on coping behavior in dealing with anxiety during PMS was made by the researcher himself. | The results showed that the majority of students' knowledge about PMS was in the good category 52.4%, coping behavior in overcoming anxiety during PMS was in the sufficient category 57.1%. The results of the bivariate test prove that there is a relationship between PMS knowledge and coping behavior in overcoming anxiety during PMS with $p = 0.000$. |
CONCLUSION

Some journals (4 journals) show that there is a significant relationship between knowledge, anxiety, and premenstrual syndrome (PMS) in adolescent girls. Some other journals show that there is no relationship between knowledge and anxiety in the treatment of premenstrual syndrome in adolescent girls.

Therefore, adolescents need to increase their knowledge by seeking information about premenstrual syndrome and doing good treatment so that they can reduce the symptoms of premenstrual syndrome and feel better.

ACKNOWLEDGEMENT

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REFERENCE


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