

How Does Primary Dysmenorrhea Impact the Quality of Life of Young Women Ages (18-35) in a Selected Community in St. James, Jamaica?

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ABSTRACT

Problem Statement: Primary Dysmenorrhea is one of the most common gynecological conditions that affects woman of reproductive age (Iacovides, Avidon, Bentley & Baker, 2013). Globally, Primary Dysmenorrhea affects 15% to 94% of adolescent girls (Perrin, 2016). The prevalence of the condition is not known in Jamaica.

Significance of the study: The study contributes to the body of knowledge for midwives, nurses and members of the obstetrical team. Women who are affected by the condition can benefit from the different types of management used to alleviate pain and discomfort. Findings can be used to reduce lost hours due to absences from work and school.

Methodology: A quantitative approach utilizing a descriptive cross-sectional design was used. The Population consists of women age 18-35 years. The sample size using the Raosoft sample size calculator with a confidence level of 95% and 5% margin of error, was 132 from 200 women.

Key Findings: The prevalence of Primary Dysmenorrhea is (77%). Majority (65%) reported that they self-medicated to relieve menstrual pain. Activities mostly affected are performance of chores (56%), and absence from work and school (30%). The most significant effect Primary Dysmenorrhea has on mood was irritability (74%).

Conclusion: Females affected by Primary Dysmenorrhea experienced significant changes in daily activities. Further research is necessary in order to seek new ways to help young women to become knowledgeable about primary dysmenorrhea so that they can be much better prepared to deal with the symptoms and to have much better self-management strategies in place.

Keywords: Primary Dysmenorrhea, Menstrual Pain, Dysmenorrhea and Quality of Life

Introduction

Background

Primary dysmenorrhea is defined as severe cramping pain in the lower abdomen of the uterus which occurs at the onset of menstruation in the absence of any identifiable pelvic disease [1]. It was further explained that dysmenorrhea negatively impacted the health-related quality of life of women. Primary dysmenorrhea remains one of the most common gynecological symptoms among women within the reproductive age range,

with a worldwide prevalence ranging from 45% to 95% [1]. The prevalence of primary dysmenorrhea is underestimated and difficult to determine as few women seek medical treatment while others consider the pain to be a normal part of the menstrual cycle [2].

Primary dysmenorrhea has different levels of negative impacts on the physical, psychological and social functions of women, leading to short-term absences from study or work. Additionally, in a study by Sugumar et al on Primary Dysmenorrhea, 42% of affected women self-medicated while 35% took inappropriate medicines [3]. The literature shows that dysmenorrhea has

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significant economic consequences; causing the loss of 145 million working hours annually in the United States. Similarly, the annual economic losses in Japan due to primary dysmenorrhea is estimated to be \$4.3 billion dollars [4].

Despite the high prevalence of Primary dysmenorrhea among females worldwide, it is often poorly treated and even disregarded by health professionals, pain researchers and the women themselves [5]. Furthermore, Avidon stated that the significantly high prevalence of dysmenorrhea among females proved that this condition is a public health problem that requires a public health approach to its management [5].

Problem Statement

Primary Dysmenorrhea is considered to be one of the most common gynecological conditions that affects woman of reproductive age irrespective of nationality and age [6]. Globally, Primary Dysmenorrhea affects 15% to 94% of adolescent girls [7]. Perrin posited that primary dysmenorrhea substantially compromises the overall quality of life similar to a chronic illness [7]. Primary Dysmenorrhea is believed to be on the rise. If appropriate public health interventions are not implemented by governing authorities, it will continue to negatively impact the quality of life of women in society and affect the finances of the workplace.

Databases used included PubMed, Cochrane library, and Google Scholar in combination with the word, 'primary dysmenorrhea', various search terms were used to obtain journal articles such as, impact, females, daily activities, self-management strategies, knowledge and attitudes and the Caribbean. No evidence was found regarding to the impact of Primary Dysmenorrhea on the quality of life among females in Jamaica or the Caribbean, the knowledge and attitude female has towards primary dysmenorrhea, the prevalence of primary dysmenorrhea in Jamaica and the Caribbean, daily activities affected by primary dysmenorrhea, or various self-management strategies used by affected females. It is hoped that the findings from this study will prompt policy makers to design and implement effective measures to manage Primary Dysmenorrhea.

Purpose of Study

This research investigated how Primary Dysmenorrhea affects the quality of life of females in a selected community in St. James, Jamaica.

Research Question

What are the effects of primary dysmenorrhea on the quality of life among females ages (18-30 yrs.) in a selected community in St James?

Research Sub-Questions

1. What is the prevalence of Primary Dysmenorrhea in Catherine Hall, St. James?
2. What day-to-day activities does primary dysmenorrhea affects?
3. What are some of the self-management strategies females used to lessen the effects of primary dysmenorrhea?
4. What are the knowledge and attitudes of women towards Primary Dysmenorrhea?

Significance of the Study

H₀: There is no association between Primary Dysmenorrhea and absenteeism from school or work.

H₁: There is an association between Primary Dysmenorrhea and absenteeism from school or work.

Pearson Chi-Square value is 2.621, degrees of freedom (df) 2 and p-value is 0.270. showed an association between Primary Dysmenorrhea and absenteeism from school or work.

This study has added to the body of knowledge for midwives, nurses and other members of the obstetric team. The findings of this research are of value and importance to officials of the Ministry of Health, health care professionals and females in the general public. By exploring the different ways primary dysmenorrhea affects females and the different self-management strategies they use to alleviate pain and discomfort of the condition, other women in society who are affected by the condition can also benefit from the different types of management used to alleviate pain and discomfort of primary dysmenorrhea. This research will provide an avenue for future research on a national scale on this area of study.

Methodology

Research Design

A quantitative approach utilizing a descriptive cross-sectional design was used to conduct this study. Quantitative research is a type of research which explains phenomena by collecting numerical data [8]. Furthermore, it can be used to establish generalizable facts about a topic[8]. The quantitative approach in this research seek to investigate how Primary Dysmenorrhea affects the quality of life of females ages (18-30 yrs.) in a selected community in St. James.

Population and Sample

The targeted population for the study comprises women of the reproductive age 18-30 years in the community of Catherine Hall in St. James. The total estimated population of females in this area is 100. Rescoe explained that sample sizes larger than 30 and less than 500 are appropriate for most research. The sample size was obtained using the Raosoft sample size calculator with a confidence level of 95% and 5% margin of error resulting in the total sample size of 80 from 100 women between the ages of 18 and 30 years.

Inclusion Criteria

This research included only women within the age group of 18-30 years who reside in the community of Catherine Hall, St. James, Jamaica and women who did not have a hysterectomy done.

Exclusion Criteria

Women outside of the age group 18-30 years who do not reside in the community of Catherine Hall, St. James Jamaica were excluded, also, women within the age group who are mentally challenged were excluded.

Sample Techniques

The sampling technique used for this research was purposive sampling. This technique is used by researchers when they rely on their own judgment when choosing members of a population to participate in the study [9]. Purposive sampling is

a non-probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher [8]. Purposive sampling was chosen as it is one of the most time-effective sampling methods available and may be the only appropriate method available as there is limited number of primary data sources that can contribute to this study.

Research Instrument

The data collection instrument was created by the researchers and was in the form of a structured questionnaire which consisted of thirty items relating to how Primary Dysmenorrhea impact the quality of life of young women ages (18-30yrs.) in a selected community in St. James, Jamaica. The questionnaire consisted of five sections: Section 1. consisted of seven (7) questions that requires the participants to provide biographic data. Section 2 consisted of (6) questions that assessed the knowledge and attitudes of women towards Primary Dysmenorrhea. Section 3 has six (6) questions and estimate the prevalence of Primary Dysmenorrhea in St. James. Section 4 consisted of (5) questions that assessed self-management Strategies used by affected females. Finally, section five consisted of six (6) questions that investigates how primary dysmenorrhea affects day-to-day activities.

Validity and Reliability

The data collection instrument was pre-tested on five (5) persons who met the inclusion criteria. Reliability level was high as pre-test results mirrored that of the final version. The questions were free of any jargon and were interpreted in the same manner by participants. The sample size is small and cannot be generalized to the population of Jamaica. However, the size is representative of the community in which the study was conducted.

Data Collection Procedures

Data was collected over a two-week period among females ages 18-30 years' old who resides in the community of Catherine Hall, St. James. Due to the Covid-19 Pandemic and the guidelines set out by the Ministry of Health in Jamaica and the World Health Organization, questionnaires were sent to participants using an online software medium, Survey Monkey. This online software medium generated a link containing the questionnaires which were sent to the participant's emails or WhatsApp chat. After clicking on the link provided and selecting the yes response to the consent, participants were directed to the survey questions for completion of each items provided. Similarly, a no response to the consent request in the introductory section will not direct participants to the questionnaire, instead, an exit button was made available for the participants to exist from the study. Completed questionnaires were kept in a locked online database, accessible only to the researchers and the research supervisor.

Data Analysis

The responses were coded by the researcher and entered into the SPSS (Statistical Package for the Social Scientists) Version 22 software tool for statistical analysis. The tool was used to assist with the analysis of quantitative data as it provides a broad coverage of formulas and statistical routines.

Ethical Consideration

Approval was sought and received from the University of Technology, Jamaica, College of Health Sciences Ethics

Committee. All ethical principles were applied at each stage of the research process

Results

A total of 80 females completed the questionnaire. The mean age of the females was 27.16 ± 3.01 years. Of the sample, approximately (35%) of the participants were in the age group 18 -25 years, (28.75%) were in the age group 25-30 years and approximately (36.25%) were in the 30 -35 age group.

Thirty-five percent (35%) of the participants experienced their first menstrual period in the age group 10-13 years and another (35%) in the age group 14- 17 years. When questioned about knowledge of Primary Dysmenorrhea, 85% of the participants knew what Primary Dysmenorrhea was while (15%) did not know. In response to the question on whether personal hygiene will improve discomfort of Primary Dysmenorrhea, (47%) thought activities such as having a shower improves the discomfort but 33% stated no, they don't think personal hygiene improves the discomfort. On the question of Sources of help for Primary Dysmenorrhea, respondents reported that 13.75 % received help from members of their family, another 23.75% got help from healthcare providers; 7.5% relied on mass media, 3.75% receive help from friends and an alarming 51.25% did not seek help.

For the Chi-square tests at the assumed 5% level of significance, the hypotheses were:

H₀: There is no association between Primary Dysmenorrhea and absenteeism from school or work.

H_a: There is an association between Primary Dysmenorrhea and absenteeism from school or work.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.621 ^a	2	.270
Likelihood Ratio	3.076	2	.215
Linear-by-Linear Association	2.206	1	.137
N of Valid Cases	25		

Pearson Chi-Square value 2.621, the degrees of freedom (df) 2, p-value = 0.270. indicating that there was not enough evidence to conclude no association between Primary Dysmenorrhea and absenteeism from school or work.

Relating to activities affected by Primary Dysmenorrhea, approximately 56% of the participants indicated that menstrual pain affected their ability to perform chores; approximately 30% stated that it affected work, 9% participation and attendance in school and 5% participation in sports. The most significant effect Primary Dysmenorrhea has on mood was irritability, 74%. Approximately 11.25% were angry during their menstrual period, 8% were depressed, suffered from anxiety and 4% were sad. There was no statistically significant difference among the groups of women regarding those whose sleep pattern was affected by Primary Dysmenorrhea and those whose sleep pattern was not affected by Primary Dysmenorrhea. This is consistent with the literature which showed that low sleep or lack of sleep can lead to irritability. Ninety-two percent (92%) of the participants

indicated that they missed school or work for three days due to primary Dysmenorrhea.

Approximately (85%) of the participants knew what Primary Dysmenorrhea was while (15%) did not know. Those who received help from members of their family for Primary Dysmenorrhea were (13.75%) approximately (23.75%) got help from healthcare providers; (7.5%) relied on Mass media; approximately (3.75%) got help from friends and an alarming (51.25%) did not seek help. It can be argued that the (51.25%) that did not seek help either suffered in silence or too embarrassed to seek help, a position that could in some way affect the quality of life for these participants in a negative way. Another factor could relate to cultural practices as posited by Parveen who found that cultural practices is a barrier to seeking relief for dysmenorrhea [10].

A high prevalence of dysmenorrhea among the females in this study (77%) is consistent with that found in the literature on similar studies. The global prevalence of dysmenorrhea ranges between 50% and 90%; this difference is possibly due to the fact that dysmenorrhea varies according to the age of the women included in the study. Furthermore, prevalence reports may be influenced by self-report bias. Approximately (65%) of the participants reportedly self-medicated to relieve their menstrual pain. Approximately (18%) resorted to tea/herbs for relief; approximately (9%) used prescription drugs and about (8%) used heating pad. A number of studies suggest that self-medication of this patient population is high. In contrast, in a study by Mukattash et al, on a population of adolescent girls in Hong Kong, only (18%) of those surveyed affirmed that they self-medicated [11]. This low result was attributed to the fact that, in China, even self-medication requires at least a prescription or medical advice. The findings in this study are consistent with the finding of Chen who found that the symptoms of dysmenorrhea were cramps, backache, facial blemishes, irritability and compromised physical activities and that some women resorted to traditional methods of treatment instead of seeking medical attention [12].

Conclusion

While the results from the chi-square tests and other analyses did not actually provide conclusive evidence regarding the extent to which Primary Dysmenorrhea impacts the quality of life of young women in a selected community in St. James, the researchers were provided with enough argument to safely conclude that some females affected by Primary Dysmenorrhea have experienced significant changes in their daily activities. There were other females who face serious challenges as they relate to self-management strategies. Dysmenorrhoea presents a major problem among young women by negatively impacting the quality of life. Further research is necessary in order to seek new ways to help young women to become knowledgeable about the condition, so that they can be better prepared to deal with the symptoms and to have put self-management strategies in place.

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