Impact of Primary Dysmenorrhea on quality of life among female University Students

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Background: Primary Dysmenorrhea is the pain and discomfort occurring every month during menstrual periods. Bleeding along with severe pain in low back and abdominal region plus fatigue, breast soreness, lack of energy, weakness, vomiting and even fainting is common. This causes constant discomfort, reduced physical activity, absenteeism from class and work and cause irritability and mood upsets. These effects are crucial among females for whom studies, social participation, and daily functioning are important components of quality of life. It is utmost important to investigate the impact of primary dysmenorrhea on quality of life in females to analyze how this pain affects their daily functioning and well-being.

Method: A cross sectional study design was conducted. Convenience sampling was used to recruit participants. A self-administered questionnaire that consists of four sections was distributed to participants. Google form was used and the participants filled a validated questionnaire with four subsections on menstrual pain and quality of life details. SPSS version 26.0 was used to analyze the collected data.

Result: 315 female responses were obtained. Most of the participants reported higher pain intensity. A statistically significant association was observed between the severity of dysmenorrhea and quality of life ($p < 0.05$). Menstrual pain was associated with difficulties in daily activities, low grades in exam and difficulty in sports participation.

Conclusion: Primary dysmenorrhea has a negative impact on the quality of life of females. It affects their physical functioning, studies daily activities with tiredness and fatigue. Greater severity of menstrual pain is associated with greater disruption to daily life and reduced quality of life. Appropriate management, and health education regarding primary dysmenorrhea are important to reduce its impact and improve the overall well-being and quality of life.

Key words: Primary Dysmenorrhea, Quality of life

Introduction

Primary Dysmenorrhea or period pain is the typical menstrual cramp that females experience during menses every month in the absence of any substantial medical reason (Ferries-Rowe 2020) Females experience this condition as a normal part of their menstrual cycle this may significantly impact the daily lives and wellbeing. (McKenna & Fogleman, 2021).

Menstrual pain may reduce physical activity, disturb sleep, impair concentration, and contribute to absenteeism from school, college, or work. In addition, recurrent pain and associated symptoms may negatively influence emotional well-being, leading to irritability, anxiety, stress, and reduced overall satisfaction with life. Armour et al., 2019; McKenna & Fogleman, 2021). Quality of life refers to an

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individual's overall perception of their physical health, psychological state, level of independence, social relationships, and interaction with the environment. (Wang 2022). In females, PD may significantly affect quality of life, feel weak and tired daily functioning and emotional well-being is affected.

This study aims to describe and some factors related to PD among females at Universiti Tunku Abul Rahman and investigate its impact on quality of life. The aim is to develop treatment and prevention strategies for the females suffering from dysmenorrhea.

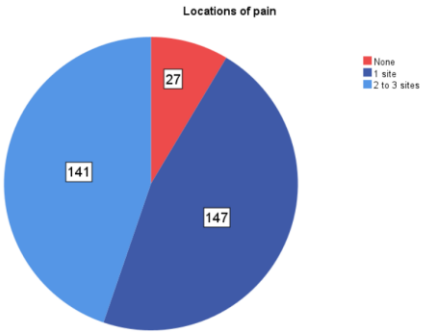
Methods The study is Cross section study design done for duration of 8 weeks at Universiti Tunku Abdul Rahman. The study population is female university students from age 18-28 years. Ethical permission was obtained from the Scientific and Ethical Review Committee at Universiti Tunku Abdul Rahman and informed consent was obtained from all the participants.

A total of 315 female participants were recruited through social media and campus announcements. Convenience sampling was done. Inclusion criteria used was unmarried Female, University student, 18-28-year old with history of menstrual pain for past three months. Females with secondary dysmenorrhea and gynecological issue excluded from the study.

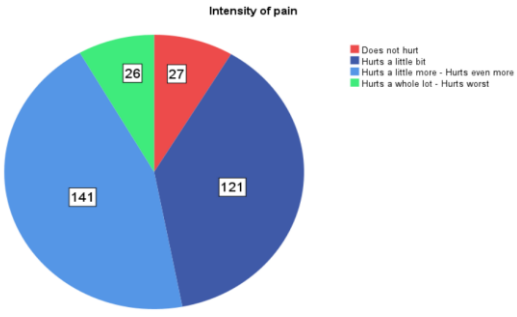
A self-administered questionnaire with sub- sections on the sociodemographic detail, menstrual characteristics and quality of life. Domains from menstrual symptom questionnaire were also included to find symptom severity. The participants filled all in the google form and submitted. The response was recorded by the researcher the data collection and coding were done by using Microsoft Excel. The Statistical Package for Social Sciences (SPSS) version 26.0 was used to analyze the data. Descriptive data was used to provide data with frequencies, percentages, means and standard deviations. Chi-Square Test was used to determine any association or relationship between the data.

Results

Figure 1 Pain location and intensity



147 participants who responded with pain at 1 site during their menstrual period- 46.7%. 141 participants – pain at 2 t- 3 sites. No participants with four sites pain



26 participants described their pain as “hurts a whole lot – hurts worst”, making up the final 8.3% of the total participant pool.

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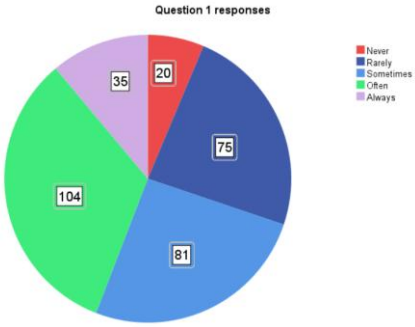
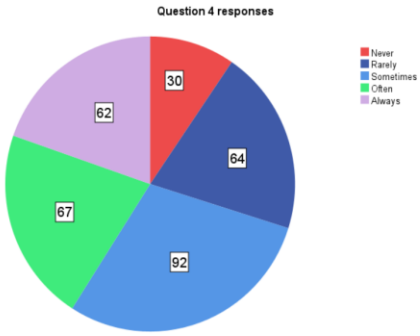
Irritability and agitation during menstruation



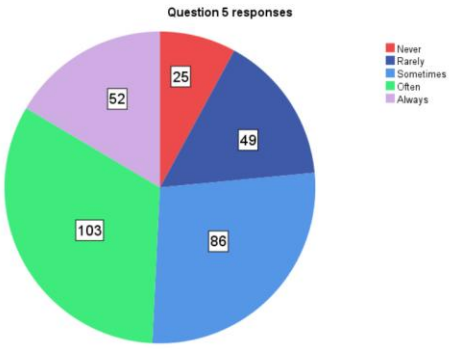
35 participants responded with “Always”, making up the final 9.8% of the participant pool.

Pain and discomfort in body



62 participants responded with “Always”, making up the final 17.4% of the participant count.

Weak and tired during menstruation



Weak and tired during menstruation

52 participants responded with “Always”, making up the final 14.6% of the participant pool.

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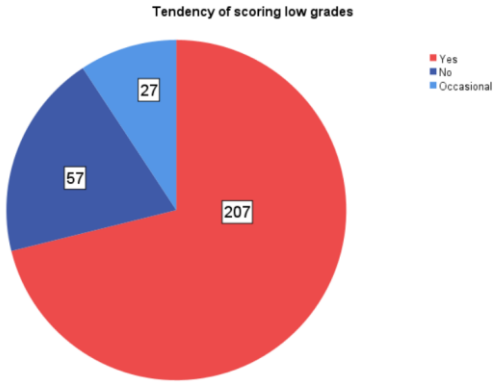
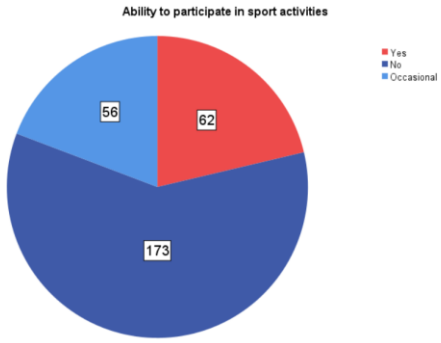


Getting low grades during exams

Total of 207 participants responded to this question with "Yes", making up 71.1% of the total participant pool.

Ability to participate in sports



62 participants (21.3%) -Yes, 173 participants (59.5%) -N, and 56 participants (19.2%)-Occasionally

Discussion

Primary dysmenorrhea has crucial impact on life of females across all ages. Pain and associated symptoms decrease concentration in studies and may lead to low grades in exams. Repeated disruption of these activities may affect academic performance and contribute to stress and frustration. Even working females exibit decreased productivity and difficulty in continuing normal work responsibilities due to pain. Pain intensity can vary from moderate to severe along with other symptoms. severe dysmenorrheic females avoid social events, sports, travel, and other recreational activities due to pain and symptom worsening

The impact may be particularly significant among adolescents and young adults, for whom participation in educational, social, and recreational activities is an important part of personal development.

Overall, primary dysmenorrhea should not be considered only a menstrual discomfort. Its effects can extend across several dimensions of quality of life, including physical health, psychological well-being, academic or occupational performance, and social participation. Recognizing the relationship between dysmenorrhea and quality of life can help healthcare professionals provide timely assessment and appropriate management. Early identification and effective treatment may reduce pain, improve daily functioning, and enhance the overall well-being of females.

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Conclusion

Primary Dysmenorrhea impacts the daily routine life of females and they difficulty in studies and routine daily tasks during menses. Early and effective treatment startegies are required to reduce this impact and help women to cope up with the pain and distress and have an improved life quality.

References:

1. Armour, M., Parry, K., Manohar, N., Holmes, K., Ferfolja, T., Curry, C., MacMillan, F., & Smith, C. A. (2019). The Prevalence and Academic Impact of Dysmenorrhea in 21,573 Young Women: A Systematic Review and Meta-Analysis. *Journal of Women's Health*, *28*(8), 1161–1171. https://doi.org/10.1089/jwh.2018.7615

2. Bakhsh, H., Algenaimi, E., Aldhuwayhi, R., & AboWadaan, M. (2022). Prevalence of dysmenorrhea among reproductive age group in Saudi Women. *BMC Women's Health*, *22*(1). https://doi.org/10.1186/s12905-022-01654-9

Berek, J. S. (2019). *Berek & Novak's Gynecology*. Lippincott Williams & Wilkins

3. Chesney, M. A., & Tasto, D. L. (1975). The development of the menstrual symptom questionnaire. *Behaviour Research and Therapy*, *13*(4), 237–244. https://doi.org/10.1016/0005-7967(75)90028-5

4. Dehnavi, Z., Jafarnejad, F., & Kamali, Z. (2018). The Effect of aerobic exercise on primary dysmenorrhea: A clinical trial study. *Journal of Education and Health Promotion*, *7*(1), 3. https://doi.org/10.4103/jehp.jehp_79_17

5. Ferries-Rowe, E., Corey, E., & Archer, J. S. (2020). Primary Dysmenorrhea. *Obstetrics & Gynecology*, *136*(5), 1047–1058. https://doi.org/10.1097/aog.0000000000004096

6. Itani, R., Soubra, L., Karout, S., Rahme, D., Karout, L., & Khojah, H. M. J. (2022). Primary Dysmenorrhea: Pathophysiology, Diagnosis, and Treatment Updates. *Korean Journal of Family Medicine*, *43*(2), 101–108. https://doi.org/10.4082/kjfm.21.0103

7. Kho, K. A., & Shields, J. K. (2020). Diagnosis and Management of Primary Dysmenorrhea. *JAMA*, *323*(3), 268. https://doi.org/10.1001/jama.2019.16921

8. Ortiz, M. I., Espinoza-Ramírez, A. L., Cariño-Cortés, R., & Moya-Escalera, A. (2022). Impacto de la dismenorrea primaria en el rendimiento académico de estudiantes universitarios. *Enfermería Clínica (English Edition)*, *32*(5), 351–357. https://doi.org/10.1016/j.enfcle.2021.12.007

9. Pakpour, A. H., Kazemi, F., Alimoradi, Z., & Griffiths, M. D. (2020). Depression, anxiety, stress, and dysmenorrhea: a protocol for a systematic review. *Systematic Reviews*, *9*(1). https://doi.org/10.1186/s13643-020-01319-4

10. Rafique, N., & Al-Sheikh, M. (2018). Prevalence of menstrual problems and their association with psychological stress in young female students studying health sciences. *Saudi Medical Journal*, *39*(1), 67–73. https://doi.org/10.15537/smj.2018.1.21438

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