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Prevalence Of Pelvic Floor Dysfuction And Its Impact On Quality Of Life Among Postpartum Women

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ABSTRACT

Diabetes mellitus, particularly type 2 diabetes, is a growing global health issue, often exacerbated by insulin resistance, metabolic disturbances, and inflammatory responses.

Background: Pelvic Floor Dysfunction (PFD) is a relatively common health complication after giving birth, but is usually neglected. It largely impacts the woman's physical, mental, and social aspects of life. It includes conditions like urinary incontinence, pelvic organ prolapse, fecal incontinence, which results in reduced mobility, poor emotional state, and social isolation. Major risk factors include pregnancy and childbirth, especially vaginal deliveries, prolonged labor, and high birth weight babies. Though common, many women do not seek treatment due to social stigma and ignorance. Knowing how common PFD is, as well as its consequences on quality of life (QoL), is important in order to provide adequate PFD screening, preventive approaches, and optimize the treatment offered for better recovery and health outcome after childbirth. Pelvic floor dysfunction (PFD) is a medical condition that significantly impacts the quality of life among affected women. Identifying those at higher risk is crucial for prevention strategies, yet its complex origins remain poorly understood.

Objective This study aimed to examine the prevalence of pelvic floor dysfunction among postpartum women and its impact on their quality of life based on age.

Methods At Mahatma Gandhi Medical College and Research Institute (MGMCRI), Puducherry, a cross-sectional study was conducted among 100 postpartum women. A structured questionnaire along with King's Health Questionnaire (KHQ) was employed to assess the effect of PFD on activities of daily living, emotional, and physical health. Computerized Descriptive statistical analysis was done in MS Excel.

Result: The prevalence of PFD among postpartum women was 43%. The age group that was most affected was 31-35 years (34.9%) followed by 26-30 years (27.9%). Of the participants, 95% had stress urinary incontinence, 88% had nocturia, and 79% reported some restriction of normal social activities. Furthermore, 90 % of the women suffered from depression and anxiety due to PFD, while the rest, 98%, reported having sleep problems and feeling tired, which adversely affected their quality of life.

Conclusion Study is highly prevalent among postpartum women and significantly **reduces their quality of life,** particularly in older age groups (31+ years). **Early screening and interventions** such as **pelvic floor muscle training (PFMT)** are essential to improve postpartum women's health and well-being. Reducing the burden of PFD and addressing postpartum women's health and quality of life requires awareness campaigns and other medical measures.

Keywords: *Pelvic Floor Dysfunction (PFD), postpartum women, Quality of Life (QoL), Pelvic floor training (PFT), King's Health Questionnaire (KHQ), Health related quality of life (HRQOL)*

1. INTRODUCTION

Pelvic floor dysfunction (PFD) is a collection of disorders that involve the muscles, ligaments, and connective tissues that support the visceral pelvic organs, such as the bladder, uterus, and rectum. Some of the symptoms include urinary and fecal incontinence, pelvic organ prolapses, and disorders of sexual functions[1]. The frequency of PFD is exceptionally high among postpartum women because of PFD pregnancy and childbirth predisposition. Labor, especially when delivered vaginally, places tremendous strain on the pelvic floor,[2] which can result in functional disabilities that are temporary or permanent. This is why PFD has become an important issue for women's health in the postnatal phase, affecting a significant number of new mothers.[1,3]

Research indicates that a significant percentage, about 50%, of women post childbirth suffer from some sort of pelvic floor dysfunction, and urinary incontinence appears to be the most common one (Bo et al., 2009).[5] Women that had a vaginal delivery are at a particularly higher risk of having PFD, specially prolonged labor, having a large baby, or using forceps or vacuum extraction (Delancey, 2005).[6] Nevertheless, women who have undergone a cesarean section are not entirely free from postpartum PFD symptoms, These concerns do not only harm the physical condition of the women, but also poses a serious threat to their psychological status and overall QoL.[3,7]

There are interventions including weight loss and pelvic floor muscle training (PFMT) that may lower the chance of developing PFD. However, scholars concur that identifying women who are most at risk of developing PFD in the future is the first step in PFD prevention methods[8.] The current body of evidence regarding which obstetric risk factors ought to be evaluated in connection with PFD is not entirely consistent. This is because the psychophysiology of PFD is multi factorial, meaning that the kind of birth and circumstances related to delivery affect it. Because of this, these relationships might not be consistent if only individual risk factors are included. Due to these illnesses' lengthy latency, research on the connection between PFD and childbirth is difficult.[9,10]

According to recent research, women's health-related quality of life (HRQoL) is negatively impacted by the presence of these pelvic floor diseases and the symptoms they cause; they also have a direct detrimental impact on their physical, mental, sexual, and social well-being[11,12]. HRQoL has emerged as a key metric in the evaluation of health care The World Health Organization (WHO) defines "Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns But a low HRQoL score can predict hospitalization, mortality, resource consumption rates[13], and physical decline. Research on the effects of pelvic floor problems and their symptoms on women's HRQoL have shown conflicting findings;[13,14] however, not all disorders have been taken into account, and the majority of the research neglected other phases of a woman's life in favor of focusing on the perinatal period [14,15]. These illnesses' high prevalence indicates that many women suffer from them. This makes it a pressing public health and women's health issue that requires attention due to the significant impact on health and other factors like quality of life.[16,17]

The primary objective of the study was to assess prevalence of PFD and risk factors, as well as its impacts on quality of life among women attitudes of women.

METHODOLOGY:

Study design: This study was a cross-sectional study. **Study setting**: Study sessions were held in Mahatma Gandhi Medical College and research institute, Puducherry. where the subjects were assessed, data were collected. **Sampling method:** All participants were selected by convenient sampling method. The inclusion criteria for this study were the postpartum women's. A total of 100 Postpartum women were included in this study. The exclusion criteria were women under 18 years of age, having a mental and/or cognitive disorder that may affect data collection, pregnancy, unstable fractures, tumor, abdominal hernias, cardiopulmonary illness, who can easily fatigue.

2. PROCEDURE

We met postpartum women's and explained the procedure of this study. After Obtaining written informed consent, they were questioned about the presence of pelvic floor dysfunction as well as other subjects like parity, delivery method, prior deliveries, baby weight, age, incontinence (if any), type of incontinence, and history of prior incontinence or prolapse surgery.[1,2,3] Their answers were recorded in the enclosed questionnaire, which was administered by qualified medical professionals.

After confirming pelvic floor dysfunction complications, 100 participants were asked to complete the King's health questionnaire to assess the impact of pelvic floor dysfunction complications on their quality of life.[18]

OUTCOME MEASURE:

The King's Health questionnaire is composed of 21 items investigating 9 domains

DESCRIPTION OF QUESTIONNARIE

The king's health questionnaire is composed of 3 parts;

- Part1 General health perception and incontinence impact
- Part 2 Role limitations, physical limitations, social limitations,

personal relationship, emotions, sleep\energy. Severity measures

- Part 3 Symptom severity scale, a list of 10 bladder problems plus another category that can be specified by the person using the questionnaire.

DOMAINS

- General health perceptions
- Incontinence impact
- Role limitations
- Physical limitations
- Social limitations
- Personal relationship
- Emotions
- Sleep/Energy
- Severity measures

Urinary incontinence on health-related quality of life is the questionnaire. The three-part questionnaire assesses several facets of the person's daily activities. The study's multilingual authors evaluated each participant and provided an explanation of the questionnaire and scoring system in the individual's mother tongue. The final score is calculated and examined after the participant's response is recorded on the Likert scale.[18]

RESULT ANALYSIS:

The PFD prevalence rate in postpartum women who participated in the study was 43.0%. This means that at least 43 out of 100 women were found to have PFD. The most affected age group was 31-35 years (34.9%), and 26-30 years came second (27.9%). Furthermore, a strong relationship was found between age and PFD symptoms severity.

Age Group 31 - 35 years are most affected (34.9%) while the age group 26 - 30 comes second (27.9%).For the Impact on Quality of Life With the King's Health Questionnaire, 95% suffered from stress urinary incontinence and 88% were found to have nocturia.80% were bounded by work and daily role activities, and 90% of the people suffered from depression as a result of PFD symptoms **significantly affects postpartum women's quality of life**, especially in older age groups. **Early screening, pelvic floor exercises, and medical interventions** are crucial for improving **postpartum recovery and well-being.**

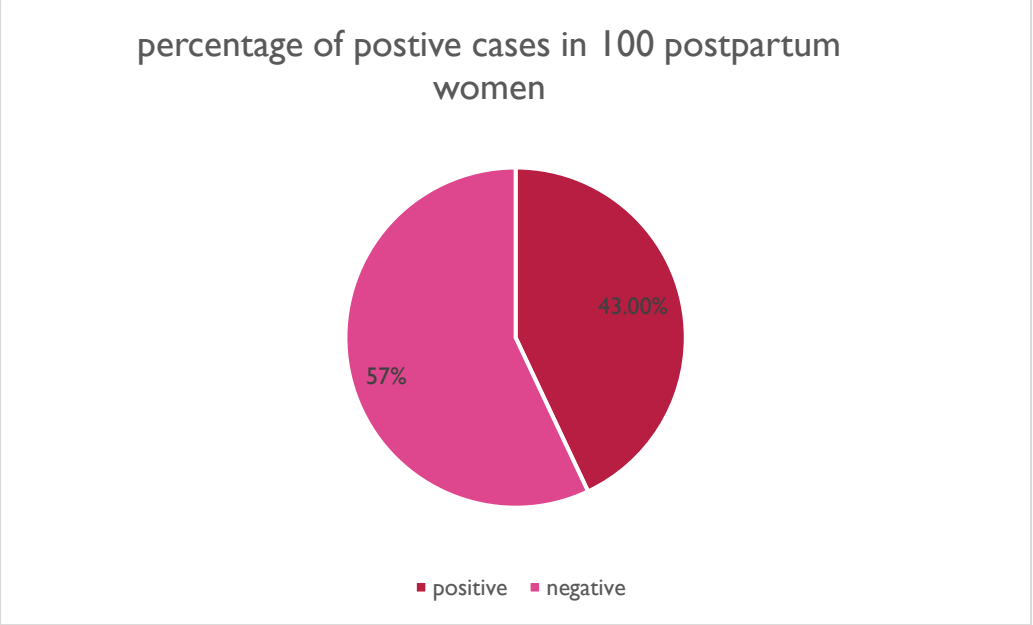
STATISTICAL ANALYSIS:

Descriptive statistics were used to summarize the data collected in simple numerical form using MS Excel. The data was then statistically analyzed and presented in the form of pie charts and bar diagrams. A total of 100 participants data were collected from postpartum women.

TABLE 1 POSITIVE CASES IN 100 POSTPARTUM WOMEN'S

Status	Percentage
Positive	43.0%
Negative	57%

Table 1 shows the proportion of postpartum women who tested positive for the condition under investigation (43.0%) and The percentage of postpartum women who had negative test results is known as the "negative cases" (57.0%).

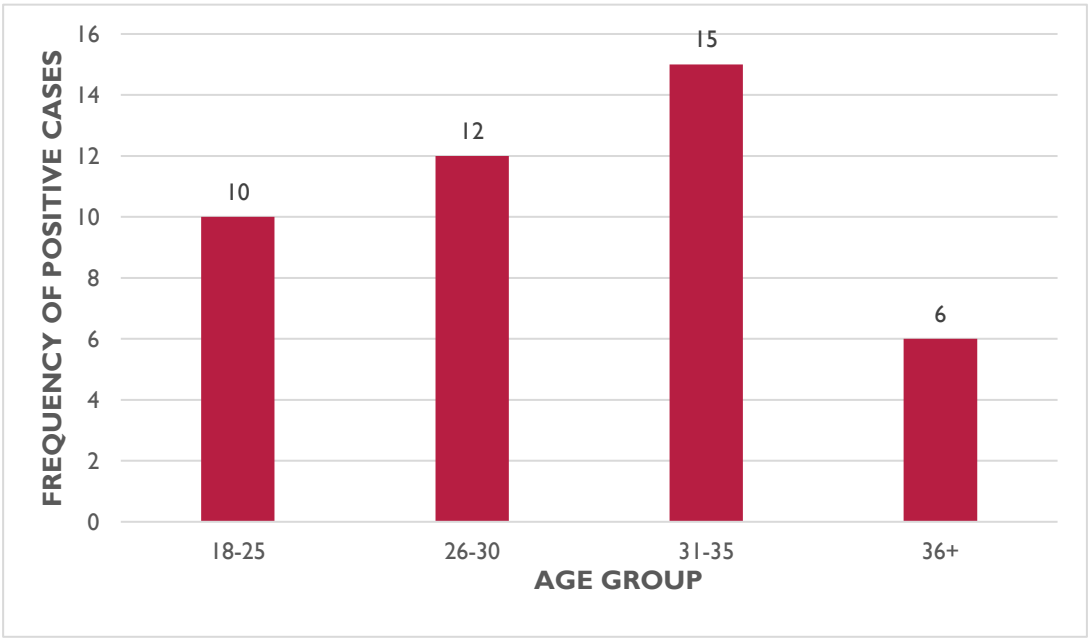


GRAPH 1 PERCENTAGE OF POSITIVE AND NEGATIVE CASES IN 100 POSTPARTUM WOMEN'S

TABLE -2 AGE DISTRIBUTION OF POSITIVE CASES IN POSTPARTUM WOMEN'S

ge	Frequency	Percentage
18-25	10	23.3%
26-30	12	27.9%
31-35	15	34.9%
36+	6	14.0%

Table shows that the majority of postpartum women in the study are between 31-35 **years old (34.9%),** followed by 26-30 **years (27.9%).** The largest proportion of participants belonged to the 31-35 age group (34.9%), followed by 26-30 (27.9%), indicating that most postpartum women's experiencing pelvic floor dysfunction affect their quality of life.

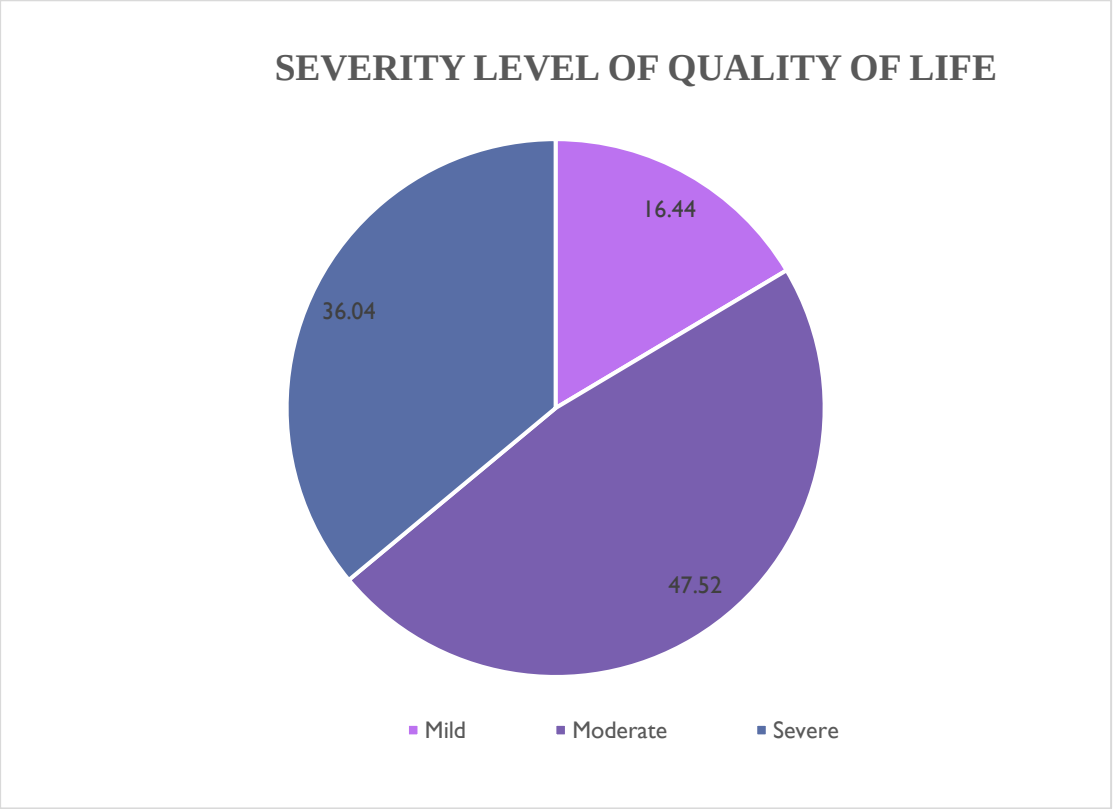


GRAPH 2 AGE DISTRIBUTION OF POSITIVE CASES IN POSTPARTUM WOMEN'S

TABLE 3 FREQUENCY DISTRIBUTION OF SEVERITY LEVEL

SEVERITY LEVEL	PERCENTAGE
MILD	16.44%
MODERATE	47.52%
SEVERE	36.04%

TABLE 3 Shows the analysis of frequency distribution of postpartum severity level, reveals the significant percentage.

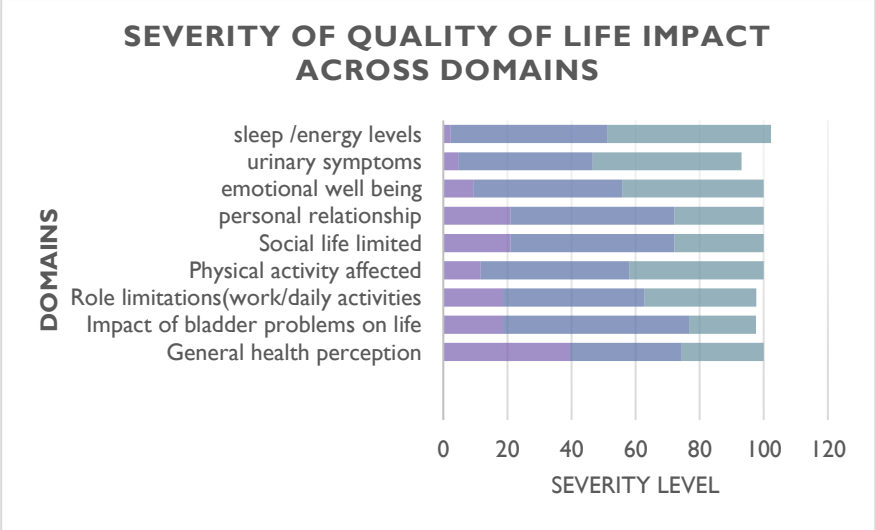


GRAPH 3 THE ABOVE PIE CHART SHOWS THE SEVERITY LEVEL OF QUALITY OF LIFE AMONG POSTPARTUM WOMEN.

TABLE 4 NTERPRETATION OF KING' S HEALTH QUESTIONNAIRE (KHQ) RESULTS FOR POSTPARTUM WOMEN

DOMAIN	PERCENTAGE	INTREPRETATION OF QUALITY OF LIFE
General health perception	39%	Many postpartum women believe that their health is fair, which suggests that they are still dealing with mental and physical difficulties following childbirth.
Impact of bladder problems on life	79%	Significant effect on daily activities

Role limitations (work/daily activities	80%	Lower levels of independence and productivity at work
Physical and social limitations		
Physical activity affected	88%	Due to incontinence, many women avoided exercise.
Social life limited	79%	Social interactions decreased due to a fear of leakage.
Personal relationship	79%	Social interactions decreased due Problems with intimacy brought on by discomfort and self-consciousness
Emotional well being		
Feeling depressed	90%	A considerable mental health burden is shown by the high rate of depression among postpartum women.
Feeling anxious	88%	Anxiety is high, probably as a result of everyday challenges, body image issues, and fear of leakage.
Urinary symptoms		
Urge incontinence	79%	Daily tasks are interrupted by sudden and overwhelming cravings.
Stress incontinence	95%	Leakage with effort, impacting self-confidence
Sleep energy levels	98%	nocturia-related fatigue and sleep problems.
Nocturia	88%	Reduced energy and disturbed sleep



GRAPH 4 SEVERITY OF QUALITY-OF-LIFE IMPACT ACROSS DOMAINS

- **Green** shades indicate **higher severity** in a particular domain.
- **Emotional well-being and sleep/energy levels** show the most severe impact.
- **urinary symptoms show moderate impact.**
- **General health perception and role limitations** are also significantly affected.

3. DISCUSSION

Prevalence of Pelvic Floor Dysfunction and Its Impact on The Quality of Life Among Postpartum Women. In recent decades, epidemiological studies have increasingly sought to determine the relevance of pelvic floor dysfunction (PFD) among a significant number of postpartum women globally. Notably, PFD has variation of forms that often go unreported in the medical history and on average occurs in 34% of women (Bo et al., 2009).[22] Embarrassment causes a myriad of symptoms, which can include incontinence during voluntary movement, concealed during social engagement, proctitis, or prolapse of pelvic organs, and sexual dysfunction. Other correlates include the PFD risk factors such as method of delivery (vaginal cesarean section) and gravidity and the birth weight of the child (Sampson et al., 2014).[23] Lack of muscles in pelvic floor strengthens the risk of PFD into a dominating aspect if magnified by other factors. One of the French twin's studies discovered that regarding gravity, 2 children disseminated via natural approach were discovered to be more severely afflicted due to how they gave birth through the opening established on the side of the body (Hagen & Stark, 2011).[24]

The burden of PFD has wide-ranging consequences on the quality of life (QoL) of postpartum women. A woman's well-being can be hampered significantly by the physical, psychological, and social ramifications of PFD. Women suffering from PFD usually report restrictions in their daily activities, physical mobility, and social participation. For example, urinary incontinence, one of the most commonly known impairments resulting from PFD, can result in anxiety, low self-esteem, and avoidance of physical exercises (Hay-Smith and others, 2008).[7,25] In addition, the emotional aspects of living with PFD symptoms are considerable, including social withdrawal, depression, and low self-esteem (Dumoulin and Hay-Smith, 2010).[25] In addition, PFD can have negative impacts on intimate relationships, resulting in sexual dysfunctions and lower satisfaction in relationships (Barton and others, 2013).[26]

This was particularly evident in a study where many women reported previously undiagnosed PFD after childbirth. And though some women reported experiencing these symptoms during the postpartum period, they were shocked at how many years after they gave birth were symptoms of PFD still powerful as ever. For instance, in a study conducted by Nygaard- 17% of women reported having urinary incontinence years after childbirth which greatly reduced their physical and psychological wellbeing. The long-lasting effects ranging from physical, psychological, emotional, and social difficulties heighten the need for appropriate preventive measures which could help in the alleviation of PFD symptoms.[27]

Different approaches exist when it comes to the treatment of PFD, from relatively simple pelvic exercises like Kegels to surgery, and they all depend on the particular case. The literature suggests that pelvic floor muscle training (PFMT) is beneficial in treatment of urinary incontinence and in enhancing the quality of life (Dumoulin et al., 2014).[25] Moreover, therapy and psychosocial support play an important role in working with PFD's emotional challenges, especially for women suffering from anxiety and depression because of the condition.

Undoubtedly, the prevalence of PFD and its consequences for quality of life is recognized, and yet there is a considerable

gap in knowledge among healthcare professionals regarding the necessity of screening for PFD in postpartum women. Many women are too embarrassed to seek assistance or do not know that help is available. Campaigns aimed at fostering a culture of discussing pelvic floor disorders and educating women in the postnatal period about the existence of PFD would facilitate better management of their health and enhance their quality of life.

All in all, pelvic floor dysfunction is a commonly experienced and complex challenge among many postpartum women with repercussions for their physical, psychological, and social health. With further research on the prevention and treatment methods of PFD plus the effects it has on women in the long run, the quality of life for these women can be improved. Softened recognition and intervention throughout their lives can aid in demographic PFD impacts. Descriptive statistics were used to summarize the data collected in simple numerical form using MS Excel. The data was then statistically analyzed and presented in the form of pie charts and bar diagrams postpartum women's quality of life and their and their pelvic floor muscle strength. In conclusion, PFD is a prevalent issue among postpartum women that adversely affects their quality of life. There is a need for routine screening and timely intervention to address this condition and improve the overall well-being of affected women.

4. CONCLUSION

The severity of symptoms associated with postpartum women's pelvic floor dysfunction is significantly influenced by age. Due to bladder dysfunction, older postpartum women (31–35 and 36+) have more severe limits in their ability to work, socialize, feel emotions, and sleep. The fact that younger women (18–25 and 26–30) still have a significant but somewhat lesser impact shows that postpartum bladder issues affect people of all ages. Prioritizing interventions such as pelvic floor exercises, lifestyle changes, and medical consultations is important, particularly for older postpartum women who are more likely to experience long-term difficulties.

LIMITATION:

- Only 100 postpartum women were included, which may not fully represent a diverse population.
- This may introduce selection bias, limiting the generalization of the results.
- The study is cross-sectional, meaning it does not track changes in symptoms over time.
- Responses to the King’s Health Questionnaire may be influenced by personal perception and bias.
- The study does not explore the role of socioeconomic status, psychological history, or pre-exist health conditions.

AUTHOR CONTRIBUTION:

Jannathul Firthous M is the author. A study was designed, data was gathered, analyzed, and evaluated. Dr. K. Senthil wrote the article, revised it critically, and approved the final version before it was published.

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