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Women's Attitudes Toward Postpartum Exercises and Associated Factors at Al-saudi Maternity Hospital, Kassala, Eastern of the Sudan(2025)

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Abstract

Background: The postpartum period is a critical phase for women's physical and psychological recovery. Postpartum exercise supports physical fitness, stress reduction, and prevention of maternal complications; however, participation remains low and is influenced by women's attitudes and perceptions.

Objective: To assess women's attitudes toward postpartum exercise and to identify factors influencing these attitudes, including beliefs, motivation, perceived benefits, perceived barriers, and social support.

Methodology: A descriptive cross-sectional hospital-based study was conducted among 289 postpartum women attending Kassala Maternity Hospital, eastern Sudan in March-April 2025. Participants were recruited following ethical approval and informed consent. Data was collected through face-to-face interviews using a structured questionnaire covering sociodemographic characteristics, attitudes toward postpartum exercise, and associated factors. Data was analyzed using SPSS version 27. Descriptive and inferential statistics were applied, with statistical significance set at $p < 0.05$.

Results: Most participants were housewives aged 20–35 years (62.3%; 92.4%), half were multiparous (50.9%). More than half delivered by caesarean section (55.7%), and 65.7% were in the first postpartum week. Strong social support was reported by 97% of women. Positive attitudes toward beliefs and perceived benefits of postpartum exercise were high (85.3%), as were motivation and perceived benefits (87.6%). Fatigue (51%) and baby-care responsibilities (53%) were the main barriers perceived. Health-care professionals' encouragement was mentioned by (92.4%), while family and partner support was moderate. The absence of postpartum-specific exercise programs was reported by 98.3% of participants. Significant associations were found between postpartum exercise and age, education level, parity, and family support ($p < 0.05$).

Conclusion: Postpartum women demonstrated positive attitudes and strong motivation toward postpartum exercise despite practical barriers. Postpartum-specific exercise programs within maternity services are recommended.

Keywords: women's attitudes, postpartum exercise, motivation, barriers, social support. .

Background:

The postpartum period, frequently conceptualized as the "fourth trimester," represents a critical and dynamic transitional phase characterized by profound physiological, anatomical, and psychological adaptations [1]. During pregnancy and childbirth, the maternal body undergoes substantial mechanical and hormonal stress, which commonly culminates in weakened pelvic floor musculature, core instability, diastasis recti abdominis (DRA), and altered lumbopelvic biomechanics [2,3]. Historically, clinical management during the immediate puerperium favored prolonged physical rest and restriction of movement [4]. However, contemporary obstetric and physical therapy guidelines heavily advocate for the structured, early reintegration of physical activity to facilitate optimal physiological recovery, restore functional capacity, and enhance long-term maternal health outcomes [5,6].

Engaging in targeted postpartum exercise regimens plays a foundational role in neuromusculoskeletal rehabilitation [7]. These specialized interventions typically incorporate evidence-based pelvic floor muscle training (PFMT), progressive deep core stabilization (targeting the transversus abdominis), and low-impact cardiovascular conditioning [8,9]. Clinical evidence strongly demonstrates that early, individualized exercise prescription effectively accelerates the restoration of pelvic floor structural integrity, thereby significantly mitigating the incidence of stress urinary incontinence and pelvic organ prolapse [10,11]. Furthermore, structured physical rehabilitation is highly effective in correcting structural alignment, improving lumbo-pelvic stability, and reducing persistent postpartum lower back and pelvic girdle pain [12,13].

Beyond physical and structural rehabilitation, the therapeutic benefits of postpartum physical activity extend substantially into psychosocial and metabolic domains [14]. Regular exercise serves as a powerful, non-pharmacological intervention that optimizes metabolic profiles, assists in healthy postpartum weight retention management, and improves cardiovascular fitness [15,16]. Neurobiologically, physical exertion stimulates the release of endorphins and regulates cortisol pathways, which markedly enhances sleep quality, alleviates maternal fatigue, and reduces the risk or severity of postpartum depression and anxiety disorders [17,18]. These mental health benefits are critical,

given the high prevalence of mood disturbances among new mothers during the first postpartum year (19).

Despite the overwhelming consensus regarding these multi-systemic benefits, the initiation, design, and progression of postpartum exercise programs cannot follow a generalized approach (20). Physical rehabilitation must be highly individualized, requiring comprehensive screening for maternal readiness (21). Clinical prescription must strictly account for the mode of delivery—differentiating between uncomplicated vaginal delivery and major abdominal surgery via cesarean section—as well as pre-pregnancy fitness baselines, tissue healing rates, and any co-occurring obstetric or medical complications (22,23). Consequently, establishing a multidisciplinary collaborative framework involving obstetricians, midwives, pelvic health physical therapists, and exercise physiologists is paramount to ensuring safe, sustainable, and effective physical recovery for the postpartum population (24,25).

Research Question

What are women's attitudes toward postpartum exercise, and how do beliefs, perceived benefits, motivation, perceived barriers, and social support influence these attitudes?

General Objective

To assess women's attitudes toward postpartum exercise and identify the key factors influencing these attitudes, including beliefs, motivation, perceived benefits, perceived barriers, and social support.

Specific Objectives

- To determine mothers' attitudes toward postpartum exercise and the factors influencing these attitudes.
- To examine the association between mothers' attitudes toward postpartum exercise and selected socio demographic characteristics.

Methods

Study design: Descriptive, cross-sectional, hospital-based study.

Study area: Kassala Al-Saudi Maternity Hospital is a tertiary maternity facility in eastern Sudan, established in 1986 and extensively rehabilitated through international support. It provides 24-hour

comprehensive maternal, neonatal, surgical, and specialized reproductive health services, supported by a trained multidisciplinary workforce and modern medical infrastructure.

Study population: All postpartum women during study period

Inclusion criteria: Mothers who are admitted on post-natal units, and mothers attending a post-natal clinic for follow up and family planning.

Exclusion criteria: Post-partum mothers with mental disorders and very ill mothers

Sample Size**:** Based on the frequency of postpartum mothers attending Al-Saudi Maternity Hospital (N = 2,497), the sample size was calculated using the formula $n = \frac{N}{1+N(d^2)}$. With a margin of error of approximately 5.5%, the required sample size was 274. After adding about 6% to compensate for possible non-response, the final sample size was 289 postpartum mothers.

The study employed a probability-based simple random sampling technique to select postpartum mothers. Data was collected using a structured, closed-ended questionnaire administered through interviewer-administered methods. The questionnaire consisted of two sections covering socio-demographic characteristics and mothers' attitudes toward postpartum exercise. Data collection was carried out by researchers (march-April 2025). Data was processed and analyzed using SPSS software Ver -27. Descriptive statistics were used to summarize the data, while Pearson's correlation and chi-square tests were applied to examine relationships and associations between variables. Statistical significance was determined at a p-value of 0.05 or less.

Ethical approval was obtained from Alneelain university and permission from alsauidi maternity hospital and consent from all women after clear explanation to them.

Result:

Table (1) Sociodemographic characteristics and other information of the women n =289			
Variable	Items	Frequency	Percentage
Age in years	< 20	76	11.4
	20-35	180	62.3
	36and more	33	26.3
Education Level	No school Education	77	26.5
	Primary School	105	36.3
	Secondary school	53	18.3
	University	54	18.7
Occupation	Housewives	267	92.4
	Employee and workers	22	7.6
Resident	Urban	152	52.6
	Rural	137	47.4
Parity Status of Participants	Primi para	70	24.2
	Multipara	147	50.9
	Grand multipara	72	24.9
Space between children	Less than two years	95	32.9
	More than two years	194	67.1
Type of delivery	Normal vaginal	128	44.3
	s/c	161	55.7
Participant postpartum period	First week	190	65.7
	2^{nd} to 6^{th} week and more	99	34.3
Family interaction	Good	281	97
	Poor	8	3

Table 1showed that : most participants were aged 20–35 (62.3%), housewives (92.4%), and urban residents (52.6%). Majority were multiparous (50.9%), delivered by C-section (55.7%), in their first postpartum week (65.7%), and reported good family interaction (97%).

Table (2) women's attitudes towards Beliefs and Perceived Benefits					***n = 289***
Statement / scales	***Strongly disagree***	***Disagree***	***Undecided***	***Strongly agree***	***Agree***
	F/%	F/%	F/%	F/%	F/%
The participant knows post-natal exercise is necessary, helping to regain her pre-pregnancy body.	5/1.7	11/3.8	31/10.7	104/36	138/48.8
Regular exercise improves overall mood and mental health.	3/1	7/2.4	29/10	111/38.4	139/48.1
Exercising regularly increases energy levels.	4/1.4	4/1.4	32/11.1	110/38.1	139/48.1
post-natal exercise preventing bladder incontinence	11/3.8	4/1.4	32/11.1	109/37.7	133/46.0
post-natal exercise preventing bowel incontinence	10/3.5	5/1.7	31/10.7	107/37.0	136/47.1
Regular exercise preventing uterine prolapsed	6/2.1	4/1.4	30/10.4	112/38.8	137/47.4
Regular exercise preventing Diastases Recti	4/1.4	5/1.7	30/10.4	111/38.4	139/48.1
Average	***4.1%***		***10.6%***	***85.3%***	

Table 2 demonstrated a highly positive attitude toward post-natal exercise benefits (85.3%). Most participants agreed that exercise helped regain pre-pregnancy body (84.8%), improved mental health (86.5%), boosted energy levels (86%), and prevented physical complications (83%–86%).

Table (3) Barriers to Postpartum Exercise from participant prospect (N = 289)

Statement	Strongly Disagree F (%)	Disagree F (%)	Undecided F (%)	Strongly Agree F (%)	Agree F (%)
Lack of interest	29 (10.0%)	49 (17.0%)	112 (38.8%)	3 (1.0%)	96 (33.2%)
Back pain prevents exercise	29 (10.0%)	49 (17.0%)	141 (48.8%)	3 (1.0%)	67 (23.2%)
Fatigue prevents exercise	34 (11.8%)	95 (32.9%)	12 (4.2%)	53 (18.3%)	95 (32.9%)
Baby care responsibilities	33 (11.4%)	88 (30.4%)	14 (4.8%)	53 (18.3%)	101(35.0%)
Caesarean delivery makes exercise challenging	48 (16.6%)	85 (29.4%)	21 (7.3%)	54 (18.7%)	81 (28.0%)
Lack of family support/resources	46(15.9%)	85(29.4%)	14 (4.8%)	59 (20.4%)	85 (29.4%)
Cultural barriers	197 (68.2%)	2 (0.7%)	1 (0.3%)	48 (16.6%)	41 (14.2%)
Average (%)	43.0%		15.6%		41.5 %

Table three indicated that baby care (53%) and fatigue (51%) were the primary barriers hindering post-partum exercises.

Table (4) Women's Perceptions of Exercise Benefits and Motivation n = 289

Statement	Strongly Disagree n (%)	Disagree n (%)	Undecided n (%)	Agree n (%)	Strongly Agree n (%)
Regular exercise improves physical and mental well-being	8 (2.8%)	2 (0.7%)	25 (8.7%)	81(28.0%)	173 (59.9%)
Regular exercise increases energy and combats postpartum fatigue	8 (2.8%)	—	25 (8.7%)	82(28.4%)	174 (60.2%)
Exercise helps return to pre-pregnancy body and improves self-esteem	16 (5.5%)	—	27 (9.3%)	83(28.7%)	163 (56.4%)
Exercise supports self-care and personal time	5 (1.7%)	—	27 (9.3%)	84(29.1%)	173 (59.9%)
Previous exercise motivation influences postpartum exercise	10 (3.5%)	—	26 (9.0%)	81(28.0%)	172 (59.5%)
Average (n / %)	**3.4%**		**9.0%**	**87.6%**	

Table 4 highlighted that the vast majority of participants (87.6%) acknowledged the over all benefits of postpartum exercise and the role of prior motivation.

Table (5) Social Support and *factors* which encourage the Participant's to perform post-partum exercise (N = 289)

Statement	**Strongly Disagree F (%)**	**Disagree F (%)**	**Undecided F (%)**	**Strongly Agree F (%)**	**Agree F (%)**
Partners supports exercise efforts	35 (12.1%)	38(13.1%)	43 (14.9%)	5 (1.7%)	168(58.1%)
Friends/family encourage exercise	31 (10.7%)	36(12.5%)	42 (14.5%)	3 (1.0%)	177(61.2%)
Availability of postpartum-specific exercise programs	247 (85.5%)	37(12.8%)	0 (0.0%)	1 (0.3%)	4 (1.4%)
Health care professionals encourage exercise after childbirth	11 (3.8%)	0 (0.0%)	11 (3.8%)	0 (0.0%)	267(92.4%)
Average (%)	**37.6%**		**8.3%**		**54.1%**

Table 5 indecated high encouragment from health care proffissionals (92.4%),and family friends (62.2%), but revealed a severe scarcity of speciialized post –partum exercises programs

Table (6) **Correlation Between Demographic Variables and Attitude Towards Postpartum Exercise n=289**

Variable	Test	P-value	Interpretation
Age	Chi-square	0.032	Significant: younger women (20–35 yrs) had more positive attitudes
Education level	Chi-square	0.001	Highly significant: higher education associated with positive attitudes
Occupation	Chi-square	0.112	Not significant: attitude similar among housewives and employed participants
Parity	Chi-square	0.045	Significant: multiparous and grand multiparous women had higher awareness
Residence	Chi-square	0.068	Not significant: urban residents' slightly higher attitude scores
Type of delivery	Chi-square	0.089	Not significant: vaginal vs. cesarean delivery had minimal effect
Family support	Chi-square	0.001	Highly significant: strong family support correlated with positive attitudes

Table six revealed that: there was statistical significant association with attitudes and age, education, parity, and family support put no statistical significant relation between attitude and occupation, residence and type of delivery.

Discussion

Many participants (62.3%) were aged between 20 and 35 years, representing the most active reproductive and postpartum age group [26]. This age distribution is comparable to findings from previous studies on PPE conducted in Sudan, India, where most postpartum women were also within this age range [13,18]. Younger women may have greater physical capacity for exercise, but in this study face competing demands such as childcare and household responsibilities [27].

The nearly equal distribution of participants between urban (52.6%) and rural (47.4%) areas suggests that the findings reflect experiences across different residential settings. Similar studies have reported that women in rural areas often face additional barriers to PPE, including limited access to health services and exercise facilities, while urban women may benefit from better health information but still struggle with time constraints [26,27].

Educational status revealed that a large proportion of participants had low educational attainment, with over one-quarter being illiterate (26.6%) and more than one-third having only primary education (36.3%). This pattern is consistent with previous PPE studies in developing countries, where limited education has been associated with lower awareness of specific exercise guidelines, despite generally being positive attitudes [28]. Occupational data showed that 92.4% of participants were housewives, a finding commonly reported in postpartum studies; it often increases domestic workload and childcare responsibilities, which are well-documented barriers to PPE in this study and similar study has highlighted that [29].

Obstetric History and Social Support in Relation to Postpartum Women

The current study provides important insights into the obstetric history and social support of the participants, which are key determinants of postpartum health behaviors, including engagement in postpartum exercise (PPE). The findings indicate that 50.9% of the participants were multipara, having delivered two or more children prior to the current birth. This is consistent with other studies in Sudan and India, where multiparity was common among postpartum populations [13,18]. Multiparous women often have prior experience with childbirth and postpartum recovery, which can influence their confidence and attitudes toward engaging in PPE. However, higher parity can also be associated with increased household and childcare responsibilities, which may act as barriers to regular exercise [30].

Regarding interpregnancy intervals, 67% of participants had a previous child more than two years prior, suggesting substantial spacing between pregnancies. Adequate spacing is known to support maternal physical recovery and may positively influence the ability to engage in postpartum physical activity. Similar findings were reported in the study that note women with longer interpregnancy intervals often have better recovery and higher energy levels, facilitating engagement in exercise [28].

In terms of the most recent birth, many women (65.7%) were in their first postpartum week, and 55.7% delivered via cesarean section. The prevalence of cesarean deliveries is comparable to other studies in low- and middle-income countries, where cesarean rates range from 30–60% depending on

hospital and population characteristics [31]. Cesarean deliveries may delay the initiation of postpartum exercise due to surgical recovery, pain, and limited mobility, consistent with previous research that indicate delivery type is a barrier to PPE [22].

A notable finding in this study was the presence of a strong social support network, with 97% of participants reporting good family interaction. Positive social support is widely recognized as a critical facilitator of postpartum health behaviors, including exercise. This high level of family support in the current population suggests a favorable environment for promoting PPE, which may mitigate some of the barriers posed by fatigue and childcare responsibilities. Previous studies have consistently shown that women with supportive partners and family members are more likely to engage in postpartum physical activity, as they receive both encouragement and practical assistance with childcare and household duties [16,20].

Women's Attitudes and Perceived Benefits of Postnatal Exercise:

The overall average attitude toward postnatal exercise among participants in this study was 80.3%, indicating a generally positive perception of postpartum physical activity. This reflects that many women recognize the importance of exercise for recovery and overall well-being after childbirth. Specifically, 84.8% of participants believed that postnatal exercise is necessary for regaining pre-pregnancy body shape, 86.1% agreed that regular

exercise improves mood and mental health, and 86% reported that exercise increases energy levels. These findings are consistent with previous research, which has shown that women perceive postnatal exercise as beneficial for both physical recovery and psychological well-being, as reported that postpartum women generally hold positive beliefs about exercise, citing improvements in mood, energy, and body shape as key motivators for engaging in physical activity [21]. Other study found that a high proportion of postpartum women believed that exercise could improve mental health, physical fitness, and overall quality of life [19].

Regarding specific health benefits, participants in the current study strongly agreed that postnatal exercise can prevent bladder incontinence (83%), bowel incontinence (84%), uterine prolapse (86%), and Diastasis Recti (86%).

These findings suggest that women are aware of the functional and pelvic floor benefits of exercise. This finding aligns with studies from India and Sudan, which highlighted that postpartum exercise benefits contribute to higher participation rates; also emphasized that women who understood the role

of postnatal exercise in preventing pelvic floor dysfunction were more likely to engage in structured exercise programs [13,30].

The high levels of positive attitudes to benefit of PPE in this study may reflect increasing dissemination of health information via healthcare providers. Comparatively, other studies in low- and middle-income countries have reported slightly lower awareness of specific benefits, particularly regarding prevention of bladder or bowel incontinence, where knowledge ranged from 60–75% (31). Overall, these findings indicate that participants recognize both general and specific health benefits of postnatal exercise, which is likely to enhance motivation to participate in postpartum physical activity. However, as other studies have shown, positive beliefs alone are insufficient if barriers such as fatigue, baby care responsibilities, or lack of support exist [17].

Barriers to Postpartum/Postnatal Exercise:

The most prevalent barriers reported by participants were fatigue and the demands of baby care, which prevented them from exercising. This indicates that although participants hold positive attitudes towards exercise, the practical realities of postpartum life—such as lack of sleep and multiple caregiving responsibilities—impose significant obstacles to participation [17].

More than half of the participants (57%) reported that baby care responsibilities significantly limited their ability to exercise. This proportion is higher than that reported in a previous study conducted in India and Sudan, where only 23% and 28% of respondents, respectively, identified childcare responsibilities as a primary barrier to postnatal exercise [13,18]. Similar findings reporting caregiving demands and increased domestic workload were reported [22].

A substantial 57% of respondents agreed or strongly agreed that fatigue/poor/lack of sleep prevented them from exercising, consistent with prior studies identifying postpartum fatigue as a major barrier to postnatal exercise ([17].

Treatment/even more/lack of partner support was also identified as a barrier. 31% agreed or strongly agreed that lack of partner or family support hindered exercise, while 44% disagreed. This suggests that for a notable combination of a numerical factor, lack of support is indeed a barrier. The finding aligns with other studies that identified lack of partner/family support as a significant barrier to PPE [20].

Other factors were perceived as less significant barriers. For example, lack of space was not seen as a barrier, with 54% of participants disagreeing that it prevented them from exercising. This contrast

somewhat with previous research, which reports that postpartum women often experience environmental constraints depending on home layout, but in this study, space was not a dominant barrier [29].

Interestingly, a large majority of participants (85%) did not see traditional customs/beliefs as a barrier, suggesting that cultural beliefs were not an impediment in this population. This contrasts with other studies, which report that traditional postpartum restrictions and cultural beliefs significantly restrict women's physical activity after childbirth [12,23].

The impact of delivery mode was also a divided issue. Participants were split almost evenly on whether delivery type (cesarean vs. vaginal) was a barrier to exercise (47% agreed, 49% disagreed). This is consistent with studies reporting that cesarean delivery poses unique challenges to starting exercise due to surgical pain, delayed recovery, and maternal anxieties, which can delay engagement in PPE [22].

Failure to cite lack of health support was not seen as a major barrier: 48% of participants agreed that it was a barrier and 41% disagreed. This suggests that personal health and support systems present variable challenge among participants. Nevertheless, several studies have identified lack of health care provider support as a significant barrier to postpartum exercise in women who receive formal encouragement and practical guidance from healthcare providers [32,33].

Women's Perceptions of Course-Benefit and Motivation:

The present study reveals that participants have largely positive perceptions of the benefits and motivational value of postpartum exercise, with an overall average agreement of 87.1%. These findings indicate strong appreciation of both physical and psychological advantages of exercise during the postpartum period, and are largely consistent with research from various low- and middle-income settings [18,21].

As in the study, 87.1% of participants agreed that regular exercise improves physical and mental well-being. This finding aligns with studies which reported that postpartum women perceive general exercise as beneficial for stress reduction, emotional stability, and overall health [3,17]. This reinforces the highlights that positive perceptions of physical activity promote psychological well-being and reduced risk of postpartum depression [2]. The high agreement in the current study reinforces the universal recognition of these health benefits across female populations.

A large proportion of participants (86.4%) believed that regular exercise increases energy levels and helps restore pre-pregnancy body shape. This finding is consistent with previous studies that identified exercise as a strategy to recover energy levels and regain body figure during the postpartum period, and reported that women who engaged in postpartum exercise experienced improved energy levels and lower fatigue despite having a newborn [15].

Regarding body image, 82.5% of participants agreed that exercise helps restore pre-pregnancy body shape and improves self-esteem. This perception is consistent with findings from studies for mothers; that poor body image and desire to return to pre-pregnancy weight are powerful motivators for engagement in postpartum exercise [19,21]. Similar results were observed in studies conducted in multi-ethnic and low-income countries, indicating that body image is a universal factor influencing postpartum exercise behavior [23,24].

Social support and post-partum exercises:

Postpartum physical activity with women reporting higher participation when they received encouragement and practical help from family members [33]. On the other hand, lack of partner or family support was a key barrier [20].

Only 1.7% of participants reported on the availability of postpartum-specific exercise programs, highlighting a notable gap in structured resources that could facilitate exercise engagement. However, the low availability of postpartum-specific exercise programs mirrors gaps reported in both low- and middle-income countries, where structural barriers—such as lack of organized classes or accessible facilities—limit the translation of professional advice into regular exercise [22].

In contrast, a large majority (92.4%) reported that health care professionals encouraged them to exercise after childbirth, indicating that professional guidance is widely available and highly valued. The overall average support across these indicators was 54%, reflecting moderate social and professional facilitation for postpartum exercise. The high level of encouragement from health care professionals in this study aligns with findings of the other study that emphasize the role of clinicians in motivating postpartum women and providing tailored exercise guidance [32].

Age was found to be significantly associated with attitudes toward postpartum exercise, with women aged 20–35 years exhibiting more positive attitudes compared to younger or older mothers [26]. This may be attributed to greater exposure to health information and increased motivation to regain pre-pregnancy fitness during this age range. Similar results were reported by the study that found younger

postpartum women were more likely to view physical activity as beneficial and were more likely to begin exercising during the early postpartum period [14].

Educational level had a notable influence on postpartum exercise attitudes. Women with higher levels of education demonstrated more favorable perceptions of postpartum exercise. Higher education may facilitate better understanding of the health advantages of exercise and increase confidence in adopting healthy behaviors [28]. This similarly observed among women with higher education were more likely to agree that postpartum exercise was appropriate and beneficial [11].

Multiparous and grand multiparous women showing more positive attitudes toward postpartum exercise than primiparous women. Previous childbirth experience may increase awareness of postpartum recovery needs and the role of physical activity, thereby enhancing motivation and confidence to participate in exercise. Previous studies have indicated that experience from earlier pregnancies can influence health behaviors during the postpartum period, including engagement in physical activity [30].

Family support was strongly associated with positive attitudes toward postpartum exercise, likely because support helps reduce barriers such as childcare responsibilities and time constraints. This is consistent with findings of the previous study [33].

Conclusion

The findings of this study indicate that most postpartum women demonstrated generally positive attitudes toward postpartum exercise, accompanied by strong beliefs in its benefits and a high level of motivation to engage in physical activity after childbirth. This positive outlook appears to be reinforced by support from health-care professionals and family members, highlighting the important role of social and professional encouragement in shaping women's exercise-related perceptions and intentions during the post-natal period.

Despite these favorable attitudes and motivations, actual participation in postpartum exercise was substantially constrained by several practical barriers. Commonly reported obstacles included physical fatigue, increased caregiving demands related to newborn care, limited time, and the absence of structured postpartum-specific exercise programs. These barriers may prevent women from translating positive attitudes into sustained exercise behaviors, particularly during the early postpartum period when physical recovery and childcare responsibilities are most demanding.

Recommendation

Integrate structured postpartum exercise programs into routine maternal health services.

Provide targeted postpartum exercise education and counseling by health-care professionals.

Strengthening family and social support to encourage postpartum exercise participation.

Address practical barriers such as fatigue, time constraints, and childcare responsibilities.

Implement culturally appropriate interventions targeting women with low education

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