



# Perception of Exercise Benefits and Exercise Barriers among Primiparous Women's: A Review

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Abstract:

**Background** - Lack of exercise cause of death, disease and disorders across the world. Involvement in exercise is directly linked to participant's perception of exercise benefits, motivation and barriers preventing exercise. With regard to intrinsic benefit of exercise, it can be health promotion, self-confidence or can be extrinsic such as promotion of social interaction, attendance in comfortable environment. In case of post-partum women barriers are related to child care, responsibility, and financial inability. Women who maintain or increase their sport and exercise from pre pregnancy to postpartum period experience better well-being compared to women who do not. Physical activity throughout postpartum period is important to mother's health as pregnancy is a time when risk of becoming obese is high. Therefore, there is need for reliable and valid tool that can identify and measure perceived benefits and barriers of exercise for target population. **Objective** - To study benefits and barriers in post-partum using EBBS questionnaire. (Exercise benefits and barriers scale). **Method** -The subjects of the prospective cohort study were women who are primiparous and reside in Pune, Maharashtra, India. Using conventional sampling method, 100 primiparous women were included in the study with age range of 21 to 35 years and both normal delivery and C-section delivery were included. This study was done by using a standardized validated questionnaire. **Results**- This research looked at 100 participants out of whom 70% were C-section participants and 30% were normal delivery participants. From this study we found out C-section participants perceive most barriers and benefits and normal delivery participants perceive exercise benefit and barriers less as compared to LSCS participants. **Conclusion**- In this study we found that, the most common exercise beliefs during pregnancy and many environmental, intrapersonal, and interpersonal barriers were identified in primiparous women's.

## I. Introduction:

The postpartum period begins soon after the delivery of the baby and usually lasts six to eight weeks and ends when the mother's body has nearly returned to its pre-pregnant state. The postpartum period for a woman and her new born is very important for both short-term and long-term health and well-being. A return to physical activity after pregnancy is also associated with other positive health benefits including improved psychological well-being, less anxiety and depression. Most women do not receive enough information about lifestyle behaviours postpartum from their healthcare provider women reporting a desire for more information about exercise in post-partum period. With lack of information women may not be resuming physical activity at appropriate time<sup>(10)</sup>. At least 30 minutes of moderate intensity physical activity is necessary if not all days, at least some days of the week

and greater health benefits are noted who include vigorous intensity or longer duration of physical activity<sup>(10)</sup>. Personal barriers to lack of exercise can be looking after baby, looking after family and husband, housework. Environmental barriers can be lack of knowledge about available classes or how they might access particular supports in their area cardiovascular fitness and less urinary stress incontinence<sup>(8,9)</sup>. Therefore, it is necessary to measure exercise benefits and barriers among post-partum women using standardized instrument.

Research needs to focus on the complex interplay of both personal and environmental barriers to Physical activity in the lives of postpartum women. Results of such research can provide evidence for social support strategies in the form of exercise programs and changes to social and health policy. Such a strategic approach will enhance Physical activity participation which is clearly a complex behaviour that can be challenging to initiate and maintain<sup>(13)</sup>. Research has suggested that these determinants may be best described by incorporating a social-ecological model<sup>[14, 15]</sup>. Based on this framework, a thorough exploration of factors inhibiting or enabling Physical activity participation is required.

This can be efficacious in enhancing physical activity behaviour of women, and the incorporation of such a framework may also enhance Physical activity behaviour in women of childbearing year. More research should be conducted about postpartum women's attitudes to, and feelings about, both barriers and enablers to Physical activity. The adoption of a social-ecological framework extends the understanding beyond purely personal factors. An in-depth qualitative approach allows women's own voices to be acknowledged and gives insight into the particular contexts in which new mothers participate, or not, in exercise. Thus, the aim of this qualitative study was to provide an in-depth understanding of women's beliefs about Physical activity and exercise participation during the postpartum period by incorporating the social-ecological framework.

## Materials and Methods:

The study was a conventional type of study with 100 participants. Ethical clearance was taken from the institutional ethical committee in the area where this study was. Based on the inclusion and exclusion criteria sample population was selected. The procedure of the study was described to the participants and informed consent was taken by the participants. Then a questionnaire was given to participants which was validated and reliable. Subjects were given instructions to fill out the questionnaire. After that, responses were collected. After analysing the responses, statistical data was analysed. Results and conclusions were determined. This procedure was done according to the given time of study which is 6 months.

## II. Inclusion and exclusion criteria:

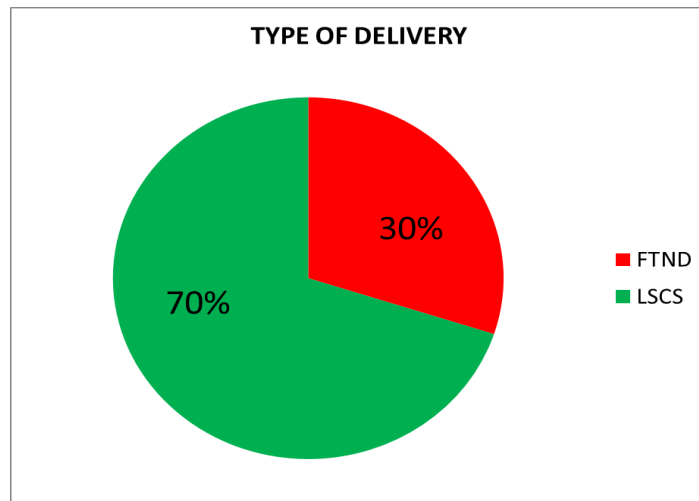
The population that was included was women who were primiparous and had undergone normal or C-section type of delivery. Women who were excluded were not given consent, women who were less than 21 years of age and if any co-morbidity like mental retardation and low IQ were present.

## III. Results:

Table no 1: Total number of participants on the basis of type of delivery.

SR. NO	TYPE OF DELIVERY	NO. OF PARTICIPANTS
1	FTND	30
2	LSCS	70

Graph no 1: Total number of participants on the basis of type of delivery.

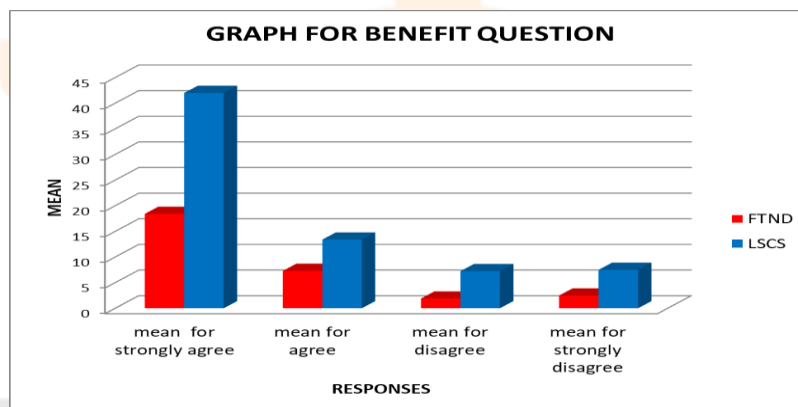


Inference: Above Graph shows that out of 100 participants, 70% women had LSCS type of delivery and only 30% women had FTND.

Table no 2: Comparison of Responses between FTND and LSCS participants

sr.no	type of delivery	mean for strongly agree	mean for agree	mean for disagree	mean for strongly disagree
1	FTND	18.41 ± 5.5	7.30 ± 3.5	1.9 ± 2.1	2.48 ± 3.0
2	LSCS	42 ± 13.3	13.4 ± 7.3	7.24 ± 5.2	7.5 ± 9.1

Graph no 2: Comparison of Responses between FTND and LSCS participants



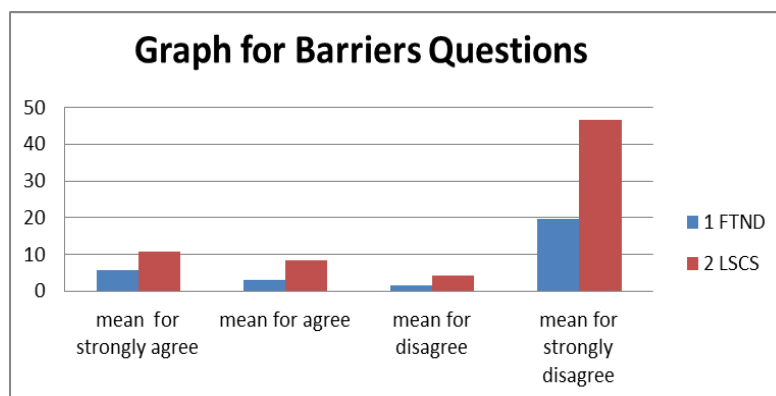
Inference: The Graph shows that FTND participants perceive exercise benefit less as compared to LSCS participants.

Table no 3: Comparison of Mean and Standard Deviation for each Response given by both participants.

Sr.no	type of delivery	mean ± SD for strongly agree	mean ± SD for agree	mean ± SD for disagree	mean ± SD for strongly disagree
1	FTND	5.71 ± 4.64	3 ± 2.77	1.71 ± 1.26	19.57 ± 5.27

2	LSCS	10.78 ± 8.22	8.42 ± 5.85	4.21 ± 3.66	46.57 ± 9.66
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Graph no 3: Comparison of Mean and Standard Deviation for each response given by both participants.



Inference: This Graph shows that FTND participants perceive exercise barriers less as compared to LSCS participants.

#### IV. Discussion:

This study is carried out with aim to study perception of exercise benefits and barriers in primiparous females. Physical activity throughout postpartum period (till 1 year) is particularly important to mother's health as pregnancy is a time when risk of becoming overweight or obese is high. Finding time to exercise can be a challenge, especially during the postpartum period when a woman's energy is limited and child care and household duties seem to take priority. During the Postpartum phase, women are susceptible to many physiological and mental changes, which lead to shifts in the dynamics of their lifestyles. Postpartum fatigue has been seen in women's after three months after childbirth. Its degree has been shown to vary according to the woman's age, education level, and income. The WHO (World Health Organization) Physical activity guidelines recommend that postpartum women engage in at least 150 minutes of moderate-intensity aerobic Physical activity per week [6]. Blum et al. found that postpartum women's engagement in Physical activity and sporting activities enhances their well-being. By identifying barriers and benefits that is faced in day-to-day life in post-partum female an increase exercise participation in women can be encouraged. And by this study many barriers can be identified that may be related to fatigue, lack of time, depression.

In this study, we included 100 primiparous women, 70% women had LSCS type of delivery and only 30% women had FTND as shown in graph 1. We found that on the basis of type of delivery the perception of exercise benefits and barriers they vary. Common indications for LSCS are CPD, meconium-stained liquor, fetal distress, breech presentations, twin pregnancy and preterm labor. And common indications for FTND are full-term pregnancies; vaginal delivery is indicated when spontaneous labor occurs or if amniotic and chorionic membranes rupture. In addition, for complicated gestations or for post-term pregnancies, induction of labor is indicated, which is also an indication for vaginal delivery.

In India, the C-section rates have increased which is a severe public health concern. One of the most crucial reasons for this growing rate of C-sections is the increase of institutional births and other attributable factors like unregulated health facilities, mainly private institutions and an increasing trend of women opting for it [3,4] These factors are regarded as non-clinical factors which need to be explored more to understand the increasing rates of caesarean deliveries [5] Lifestyle is an integral part of livelihood and with an increasing rate of obesity in women due to the lack of physical activities especially in the urban areas and due to dietary habits, they are prone to

caesarean deliveries. Moreover, the secondary infertile women on becoming pregnant fear normal delivery as it might lead to losing a chance of live birth. <sup>(7,8,9)</sup> It is also to be noted that increasing education and literacy among women has led to their apprehension towards normal delivery due to the fear of pain and fear of medical litigations. <sup>[14,15]</sup> Certain religions practice multiple births which is also an important non-clinical factor that needs to be addressed to reduce unnecessary caesarean sections. <sup>[16]</sup> India, being a diverse country, there have been quite wide differences across the geographies, religions, castes and other socioeconomic characteristics which eventually are correlated with women's education, literacy, livelihood and health. Education, awareness on caesarean deliveries and importance of institutional deliveries and increased healthcare access plays a significant role in the higher C-section deliveries.

Graph 2 shows as Comparison of Responses between FTND and LSCS participants for benefit type of questions. So, for FTND participants the mean for strongly agree response was  $18.41 \pm 5.5$ , agree was  $7.3 \pm 3.5$ , disagree was  $1.9 \pm 2.1$  and strongly disagree was  $2.48 \pm 3.0$ . For LSCS participants the mean for strongly agree response was  $42 \pm 13.3$ , for agree was  $13.4 \pm 7.3$  for disagree  $7.24 \pm 5.2$ , for strongly disagree was  $7.5 \pm 9.1$ . Similarly, Graph 3 shows as comparison of responses between FTND and LSCS participants for barrier questions. So for FTND participants, response for strongly agree was  $5.71 \pm 4.64$ , for agree was  $3 \pm 2.77$ , for disagree was  $1.71 \pm 1.26$ , for strongly disagree was  $19.57 \pm 5.27$ . The Graph 2 shows that FTND participants perceive exercise benefit less as compared to LSCS participants. And the Graph 3 shows that FTND participants perceive exercise barriers less as compared to LSCS participants.

From this study, we found that the barriers commonly faced by LSCS participants were too few places to exercise, places are too far away for exercise, Exercise is hard work for me, I am fatigued by exercise, and Exercise tires me. And common barriers faced by FTND participants were too few places to exercise, places are too far away for exercise, Exercise tires me, I am fatigued by exercise, Exercise facilities do not have convenient schedule for me, Exercise takes too much time for family responsibility. For LSCS participants perception of exercise benefits were Exercise improves overall body functioning for me, Exercise improves the way my body looks, Exercise improves my quality of work, Exercise allows me to carry out normal activities without becoming tired, Exercising increases my mental alertness, Exercising improves my self-concept, Exercising helps me sleep better at night, Exercise improves my flexibility, Exercise increases my stamina, Exercise increases my muscle strength, Exercise improves my mental health, Exercise decreases feelings of stress and tension for me. And most common benefits of exercise perceived by FTND participants were exercise improves overall body functioning for me, Exercise improves the way my body looks, Exercise allows me to carry out normal activities without becoming tired, Exercising helps me sleep better at night, Exercise increases my muscle strength, Exercise improves my quality of work.

Saligheh et al. identified the barriers to Physical activity as environment-related factors and personal factors related to the mother's own circumstances. The two most common barriers were lack of time and lack of access to appropriate and affordable exercise facilities. Although our results, in terms of Physical activity, agreed with the results of Saligheh et al., fatigue was not considered an impeding factor of Physical activity engagement. During the Postpartum phase, a mother's level of fatigue impacts her level of Physical activity. Postpartum fatigue and a general lack of energy have been reported to impede participation in leisure-time Physical activity. Our results revealed a negative relationship between fatigue severity and Physical activity, and the role of postpartum fatigue as a predictor of vigorous and moderate Physical activity. Regression analyses that focused on the predictors of Physical activity levels revealed that more severe postpartum fatigue is associated with lower engagement in moderate and vigorous Physical activity. Women who reported higher levels of fatigue demonstrated lower levels of Physical activity than women who reported lower levels of fatigue.

From this study we can state that the perception of exercise benefits and barriers in primiparous women depend on perception of women, Environmental factors, intrapersonal, interpersonal and organizational factor.

## V. Conclusion:

In this study we found that, the most common exercise beliefs during pregnancy were that exercise improves mental health, cardiovascular system, gives time for personal accomplishment, women's husband/partner and family members most strongly influenced their pregnancy and postpartum exercise behavior and women exercised more before they were pregnant than during pregnancy and postpartum. And many environmental, intrapersonal, and interpersonal barriers were identified they were too few places to exercise, places are too far away for exercise, Exercise is hard work for me, I am fatigued by exercise, and Exercise tires me, I am fatigued by exercise, Exercise facilities do not have convenient schedule for me, Exercise takes too much time for family responsibility. It is necessary to place greater emphasis on the role that Physical activity plays throughout the postpartum phase. Progressive fall in Physical activity can threaten a woman's health and increase the incidence of the woman's illness and disability throughout the postpartum period.

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