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Original Article

A QUASI-EXPERIMENTAL STUDY TO EVALUATE THE IMPACT OF EARLY AMBULATION ON INVOLUTION OF UTERUS AMONG POSTNATAL MOTHERS ADMITTED IN SELECTED HEALTHCARE INSTITUTIONS OF GURDASPUR, PUNJAB

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ABSTRACT

Introduction: In each woman's life pregnancy is a special, extraordinary, unforgotten experience and energizing time. The women are masterful and have sustaining forces to giving extension to future. Childbirth is an essential wellbeing related physiological cycle that a woman encounters during her regenerative life. A woman encounters an incredible feeling of fulfillment and bliss when her life can bring forth another sound life.¹

Material & Methods: A quasi experimental, pre-test post-test design was adopted under quantitative research approach to undertake this study. The population of the study was postnatal mothers admitted in selected healthcare institutions of Gurdaspur, Punjab. Total of 70 participants recruited with non-probability purposive sampling technique.

Results: The pre-test mean value in experimental group was 3 ± 1.169 and in control group was 2.97 ± 0 while the post-test mean at experimental group was 1.17 ± 0.453 and in control group was 1.83 ± 0.664 . The mean difference of experimental group 1.83 is higher than then the mean difference of control group 1.14, which suggested that early ambulation is an effective intervention to reach to uterus involution at 0.05 level of significance.

Conclusion: This study concluded that early ambulation is keeping positive impact on involution of uterus. Early ambulation helping the postpartum mothers to bring the uterus size back to non-pregnant stage in little rapid way compare to no intervention.

Keywords: Effectiveness; involution of uterus; early ambulation; postnatal mothers

INTRODUCTION

“Being a mother is learning about strengths you don’t know you had, and dealing with fears you never knew existed.”

Puerperium is a length begun from third phase of work to the month and a half after delivery. During the pregnancy time frame mother go through different changes of real and intellectually which will return to typical or like no pregnant state following a month and a half of delivery. The objective of care during the early postnatal period is to advance the physical prosperity of both mother and child, just as help the creating connection between the infant and their folks and family.²

Puerperium is the period following labor during which the body tissues, particularly the pelvic organs return around to the pre-pregnant state both anatomically and physiologically. The retrogressive changes are generally restricted to the regenerative organs except for the mammary organs which in actuality show highlights of movement. Puerperium starts when the placenta is removed and goes on for around a month and a half at the point when the uterus becomes relapsed nearly to the non-pregnant size.³

The involution of uterus is also one of important part of whole involution in postpartum mothers. Involution is the cycle whereby the genital organs return around to the state as they were before pregnancy. The lady is named as a puerperal. Quickly following conveyance, the uterus turns out to be firm and withdraw with substitute solidifying and mellowing. The uterus measures around $20 \times 12 \times 7.5$ cm³ (length, expansiveness and thickness) and weighs around 1,000 g. Toward the finish of about a month and a half, its estimation is practically like that of the non-pregnant state and weighs around 60 g. The placental site contracts quickly introducing a raised surface which measures about 7.5 cm and stays raised even at about a month and a half when it measures about 1.5 cm.^{3 & 4}

Naturally it takes its own time but there are some techniques which helps to bring it little faster such as yoga, massage etc. the early ambulation may be one of such factor which may help to bring it back to normal in little faster way.⁵

Mobilization is done earlier to facilitate the process of involution, this is because physiologically fundus uterine will decrease after delivery, but the process of

fundus uterine change will decrease rapidly if postpartum mothers immediately mobilize.⁶

Early ambulation has an alternate significance for involution of uterus, as it doesn't imply that the women start with all family unit exercises. Right on time, as characterized by different people, is from six hours to four or five days after conveyance. It ought to be accentuated that early ambulation unmistakably does not mean early resumption of common family obligations or others requiring exhausting activity.⁷

The early ambulation strategy should covers in improvement of muscle functioning and blood circulation as the involution of uterus is completely depends on three factors Muscles functioning, smooth blood flow and endometrium. There is marked hypertrophy and hyperplasia of muscle fibers during pregnancy and the individual muscle fiber enlarges to the extent of 10 times in length and 5 times in breadth.⁸ during puerperium, the number of muscle fibers is not decreased, but there is substantial reduction of the myometrium cell size. Hence the conditions which favor involution are efficacy of the enzymatic action and relative

anoxia induced by effective contraction and retraction of the uterus.⁹By reviewing the current evidences, researcher planned this study with aim to evaluate the impact of early ambulation on involution of uterus among postnatal mothers of selected healthcare institutions of Gurdaspur, Punjab.

MATERIALS &METHODS

To achieve the study objectives, the investigator have opted a most suitable research design as quasi-experimental two group pre-test post-test design under quantitative research approach. The population of the present study was postnatal mother and target population was postnatal mothers who had full term vaginal delivery within 48 hours. By using non-probability purposive sampling technique selected the 70 sample (randomly allocated to 35 in each experimental and control group). Pre-intervention assessment of uterine height was done in both experimental and control groups by tools designed for data collection. Application of abdominal massage as an early ambulation was done after uterine height assessment in experimental group for 10 minutes once a day for 4 consecutive days. After intervention in experimental group uterine

height was measured and in control group without application of early ambulation post assessment of uterine height was assessed.

RESULTS

Figure: 1 Column diagram showing the post-intervention (early ambulation) involution of uterus scores among experimental and control group of postnatal mothers

This figure communicated that the postnatal mothers in experimental group are experiencing much faster rate of involution of uterus compare to postnatal mothers of control group.

Figure: 2 Column diagram showing the mean pre-test and post-test scores on involution of uterus among experimental and control group of postnatal mothers.

The figure reveals that the respondent's mean in pre-test at experimental group was 3 and in control group were 2.97 which were reduced in post-test at 1.17 and 1.83 respectively to experimental and control group. The mean difference between experimental groups was 1.83 whereas in control group it was 1.14. The mean difference was higher in experimental group than the control group which is clearly indicating that early ambulation is an effective intervention to reach to uterus involution.

Wilcoxon Signed Rank Test applied to evaluate the significant level of experimental and control group and test values revealed as in experimental group 5.283 and in control group it was 5.468. These values calculated their p values as <0.001 which is much lesser than the assumed p value of 0.05. This has suggested that the involution of uterus is taking place

in both the groups but mean difference suggesting that in experimental group it is much faster means the early ambulation helping in faster involution of uterus. This allowed the research to reject the null hypothesis H_0 and accept the alternative hypothesis.

CONCLUSION

Researcher have gone through in-depth literature review with an intention to understand the problem in depth and to know the existing knowledge and work done under this line and what are the possibilities to bring new dimension to create new knowledge or finding out gap. Then meticulously planned this study to complete in systematic way.

The early ambulation is an effective method to bring the uterus size back to non-pregnant stage in a faster way than natural process. This method can be used by health professionals to attempt the faster recovery of postnatal mother.

This study has scientifically evident that the postnatal mothers who have received the early ambulation were experiencing reducing fundal heights in rapid way than the postnatal mothers of control group.

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