RESEARCH PAPER

"A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING ON KNOWLEDGE AND PRACTICES OF POSTNATAL EXERCISES AMONG POSTNATAL MOTHERS IN SELECTED MATERNITY HOSPITALS OF MUMBAI".

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ABSTRACT

Introduction: According to Anderson G.B, postpartum is a period of approximately 6 weeks following completion of the 3rd stage of labour. During this time a woman recovers from the stresses of pregnancy, delivery and the physiological adaptations that occurred during pregnancy; facilitating the restoration to non-pregnant state. The new mother usually assumes responsibility for taking care of herself and the baby. Factors like energy level, degree of comfort, health of the newborn and the mother contribute to the response for adjustment to postpartum period.

Aims of the Study: To assess the effectiveness of planned teaching on knowledge and practices of postnatal exercises among postnatal mothers in selected maternity hospitals of Mumbai".

Methodology: The study adopted a pre-experimental research design to evaluate the effectiveness of planned teaching on knowledge and practices of postnatal exercises among postnatal mothers. It was conducted in a state government hospital in Mumbai among 50 postnatal mothers selected using a non-probability convenient sampling technique. Data were collected through a semi-structured interview schedule and an observation checklist using interview and observation methods. The content validity of the tools was established by 14 experts from nursing, obstetrics, and physiotherapy, and their suggestions were incorporated while finalizing the instrument.

Results: The results included 50 postnatal mothers, most of whom were young, housewives, had primary or secondary education, belonged to joint families, and had normal deliveries. Most had not received prior information on postnatal exercises. Following the planned teaching programme, knowledge and practice scores improved significantly. Almost all mothers gained adequate knowledge about the importance, types, and precautions of postnatal exercises, and their practice scores also increased. The study concluded that the planned teaching programme was effective in improving both knowledge and practices of postnatal exercises.

Conclusion: Most of the samples were unaware of the postnatal exercises and had poor knowledge regarding postnatal complications. This study revealed that there was a highly significant difference in the knowledge of postnatal exercises in postnatal mother before and after planned teaching. There was evidence that planned teaching significantly improves the knowledge and performance. This emphasized that planned teaching plays important and beneficial role in reducing some of the postnatal complications which arise immediately after delivery during postnatal period and even later.

Keywords: assess, effectiveness, planned teaching, knowledge, practices, postnatal exercises, maternity hospitals.

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INTRODUCTION

A human life is engulfed with all sorts of feelings and emotions. But in females the postnatal period is the one where she is engulfed with happiness, hope, excitement, confusion and nervousness all at a time. During this time a woman recovers from the stresses of pregnancy, delivery and the physiological adaptations that occurred during pregnancy; facilitating the restoration to non-pregnant state. Extra care and encouragement provided by the health personnel contribute to the mother's response to her infant during this period. Support and care received by the mother in this period, would render

her for normal activity and ensure a safe postnatal period.[1] Postpartum period also called as postnatal period, lasts from delivery of the placenta until 6 weeks. Most of the physiological changes in pregnancy return to pre- pregnancy state by six weeks. However, many of the cardiovascular changes and physiological changes may persist for many months.[2]

An active lifestyle is important for maintaining and promoting health; it is also an essential treatment for chronic illness. Regular physical activity and exercise enhances the functioning of all body systems. Physical activity includes a combination of exercises that produce different physiological and psychological benefits, i.e. isotonic, isometric, and resistive isometric care. They are classified according to the type of muscles contractions involved.[3]

Barbara (2007), kegel exercises or pelvic muscle exercises were developed to strengthen the supportive pelvic floor muscles to control or to reduce incontinent urine loss. These exercises are also beneficial during pregnancy and postpartum. They strengthen the muscles of the pelvic floor, providing support for the pelvic organs and control of the muscles surrounding the vagina and urethra. [4]

Classes held in early pregnancy facilitate for advice and discussions related to rest and work, activities anticipated, postural changes and relief of common discomforts. Sessions covering relaxation, positions for labour and postnatal exercises are probably more appropriate during the third trimester of pregnancy. Moderate exercises during pregnancy have many advantages including improved cardiovascular fitness, limited weight gain, an improved attitude, mental state, an easier and less complicated birth and a speedy postnatal recovery.[5]

Need of the study:

In antenatal period changes in the reproductive tract i.e. uterus enlargement during pregnancy, involves stretching of marked hypertrophy of existing muscle cells; increase in the size of the uterine muscle cells. There is an increase in fibrous tissue and elastic. Changes in the abdominal wall, diastasis recti may occur as muscles (rectus) separate. Average weight gain 11 to12 kg in pregnancy.[6] Women may experience temporary or permanent distortion or trauma, to the pelvic floor and urethral anatomy as a result of child birth. After menopause, women experience decrease in estrogen levels, causing atrophy of pelvic floor structures and decreased urethral resistance. Pelvic floor injury during childbirth leads to incontinence. Postmenopausal women may experience incontinence when bladder pressure surpasses urethral resistance such as during coughing, sneezing laughing, and exercising.[7]

Fitzgerald M.P, et al (2007) study done in Loyola University Medical Center, to identify risk factors associated for anal sphincter tear during vaginal delivery shows, 797 primiparous women, 407 with a recognized anal sphincter tear and 390 without. Based on univariable analysis, a woman with a sphincter tear was more likely to be older, to be white, to have longer gestation or prolonged second stage of labor, to have a larger infant (birth weight/head circumference), or an infant who was in occiput posterior position, or to have an episiotomy or operative delivery. [8]

Eason E, et al (2002) conducted a study on anal incontinence after childbirth which included 949 pregnant women who gave birth in 5 hospitals in 1995/96 in the province of Quebec. It concluded that, anal incontinence is associated with forceps delivery and anal sphincter laceration. Anal sphincter laceration is strongly predicted by first vaginal birth, median episiotomy, and forceps or vacuum delivery but not by birth weight or length of the second stage of labour.[9]

The pressure of taking care of a newborn and managing the house leaves the mother, mentally and physically drained, resulting in ignorance about the post natal exercises and its importance and complications. Nurses are busy with their routine work and thus have little time for caring and teaching the mothers. [10]Though, planned teaching is not carried out, incidental teaching and advices are given. Based on the above findings, the researcher was inquisitive to a plan teaching, on post natal exercises that will increase knowledge and practices in postnatal mothers. So the topic was chosen for her research.

MATERIALS AND METHODS

The study included 50 postnatal mothers, the majority of whom were below 25 years of age, had primary or secondary education, were housewives, belonged to Hindu religion, consumed a vegetarian diet, and lived in joint families. Most were primiparous, had normal previous and present deliveries, and had not received prior information regarding postnatal exercises.

The findings demonstrated a marked improvement in both knowledge and practice following the planned teaching programme. In the post-test, 80–100% of mothers were aware of physiological changes during pregnancy, postnatal complications, the importance, types, and precautions of postnatal exercises, while all participants agreed that postnatal exercises help maintain health and fitness. Practice scores also improved, with the mean demonstration score increasing from 20.24 in the first observation to 26.8 in the second observation. Knowledge was

significantly associated with the number of days after delivery but not with age, education, or parity. Overall, the planned teaching programme was effective in improving the knowledge and practices of postnatal exercises among postnatal mothers.

RESULTS

SECTION-I

This section deals with analysis of demographic data of mothers under study

N=50

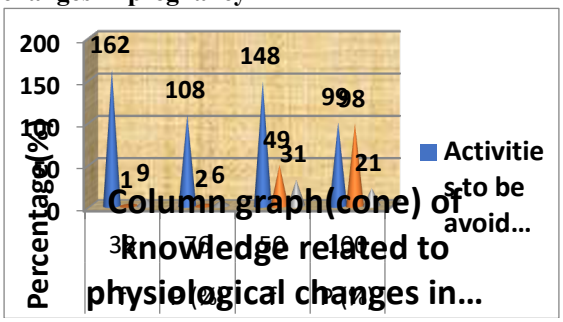
SR. NO	PERSONAL DATA		FREQUENCY	PERCENTAGE
1.	Age (Years)	Below 25 26 – 30 31 – 35 36 and above	23 21 05 01	46 42 10 02
2.	Education	Illiterate Primary Secondary Graduate and above	09 16 16 9	18 32 32 18
3.	Religion	Hindu Muslim	30 20	60 40
4.	Occupation	Unemployed Employed	32 18	64 36
5.	Diet	Vegetarian Mixed	38 12	76 24
6.	Family Type	Joint nuclear	45 05	90 10
7.	Family Income	< Rs. 200/- Rs. 200/- - Rs. 4000/- Rs.4000/- - Rs. 6000/- >Rs.6000/-	08 23 06 13	16 46 12 26

The demographic profile of the 50 postnatal mothers showed that most participants were below 25 years of age (46%), had primary or secondary education (64%), belonged to the Hindu religion (60%), and were unemployed (64%). The majority consumed a vegetarian diet (76%) and lived in joint families (90%). Regarding family income, most participants (46%) had a monthly income between Rs. 2000 and Rs. 4000. Overall, the findings indicate that the study participants were predominantly young, unemployed women from joint families with primary or secondary education.

SECTION II –

Part I – A- Knowledge related to physiological changes in pregnancy

Fig. No.1 Knowledge related to physiological changes in pregnancy



The graph shows that the majority of postnatal mothers had good knowledge regarding activities to be avoided for at least six weeks after delivery (99%) and knowledge of puerperium (98%). However, awareness regarding the aspects to be included in postnatal care was comparatively lower (21%). Overall, the findings indicate that while mothers had good knowledge in some areas of postnatal care, additional education is needed to improve their understanding of the complete aspects of postnatal care.

B. Knowledge related to concept of postpartum care

- It was observed that only 108 percent were aware about activities that should be avoided at least for 6 weeks i.e. lifting heavy weight, sewing work on the machine; going out of the house in pre test, but in post test 99 percent mothers said it is to be avoided. A remarkable increase was observed.
- It was noticed that regarding meaning of puerperium 2 percent were aware in per test, while in post test 98 percent. It was observed that only 6 percent of the samples were aware of the correct answers of the aspects of postnatal care in pre test and 21 percent in post test. Pre test results showed 27 percent and 83 percent in post test, regarding effects of aspect on postnatal care.

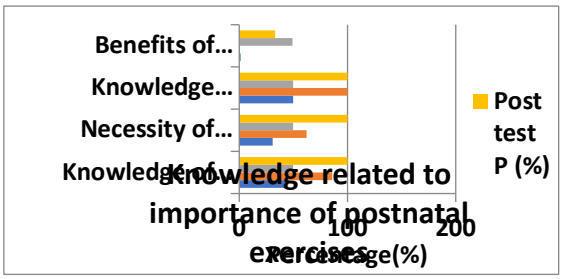
C- Knowledge related to postnatal complications.

It was observed that 11 percent of the samples knew, about the complications which occur during postnatal period in pre test. Post test results showed that 115 percent of the samples are aware of it. 2

percent samples said, they were not aware about the complications of leg during postnatal period in pre test, while 90 percent said they knew in post test. It was observed that 4 percent sample answered correctly about knowledge regarding low back pain during postnatal period. Post test results showed 88 percent ignorance.

PART-II = Knowledge related to importance of postnatal exercises

Fig.No.2 Data related to knowledge related to importance of postnatal exercises



86 percent samples' believed that exercises keep healthy and fit in life during pre test whereas, 100 percent believed in post test score. Regarding necessity of postnatal exercises 62 percent mothers thought exercises are required in postnatal period in per test, while in post test score was i.e. 100 percent. Even though 100 % sample knew when to start doing the postnatal exercises after delivery post score was also 100 %.

DISTRIBUTION OF SAMPLE WITH REGARD TO THEIR KNOWLEDGE AND PRACTICES RELATED TO POSTNATAL CARE.

N=50

Sr.No.	Knowledge related to concept of postpartum care		Pretest		Post test	
		Max score	F	P (%)	F	P (%)
1	Duration of postnatal period.	1*50=50	38	76	50	100
2	Activities to be avoided at least for 6weeks.	3*50=150	162	108	148	99
3	Knowledge of Puerperium	1*50=50	1	2	49	98
4	Aspects to be included in postnatal care.	3*50=150	9	6	31	21
5	Areas to be taken care of self care	3*50=150	41	27	125	83

The findings showed a marked improvement in mothers' knowledge of postpartum care after the planned teaching programme. In the post-test, all mothers (100%) correctly identified the duration of the postnatal period. Knowledge regarding activities to be avoided for at least six weeks (99%), puerperium (98%), and self-care practices (83%) also improved considerably. Although knowledge regarding the aspects to be included in postnatal care increased, it remained comparatively lower (21%). Overall, the results indicate that the planned teaching programme was effective in enhancing mothers' knowledge of postpartum care.

DISTRIBUTION OF SAMPLE WITH REGARD TO THEIR KNOWLEDGE AND PRACTICES RELATED TO POSTNATAL EXERCISES.

Sr. No.	Knowledge related to precaution to be taken before and after the postnatal exercises		Pretest		Post test	
		Max score	F	P (%)	F	P (%)
1	Safe place for postnatal exercises.	1*50=50	31	62	50	100
2	Emptying bladder	1*50=50	42	84	50	100

	before exercise					
3	Knowledge of exercising after meals	1*50=50	35	70	36	72
4	Necessity to empty bowel before exercise.	1*50=50	22	44	38	76
5	Necessity to consult a doctor or nurse before exercising.	1*50=50	29	58	46	92
6	Need to give breast feeding before exercising.	1*50=50	43	86	50	100
7	Prevention of dehydration by drinking fluids.	1*50=50	8	16	48	96
8.	Knowledge to stop the exercises and consult with doctor.	3*50=150	33	22	47	31
9	Resting after completion of exercises for 10 minutes.	1*50=50	13	26	49	98

In pre test 62 percent knew safe places for postnatal exercises while 100 percent knew in post test. 84 percent were aware about emptying bladder before exercise in pre-test, wherein 100 percent knew in post-test. Knowledge of exercising after meals was known to 70 percent in pre test and 72 percent in post test. Necessity to empty bowel before exercise was known to 44 percent and 76 percent in post test., Necessity to consult a doctor or nurse before exercising was felt by 58 percent and 92 percent post test., Need to give breast feeding before exercising was familiar in 86 percent in pre-test, and 100 percent in post-test. Regarding prevention of dehydration by drinking fluids only 16 percent were aware in pre-test and 96 percent in post test. 22 percent had the knowledge to stop the exercises and consult with doctor in pre test and 31 percent in post test. Also 26 percent knew about resting after completion of exercises for 10 minutes in pre test and 98 in post-test.

SECTION III

COMPARISION BEWEEN TWO OBSERVATIONAL CHECKLISTS

N=50

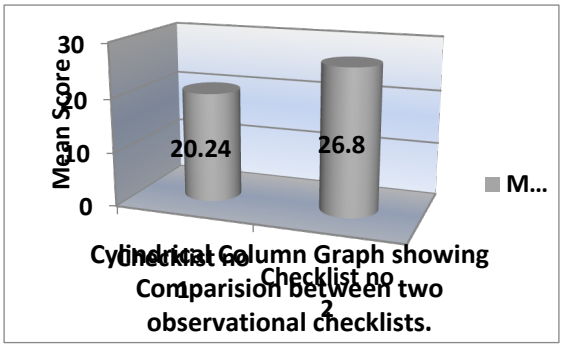


Fig. 1: Distribution of knowledge and practice scores of checklist no.1 and checklist no.2 by't' test.

The findings showed a significant improvement in the demonstration of postnatal exercise practices after the planned teaching programme. The mean practice score increased from 20.24 ± 3.94 in Checklist 1 to 26.80 ± 1.23 in Checklist 2, indicating that the mothers performed postnatal exercises more correctly following the intervention. The lower standard deviation in Checklist 2 also suggests greater consistency in practice among the participants.

SECTION-IV

Distribution of samples percentage of knowledge score with percentage of practice score by't' test

N=50

Score Type	Mean	N	Std. Deviation	Std. Error Mean
Mean Knowledge Score	85.27	50	4.666282	0.659431
Mean Practice Score	95.71	50	4.388941	0.62069

The findings showed that the mean knowledge score of the participants was 85.27 ± 4.66, while the mean

practice score was 95.71 ± 4.39. The higher mean practice score compared to the knowledge score indicates that the participants demonstrated better practices than knowledge. The relatively low standard deviations suggest that the scores were consistent among the participants.

DISCUSSION

The present study was conducted to assess the effectiveness of a planned teaching programme on the knowledge and practices of postnatal exercises among postnatal mothers. The findings demonstrated that the planned teaching programme was effective in improving both the knowledge and practice of postnatal exercises.

The present study showed a remarkable improvement in knowledge following the planned teaching programme. After the intervention, all mothers correctly identified the duration of the postnatal period (100%), while knowledge regarding activities to be avoided during the first six weeks (99%), puerperium (98%), and self-care practices (83%) increased substantially. Although knowledge regarding the components of postnatal care also improved, it remained comparatively lower (21%), indicating the need for continued education. These findings are consistent with the study by Shah et al.**,** which also reported a significant increase in mothers' knowledge after the educational intervention, with 80–100% of participants demonstrating adequate knowledge regarding postnatal care and exercises.

The practice findings of the present study also indicated a significant improvement after the intervention. The mean practice score increased from 20.24 ± 3.94 during the first observation to 26.80 ± 1.23 during the second observation, demonstrating improved performance of postnatal exercises. Similarly, Shah et al**.** reported that mothers' practice scores improved significantly after planned teaching, with practice improvements being greater than knowledge gains. This suggests that practical demonstrations combined with teaching sessions effectively enhance mothers' ability to perform postnatal exercises correctly.

Overall, the findings of the present study support the effectiveness of planned teaching programmes in improving both knowledge and practices related to postnatal exercises. These results emphasize the importance of incorporating structured health education into routine postnatal care to promote maternal recovery, prevent complications, and encourage healthy postnatal practices.

CONCLUSION:

The various findings of the study have shown that most of the samples were unaware of the postnatal exercises. Poor knowledge was observed about the concept of postpartum care, postnatal complication and type of importance of postnatal exercises. This study revealed that there was significant difference in knowledge regarding before and after planned teaching. It was evident that planned teaching significantly improves the knowledge regarding postnatal exercises among postnatal mothers. This emphasized that planned teaching plays an important and beneficial role in reducing postnatal complications. Hence, nurses must take an attempt to provide health education to such types of patients that reduce the early and late postnatal complications. It was noticed that the samples had deficit knowledge in certain areas in the postnatal exercises like advantages of postnatal exercises. The samples were eager to get more information regarding prevention of urinary incontinence, some samples were also eager to give post test to find their own knowledge. Thus, this planned teaching programme was found to be effective in increasing the knowledge of the patients to reduce the postnatal complications and keep mother fit in life.

DECLARATION BY AUTHORS:

Ethical Approval: The study was approved by the institutional ethics committee of Sir J.J Group of Hospitals College of Nursing, Mumbai. The study participants were briefed about the purpose and nature of the study and written informed consent was obtained before data collection.

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Conflict of Interest: The authors declare no conflict of interest.

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