A Study to Assess the Knowledge of Post-Natal Mothers Regarding Post-Natal Exercises

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Abstract

Postpartum exercises (PPE) are critical for the involution process past delivery. PPE affects the physical and psychological wellbeing of post-natal mothers. Clinical observation shows a lack of exercise in post-natal units. Physical exercise during post-natal period is beneficial to mothers. Exercise done after delivery is called post-natal exercise. Post-natal exercise helps to improve the muscle tone which is stretched during pregnancy and labour. Post-natal exercise offers a whole range of benefits for the mother to speed up the recovery process and build strength. This study sought to assess the knowledge of post-natal mothers regarding post-natal exercise and to find out relationship between knowledge of post-natal mothers regarding post-natal exercise with selected demographic variables. A descriptive approach was used for this study; the sample size was 60 post-natal mothers admitted in the post-natal ward of Chain Rai Govt. Distt Hospital Hardwar. Non-probability convenient sampling technique was used to select the sample and data were collected using structured Knowledge Questionnaire. Majority of the post-natal mothers (68.33%) had inadequate knowledge; 28.33 percent post-natal mothers had moderate knowledge and lowest (3.33%) post-natal mothers had adequate knowledge regarding post-natal exercise.

Keywords: Post-natal exercise, Post-natal mothers, Knowledge of post-natal mothers

Becoming a mother is an important stage in every woman's life. Most different period for women, their growth into parenthood, is precisely this post-partum period. First time mothers may feel anxious about how they are going to cope with looking after themselves and their newborn.

After the delivery of placenta mother enters into the postpartum period. Overall duration of the postpartum period is 6 weeks where all the system of women's body reverts back to the pre-pregnant stage. Post-natal exercise helps to improve the muscle tone which is stretched during pregnancy and labour. Post-natal exercise will speed up the recovery process and build necessary strength. Exercise would give energy and help to drop a few pounds. It will keep the women to stay fit. Specific exercises and postures can help the women to adapt to the physical changes in her body during the child bearing year. The post-natal work out helps the post-natal mother adapt the body to a new life develop the strength to lift & hold the body effortlessly. With exercise, pelvic floor muscles are strengthened so one can cough, sneeze & stretch muscles. The perfect post-natal workout will allow getting stronger & adapting to the changing needs.

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Need for the study:

The researcher reviewed the published and unpublished literature. On the basis of clinical experience it was found that everybody has focus on the antenatal exercises but there are few who know about post-natal exercise. So, the researcher was curious how much population have knowledge about the post-natal exercises.

About two-third (61.0%) of the participants were not aware that they could undertake physical exercise to enhance postpartum health and so for less than three days/week and 89 percent of the women did not belong to 109 (47.8%) were not engaged in any exercise. Those who exercised did any exercise support group and self-efficacy was significantly programme, age employment, work house and number of pregnancies. Associated with being in an exercise.

Pregnancy & delivery is an important life change where postpartum exercises are shown to create a more relaxed mother-child relationship. Half of the mothers (52%) had moderately adequate knowledge, 28 percent mother had inadequate knowledge and lowest (20%) mothers had adequate knowledge regarding post-natal exercise.

It is estimated that between 65 percent and 85

percent of world's population fail to take enough exercise. There was inadequate knowledge of post-natal exercise among post-natal mothers. The 2018 update to the US Department of Health and Human Services Physical Activity Guidelines for Americans recommend at least 150 minutes of moderate intensity aerobic activity per week during pregnancy and the postpartum period.

Objectives

The study was set out with twin objectives:

1. To assess the knowledge of post-natal mothers regarding post-natal exercise.
2. To find out relationship between knowledge of post-natal mothers regarding post-natal exercise with the selected demographic variables.

Assumptions

The study assumes that:

- Post-natal mothers have some knowledge regarding post-natal exercise.
- Post-natal mothers will be co-operate with us.
- Urban post-natal mothers have more knowledge regarding post-natal exercise than rural post-natal mothers.

Delimitations of the Study

- Assessment of knowledge is limited to a written response obtained through a structured knowledge questionnaire.
- The study was restricted to post-natal mothers 18-35 years and it was limited to 60 samples.

Review of literature

A Descriptive cross-sectional study was conducted by Sundaramurthy et al (2020) on knowledge, attitude and practice of post-natal exercises among post-natal women from a tertiary care centre, South India. Total 160 post-natal women were enrolled with convenient sampling technique. Structured questionnaire was used to collect the data. Result of study shows that 58.8 percent of the study participants revealed that health care professionals were the commonest source of information. More than half of them had adequate knowledge but still many were not aware of full benefits of post-natal exercise as only 3-5 percent aware of other benefits like prevention of urinary incontinence. 98.8 percent of the women's felt post-natal exercise is essential and 62.5 percent felt household work hinders them. No significant correlation was found between socio-demographic characters and knowledge, attitude and practice of post-natal exercises.

A descriptive study to assess the knowledge, attitude and practice among post-natal mothers regarding post-natal exercise in Tamil Nadu, India by Mageshwari et al (2020), data was collected from 73 samples by self-administered questionnaire. The result showed that in knowledge, 12.3 percent of the mothers had adequate knowledge, 52 percent had moderate knowledge and 35.6 percent had inadequate knowledge. In practice, 1.3 percent of mothers had adequate practice, 38.3 percent had moderate practice and 60.2 percent had inadequate practice. In attitude, 60.2 percent of mothers had negative attitude, 39.7 percent had undecided attitude and none had positive attitude regarding post-natal exercise.

A cross-sectional study by Ashok & Mohamed (2019) on knowledge, practice and attitude of post-natal mothers towards post-natal exercises in a rural area of Tamil Nadu. Data were collected through semi structured pretested questionnaire which was distributed to mothers during a period of one month showed that 22 percent of participants had adequate knowledge on post-natal exercise. 52 percent had a positive attitude towards post-natal exercise and 58 percent practiced post-natal exercises. A strong association has been found between knowledge, attitude, practice and some demographic variables (education, occupation and socioeconomic status).

A study was conducted by Kinjal et al (2017) on knowledge of post-natal mothers regarding post-natal exercises. Total 30 post-natal mothers were selected by using non probability sampling technique. Structured knowledge questionnaire was used to assess the knowledge. Result showed that the pre-test, 23.34 percent post-natal mothers had poor knowledge, 76.66 percent were having average knowledge, no post-natal mothers were having good knowledge and very good knowledge, whereas in the post-test 66.66 percent post-natal mothers were having average knowledge, 33.34 percent had good knowledge, and no post-natal mother was having poor and very good knowledge. The mean difference between pre-test and post-test knowledge score was significant ($t=7.10$, $p<0.05$) level. There was no significant association between the post-test knowledge score and selected demographic variables i.e. age, education status, number of child. There was significant association between the post-test knowledge score and occupation.

A quantitative, non-experimental, descriptive study was conducted by Mbombi et al (2017) on Puerperas' knowledge regarding postpartum exercises in a tertiary hospital in the Capricorn District of Limpopo Province, South Africa. Probability random sampling was used to ensure that all post-natal women had an equal opportunity to be selected.

The sample comprised 50 post-natal women who were admitted to a tertiary hospital in the Capricorn District, Limpopo, South Africa. Close-ended questionnaire was used to collect the data. Result of study shows that 68 percent of post-natal women participating in the study lacked knowledge regarding PPE, whereas 72 percent of post-natal women were not exercising due to perineal pains, discomfort, exhaustion and a lack of educational programmes at clinics and hospitals. The study showed that there was a high rate of ignorance among post-natal women regarding the importance of PPE.

Methodology

Research approach: Descriptive approach was adopted for this study.

Research design: Non-experimental research design was adopted.

Study setting: The study was conducted in Chain Rai Government District Hospital Haridwar. The rationale for selecting the hospital was: (a) Familiarity with setting, (b) Availability of subjects, (c) Feasibility of conducting the study.

Administrative approval as necessary, was sought.

Study population: The target population of study was post-natal mothers admitted in Chain Rai Government district hospital Haridwar.

Sample and sampling technique: Post-natal mothers who were admitted in Chain Rai Government District Hospital Haridwar, within the time period of 7 days only; 95 post-natal mother were available and from 95 only 60 were willing to participate in this study. To increase the accuracy rate, researcher selected each and every respondent of the population as the study sample.

Sampling technique: Non-probability convenient sampling technique was used to select the sample for the study

Sampling criteria: Post-natal mothers admitted in chain Rai Government District Hospital Haridwar, in age group 18-35 years, able to read, write and understand Hindi and post-natal mothers available at the time of data collection were included.

Post-natal mothers above 35 years and those attending OPD were excluded.

Data collection

After getting administrative approval and clearance from ethical committee, written permission was taken from principal of Shri Swami Bhumanand College of Nursing. Researcher approaches the participants by convenient non-probability sampling. Purpose and need for the study was explained to the participants and their consent was taken. Tool was administered to 60 antenatal women; time duration for data collection was 7 days.

Data collection procedure: Duration of data collection was one week. A total sample was 60. Duration of data collection per participants was 10 minutes and the total duration was 6 hours.

Description of tool

The tool for the present study consisted of the following parts.

Part 1 - It was demographic profile which consisted of age, education, number of children, previous exposure to post-natal exercise, occupation, socio-economic status, residence, type of family.

Part 2 - It consistsed of 26 multiple choice questions about post-natal exercise.

Table 1: Scoring pattern

S.No.	Level of Knowledge	Range	Percentage
1	Inadequate	0 – 8	0-39
2	Moderate	9– 17	40-65
3	Adequate	18- 26	66-100

Scoring of Tool

A structured knowledge questionnaire was used to assess the level of knowledge of post-natal mother regarding post-natal exercises.

This section consisted of 26 multiple choice questions. Each question had four options. Instructions were clearly written to choose the best option. Each corrected response item was scored as '1', otherwise score was '0' (Table 1).

Plan for data analysis

The data collection through self structured questionnaire was recorded and analysed on the basis of objective by using descriptive statistics like mean, frequency, percentage. All information was put on a master sheet for tabulation. After tabulation, analysis was done by using percentage as well as frequency and the values were interpreted.

Frequency and percentage analysis was used to describe the demographic characteristics of post-natal mother. The chi square was used to determine the association between pre-test knowledge with their selected demographical variables.

Results

Table 2 shows the demographic distribution of subjects. Data in Fig 1 shows that majority (41) mothers were having inadequate knowledge about post-natal exercise, 17 mothers were have moderate knowledge and only 2 mothers were having

adequate knowledge about post-natal exercise.

Association of knowledge score with demographic variables

The association of knowledge score with demographic variables was calculated by chi square; there was only association of knowledge of post-natal exercise with numbers of children, residence area and type of family.

Table 3 shows that the chi square value is significant at 0.05 level. Thus there is association between level of knowledge and number of children of post-natal mothers.

Table 4 shows that the chi square value is significant at 0.05 levels. Thus there is association between level of knowledge and residence of post-natal mothers

Table 5 shows that the chi square value is significant at 0.05 levels. Thus there is association between level of knowledge and type of family of post-natal mothers.

Table 2: Demographic distribution of subjects (N=60)

Demographic variables		Frequency (f)	Percentage (%)
Age (years)	18-23	33	53.33
	24-29	18	30
	30-35	7	11.67
	Above 35	32	5
Education	Primary	23	38.33
	High school	16	26.66
	Secondary	20	33.33
	Graduation	1	1
Occupation	Housewife	45	75
	Private employment	5	8.33
	Self employment	8	13.33
	Govt. employment	2	3.34
No. of children	1	20	33.34
	2	28	46.66
	3	9	15
	4 or above	3	5
Residence	Rural	31	51.66
	Urban	29	48.34
Family type	Nuclear	31	51.66
	Joint	28	46.67
	Extended	1	1.67
Previous exposure	Yes	19	31.67
	No	41	68.33
Source of information	From media	26	43.34
	From nurse	8	13.33
	From doctor	21	35
	Others	5	8.33

Discussion

The study reveals that the post-natal mothers had inadequate level of knowledge regarding post-natal exercises evident from the assessment of knowledge. Result showed that the majority of the post-natal mothers (68.33%) had inadequate knowledge, 28.33 percent post-natal mothers had moderately knowledge and lowest (3.33%) post-natal mothers had adequate knowledge regarding post-natal exercise.

The result is supported by the findings of Mbombiet et al (2017), who showed that 68 percent of puerperas participating in the study lacked knowledge regarding PPE, whereas 72 percent of puerperas were not exercising due to perineal pains, discomfort, exhaustion and a lack of educational programmes at clinics and hospitals.

Recommendation

- The study can be repeated on large sample, which would help generalise its findings.
- Conduct a study on benefits of post-natal exercises.
- Conduct health education programmes in in-patient and outpatient maternity department regarding antenatal and post-natal exercise.

Implications

Nursing education: Implication of obs & gynae nursing course should emphasise on developing student ability to educate mothers regarding post-natal exercises. Students should have apportunity to plan health education on post-natal exercise. Students may give demonstration to mothers on post-natal exercises.

Nursing practice

- Nurses have an important role in primary, secondary, and tertiary prevention of post-natal complications.
- Nurses need to develop health education material like self instructional model, posters, charts, & pamphlets. Health education program should be organised on regular basis in out-patient and in-patient departments. Posters and charts can be displayed and pamphlets & leaflets distributed in the OPD of hospitals.

Nursing administration: Nurse's administration should take the responsibilities to update the knowledge of nursing staff; in-service programmes must be conducted to prepare nurses developing health education material for patient and family.

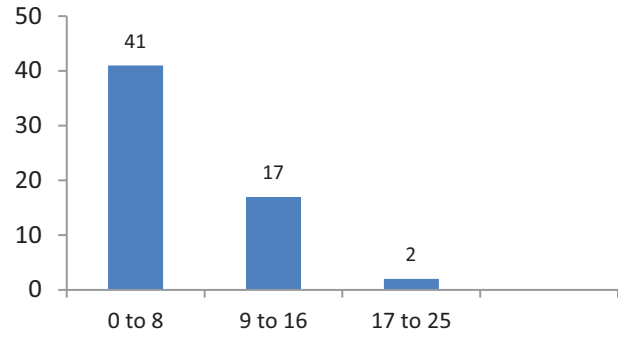

Fig 1: Distribution of subjects by level of knowledge

Nursing research: There is a need to conduct further research regarding post-natal exercise among the post-natal mothers. There is a need to develop better methods of patient education and better practice of nursing care that fit on the new technology.

Conclusion

The post-natal exercises and physical activities have very important role to play in postpartum period of mothers and the timely preventive measures that need to taken to improve the health of mothers. The care giver should create awareness among mothers, and the other health care professionals about the importance of post-natal exercises in treating post-natal complications.

From the result of the study, it can be interpreted that most of the mothers had lack of knowledge and had inadequate practice of post-natal exercises. Therefore, health awareness programme on post-natal exercises should be conducted by the health personnel to improve the knowledge and practice among the mothers which will contribute positively to maintain health status of the mothers.

It was concluded that the post-natal exercises is most important and effective in reducing the chance of developing obesity, postpartum psychosis, strengthening pelvic floor muscles etc. Majority of mothers were having poor knowledge about the post-natal exercise. Thereby need to provide information regarding post-natal exercise.

Table 3: Association of knowledge score with number of children

Demographic variable		Level of knowledge			Degree of freedom	Table value 'p'	Chi square	Level of significance
		Inadequate	Moderate	Adequate				
No. of children	01	05	14	01	6	12.59	17.493	S*
	02	07	21	0				
	03	05	02	01				
	Above 3	0	04	0				

Table 5: Association of knowledge score with type of family

Demographic variable		Level of knowledge			Degree of freedom	Table value 'p'	Chi square	Level of significance
		Inadequate	Moderate	Adequate				
Type of Family	Nuclear	05	26	02	4	9.49	33.602	**S***
	Joint	11	15	0				
	Extended	0	01	0				

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