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A Study to assess the knowledge, practice and attitude regarding postnatal exercises among postnatal mothers in selected community health center, Doiwala, Dehradun, Uttarakhand

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ABSTRACT

Used quantitative research approach and select 130 PM through total enumeration sampling technique who had visit obstetrics & gynecology & pediatric OPD of CHC Doiwala, Dehradun. Result showed that 96.93% of PM had moderate knowledge score. In area wise knowledge score the highest mean score in the area of deep abdominal breathing exercise and lowest mean score is in the area of leg raising exercise. In self- reported practice checklist the result shows that 93.84% of PM had average practice score. Highest practice score of PE was in the area of knee rolling exercise and lowest practice score of PE in the area of pelvic floor exercise. In attitude scale the result shows that the 62.3% of PM had favorable score. Weak positive correlation between knowledge score and practice score, practice score and attitude score, knowledge score and attitude score. Hence the hypothesis is partially accepted. The result showed that there was significant association between knowledge score with their selected demographic variables (occupation, area of living). Hence the hypothesis is partially accepted and is no significant association between practice score and attitude score with their selected demographic variables Hence the hypothesis is rejected.

Key words

Postnatal mothers (PM), Postnatal exercises (PE)

1. INTROCUCTION

Postnatal period is a joyful experience, every woman wants to enjoy with the baby.¹ Postnatal period commences immediately after childbirth & continued for 6-8 week. During this period, uterus and other body organs returns to the pre pregnant state.²

As stated by World Health Organization, postnatal mothers should engage in postnatal exercises for 30-45 minutes daily.³ After 2 days following delivery, these exercises must commence twice daily for about 2 months.⁴ In this period physical exercises are the most important part which can be done by the women to regain ideal working of all systems & also to avoid any complications which can occur.

A good exercise program gives strength to the postnatal mothers, it also tackles with multiple complications such as backache, bladder problems and bowel incontinence, helps to get back to the shape of prepregnant state, prevent DVT, prevent psychological disorders & helps mother to relax and get comfortable.⁵

PE assists with building up of core muscles, decreasing risks of back injuries and also in minimizing the risks of prolapse, thrombosis and other complications.⁶ A survey shows that urinary incontinence occurred at least daily in (3.11%) of women after normal vaginal delivery.⁷ According to national prevalence of obesity 79 % of postnatal mothers suffer from obesity after delivery. Researcher has experienced during hospital posting in postnatal ward and O.P.D that the postnatal mothers were not aware and having doubts regarding PE.



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PROBLEM STATEMENT

A Study to assess the knowledge, practice and attitude regarding postnatal exercises among postnatal mothers in selected community health center, Doiwala, Dehradun, Uttarakhand.

2. REVIEW OF LITERATURE

Rabia Majeed et.al (2022) Conducted a cross sectional research to evaluate the practice, knowledge and also the attitude among women regarding postnatal exercises in Punjab Social Security Hospital. 120 postnatal mothers were included where 53.3% of had undergone LSCS. The result of the study was satisfactory as 74.2% mother's had positive attitude and accepted that uterine prolapse can be prevented through postnatal exercises. While, 99.2% agreed that postnatal exercises are necessary and had significant association between practice, knowledge, and attitude.⁸

Cynthia L. Battleet. Al (2020) conducted a small survey and using descriptive statistics and spss 22.0, on 300 perinatal women's undergoing psychiatric treatment. Among surveyed women's, 25% reported contemporary exercise, and only <9% reported activity with the current exercise patterns. While, only 87% reported interest in participating.⁹

Humphrey Okeke and Lotachukwu Ifediora (2020) conducted a cross-sectional descriptive study design in Enugu Metropolis, Nigeria with 252 women's and prepared a structured questionnaire. Results show that only 38.37% out of total were practicing the exercise. Major reasons for noncompliance by the respondents include forgetting the exercise practice (40.4%), being too tired (35.9%), and being too busy (18.0%).¹⁰

Vijaya Rani M et.al (2016) Perform a experimental study in Iran. 50 postnatal mothers selected using random sampling technique. Results showed that individuals in the control group had inadequate practice with mean of 16.33%, while in experimental group there was a significant mean practice of 39.84%.¹¹

3. OBJECTIVES

1. To assess the knowledge, practice and attitude of postnatal mothers regarding postnatal exercises.
2. To find out the correlation between knowledge and practice score, practice and attitude score, knowledge and attitude score of postnatal mothers regarding postnatal exercises.
3. To find the association between knowledge score, practice score and attitude score with their selected demographic variables.

4. HYPOTHESIS

The hypothesis would be measured at the level of $p < 0.05$ level of significance.

1. **H1-** There would be significant correlation between knowledge score and practice score of postnatal mothers regarding postnatal exercises.
2. **H2-** There would be significant correlation between practice score and attitude score of postnatal mothers regarding postnatal exercises.
3. **H3-** There would be significant correlation between attitude score and knowledge score of postnatal mothers regarding postnatal exercises.
4. **H4-** There would be significant association of knowledge score with their selected demographic variables of postnatal mothers regarding postnatal exercises.



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5. **H5-** There would be significant association of practice score with their selected demographic variables of postnatal mothers regarding postnatal exercises.
6. **H6-** There would be significant association of attitude score with their selected demographic variables of postnatal mothers regarding postnatal exercises.

5. Material and methodology

The study aim to assess the knowledge practice and attitude regarding postnatal exercises among postnatal mothers in selected CHC, Doiwala, Dehradun, Uttarakhand. A non-experimental quantitative research approach was chosen for the current study and the research design is descriptive research design. The Study variables is knowledge, practice and attitude and the research setting was obstetrics & gynecology OPD & pediatric OPD at CHC, Doiwala Dehradun, Uttarakhand. Total sample size was 130 postnatal mothers who had visited obstetrics & gynecology OPD at the time of data collection.

SAMPLING CRITERIA

INCLUSION CRITERIA

All Postnatal mothers who had:-

1. Were willing to participate in the study.
2. Were attending obstetrics & gynecology OPD and Pediatric OPD
3. Were delivered the baby within a month
4. Able to read and write Hindi language.

EXCLUSION CRITERIA: Postnatal mothers who-

1. Had undergone lower segment caesarean section.



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6. Analysis and interpretation

Table 1- Frequency and percentage distribution of socio-demographic variables of postnatal mothers regarding postnatal exercises (n=130)

S.No.	Socio demographic variable	Frequency	Percentage (%)
1.	Mother's age A) 17- 23 B) 24-30 C) 31-37	51 73 6	39.3% 56.1% 4.6%
2.	Education a) Illiterate b) Primary c) Higher secondary d) Senior secondary e) Graduate and above	0 40 41 33 16	0% 30.8% 31.5% 25.4% 12.3%
3.	Occupation a) Home maker b) Govt. employed c) Private employed d) Self- employed	71 25 21 13	54.6% 19.2% 16.2% 10.1%
4.	Monthly family income (in rupees) a) 5,000- 35,000 b) 35,001– 70,000	75 55	57.7% 42.3%
5.	Religion a) Hindu b) Muslim c) Sikh d)Others	64 31 17 18	49.2% 23.8% 13.1% 13.9%
6.	Type of family a) Nuclear b) Joint	64 66	49.2% 50.8%
7.	Area of residence a) Rural b) Urban	84 46	64.6% 35.4%
8.	Numbers of delivery (Parity) a) Primi Para b) Multi Para c) Grand multi-Para	61 50 19	46.9% 38.5% 14.6%
9.	Number of postnatal days a) 0- 15 days b) 16- 31 days	69 61	53.1% 46.9%
10. A.	Previous knowledge regarding postpartum exercise a) Yes b) No	42 88	32.3% 67.7%
B.	If yes, then specify the source of information: (n=42) a) Health care workers b) Mass Media	25 17	19.2% 13.1%



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Table 2- Knowledge score regarding postnatal exercises among postnatal mothers (n=130)

S No.	Variable	Maximum score	Range of score	Median	Mean \pm SD	Mean%
1	Knowledge score	30	9 – 22	15.00	15.161 \pm 2.52	50.53%

Figure 1, Percentage distribution of knowledge scores of postnatal mothers regarding postnatal exercises.

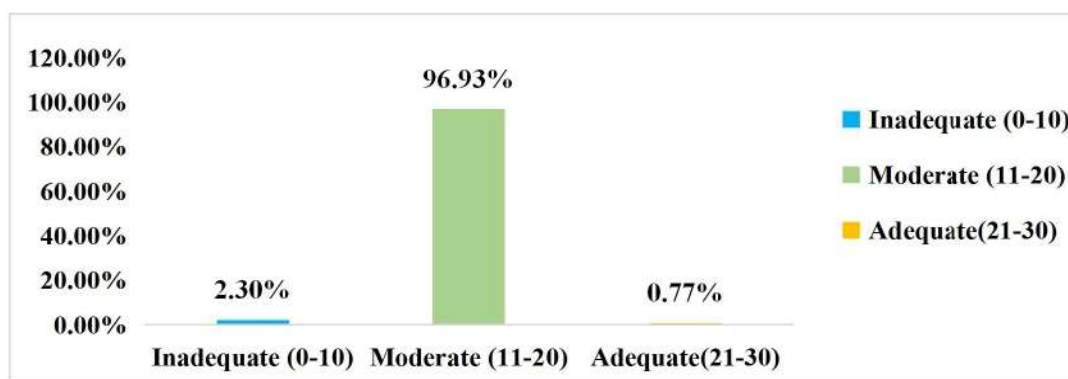


Figure 1, Illustrate that majority 96.93% of the postpartum womens who had moderate knowledge scores, 2.30% postpartum womens having inadequate knowledge scores, and only 0.77% were having adequate knowledge regarding postnatal exercises.

Table 3 - Domain- wise distribution of knowledge score regarding postnatal exercises (n=130)

S No.	Components	Maximum score	Mean \pm SD	Mean %
1.	Basic concepts of postnatal period & postnatal exercise	6	2.946 \pm 1.28	49%
2.	Deep abdominal breathing exercise	3	2.285 \pm 0.72	76%
3.	Walking Exercise	3	1.838 \pm 0.88	61%
4.	Kegal Exercise	4	1.762 \pm 0.83	44%
5.	Knee Rolling Exercise	3	1.654 \pm 0.91	55%
6.	Leg raising exercise	3	1.000 \pm 0.78	33.3%
7.	Head and shoulder raising exercise	3	1.485 \pm 0.739	49.33%
8.	Pelvic tilting exercise	5	2.192 \pm 1.09	43.8%

Table 3- Shows that the knowledge score according to area. In this study the highest mean score was in deep abdominal breathing exercise (2.285 \pm 0.72) and mean percentage 76% and lowest in leg raising exercises (1.00 \pm 0.78) and mean percentage 33.3%.Hence, it was interpreted that three domain (deep abdominal breathing exercise, walking exercise, knee rolling exercise was satisfactory knowledge score) knowledge score was satisfactory



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Table 4- Practice score regarding postnatal exercise among postnatal mothers (n=130)

S No.	Variable	Maximum score	Range of score	Median	Mean \pm SD	Mean%
1.	Practice score	20	6 - 16	12.00	11.438 \pm 1.7520	57.19%

Figure 2, Percentage distribution of practice score of postnatal mothers regarding postnatal exercise

(n=130)

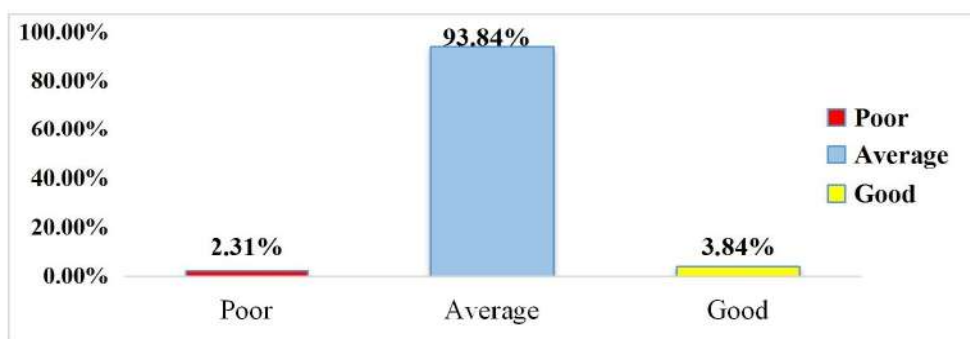


Figure 2, Illustrate that majority 93.84% of the postnatal mothers had average practice score, 3.85% of postnatal mothers had good practice score, and only 2.31% postnatal mothers had poor practice regarding postnatal exercises.

Table 5- Domain wise distribution of practice score regarding postnatal exercises among postnatal mothers

(n=130)

S.No.	Areas of Knowledge	Maximum Score	Mean \pm SD	Mean %
1.	Deep abdominal breathing exercise	3	2.269 \pm 0.70	75.33%
2.	Walking exercise	3	2.354 \pm 0.76	78.33%
3.	Kegal exercise	3	.515 \pm 0.62	17.16%
4.	Knee rolling exercise	3	2.262 \pm 0.71	75.33%
5.	Foot & leg exercise	2	1.615 \pm 0.56	80.5%
6.	Head & shoulder exercise	3	1.985 \pm 0.71	66%
7.	Pelvic tilting exercise	3	0.438 \pm 0.647	14.6%

Table 5- shows that the practice score according to the area wise the highest mean score is foot & leg raising exercise (1.61 \pm 0.56) and mean percentage is 80.5% and lowest score is area of pelvic tilting exercise (0.43 \pm 0.647) and the mean percentage is 14.6%. Hence it was interpreted that kegal exercise & pelvic tilting exercise practice was not satisfactory.



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Table No 6- Attitude score of postnatal mothers regarding postnatal exercises (n=130)

S No.	Variable	Maximum score	Range of Score	Median	Mean \pm SD	Mean%
1.	Attitude score	75	40-64	51.50	51.400 \pm 4.528	342.66%

Figure 3, Percentage wise distribution of attitude score of postnatal mothers (n=130)

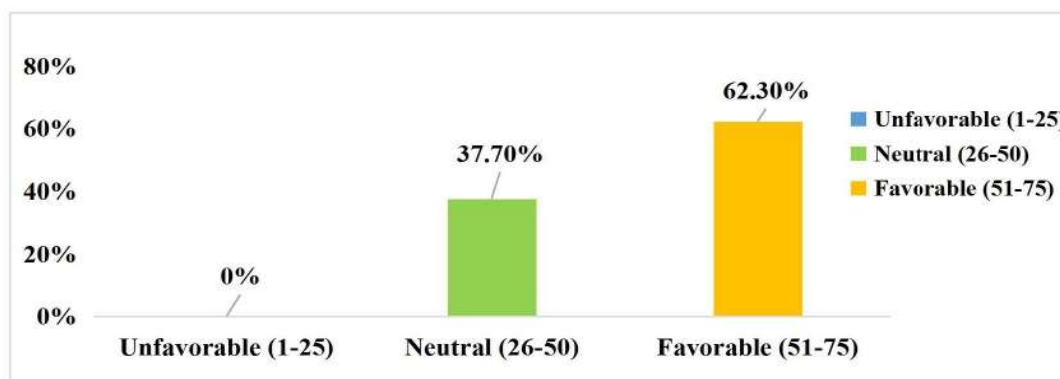


Figure 3, reveals that, the favorable score was 62.3% of the postnatal mothers, 37.7% had neutral attitude and 0% had unfavorable attitude score.

Table 7- Area wise frequency & percentage distribution of attitude score (n=130)

S.NO.	Criteria	Strongly Agree/ Agree		Neutral		Strongly Disagree/ Disagree	
		F	P	F	P	F	P
1.	Postnatal exercises necessary after the delivery	69	53.07%	28	21.53%	33	25.4%
2.	Postnatal exercise is less important than baby care	63	48.5%	26	20%	41	31.5%
3.	Postnatal exercise would be painful	38	29.3%	40	30.7%	52	40%
4.	Postnatal exercises are the best option for weight loss	78	60%	26	20%	26	20%
5.	Postnatal exercise improves blood circulation	81	62.30%	36	27.7%	13	10%
6.	Postnatal exercises reduce postnatal depression	53	40.77%	37	28.46%	40	30.77%
7.	Postnatal exercises cause physical discomfort to the mother	37	28.5%	38	29.2%	55	42.30%
8.	Postnatal exercise is better than gym	61	46.93%	40	30.77%	29	22.3%



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9.	Postnatal exercises improve abdominal muscle tone & improves physical health	51	39.23%	45	34.62%	34	26.15%
10.	Pelvic floor exercise strengthens the muscles of hip & abdomen	61	46.93%	42	32.31%	27	20.76%
11.	Postnatal exercises strengthen the back muscles	56	43.07%	41	31.53%	33	25.4%
12.	Postnatal exercises provide physical strength	75	57.69%	42	32.30%	13	10%
13.	House hold work is better than postnatal exercises	27	20.77%	35	26.92%	68	52.31%
14.	Family awareness should be necessary about postnatal exercises	101	77.69%	26	20%	3	2.31%
15.	Sufficient family support should be needed during postnatal exercises	74	56.93%	38	29.23%	18	13.84%

Table 7- shows the frequency & percentage distribution of attitude scores of PM regarding PE. Data revealed that the most (53.07%) postnatal mothers agree about postnatal exercises necessary after delivery. Data revealed that the most (48.5%) postnatal mothers agreed that postnatal exercise is less important than baby care and regarding postnatal exercise would be painful most (30.8%) of the postnatal mother were neutral response and (23.1%) were having agree and (17.7%) were have disagree and (16.7%) were strongly agree and (11.5%) were have strongly disagree. Regarding postnatal exercises is the best option for weight loss most (60%) postnatal mothers were having agree and (20%) were having neutral attitude (20%) were having disagree. Regarding Postnatal exercise improve blood circulation most (62.30%) of postnatal mothers agree and (27.7%) were having neutral and (10%) were having disagree response. Regarding Postnatal exercises reduce postnatal depression most (40.77%) of postnatal mothers having agree attitude (28.46%) were having neutral attitude and (30.77%) were having disagree attitude. Regarding postnatal exercises cause physical discomfort to the mother most (28.5%) were having agree and (29.2%) were having neutral and (42.30%) were having disagree. Regarding postnatal exercise is better than gym most (46.93%) of postnatal mothers have agree attitude and (30.77%) were having neutral attitude and (22.3%) were having disagree.

Regarding postnatal exercises improve abdominal muscle tone & improves physical health most (39.23%) of postnatal mothers having neutral attitude and (34.62%) were having agree and (26.15%) were having neutral attitude and (26.15%) were having disagree. Regarding pelvic floor exercise strengthen the muscles of hip & abdomen most (46.93%) of postnatal mothers having agree attitude and (32.31%) were having neutral attitude and (20.76%) were having disagree attitude. Regarding postnatal exercises strengthen the back muscles most (57.69%) were having agree attitude and (32.307%) were having neutral and (10%) were having disagree. Regarding house hold work is better than postnatal exercises most (20.77%) were postnatal mothers having agree and (26.92%) were having neutral and (52.31%) were having disagree about this question. Regarding family awareness should be necessary about postnatal exercises most (77.69%) were postnatal mothers having agree and (20%) were having neutral and (2.31%) were having had disagree. Regarding sufficient family support should be needed during postnatal exercises most (56.93%) were postnatal mothers having agree and (29.23%) were having neutral and (13.84%) were having disagree.



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Table 8- Correlation between knowledge score and self-reported performance checklist of postnatal mothers regarding postnatal exercises (n=130)

S.N.	Variables of the study	Mean Score \pm SD	r- value	P – Value
1.	Knowledge scores	15.16 \pm 2.529	0.010	0.910
2.	Practice scores	11.438 \pm 1.752		

Table 8- Correlation between knowledge & self-reported practice score, is found to be weak positive correlated and used spearman's nonparametric test. Hence the hypothesis is partially accepted.

Table 9- Correlation between self-reported practice score & attitude score of postnatal mothers regarding postnatal exercises (n=130)

S.N.	Variables of the study	Mean Score \pm SD	r- Value	P- value
1.	Practice score	11.438 \pm 1.752	0.039	0.662
2.	Attitude score	51.400 \pm 4.528		

Table 9- Correlation between self-reported practice score & attitude scores reveals that weak positive correlated and used spearman's nonparametric test. Hence the hypothesis is partially accepted.

Table 10- Correlation between self-reported knowledge score & attitude score of postnatal mothers regarding postnatal exercises (n=130)

S.N.	Variables of the study	Mean Score \pm SD	r- Value	P- value
1.	Knowledge score	15.16 \pm 2.529	0.217	0.013
2.	Attitude score	51.400 \pm 4.528		

Table 10- Correlation between knowledge scores & attitude scores has been found weak positive correlated. Spearman's nonparametric test is used. Hence the hypothesis is partially accepted.



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Table N0 11: Association between knowledge score with their selected demographic profile (n=130)

S.N.	Variables	Below median (< 15)	At & above median (>15)	X ²	P <0.05
1.	Age (in years) a) 17-26 b) 27-35	37 18	52 23	0.062	0.803
2.	Educational status a) Primary – Higher secondary b) Senior secondary – Graduation & above	32 23	49 26	0.691	0.406
3.	Occupation a) Employed b) Unemployed	23 32	48 27	6.299	0.012 *
4.	Monthly family income (in Rs.) a) 5,000 – 35,000 b) 35,001 – 70,000	32 23	43 32	0.009	0.923
5.	Religion a) Hindu b) Others	22 33	42 33	3.250	0.071
6.	Types of family a) Nuclear family b) Joint family	26 29	38 37	0.14	0.702
7.	Area of living a) Rural area b) Urban area	30 25	54 21	4.22	0.040 *
8.	Parity a) Primigravida b) Multi para – Grand multi para	23 32	38 37	0.99	0.318
9.	Number of postnatal days a) 0-15 days b) 16-31 days	30 25	39 36	0.08	0.774

Table no –11: The data show significant association between knowledge scores and their selected variables that is occupation, area of living & other variables are not associated with knowledge score.

The data shows that association between practice scores of postnatal mothers regarding postnatal exercise with selected demographic profile with no significant association. Hence the hypothesis is rejected.

The data shows that association between attitude scores of postnatal mothers about postnatal exercises with their selected demographic data showing no significant association. Hence the hypothesis is rejected.

Discussion

In this research the findings of the study revealed that majority of postnatal mothers (96.93%) had moderate knowledge score, (2.30%) of postnatal mothers had poor inadequate knowledge score, (0.77%) were having adequate knowledge score regarding postnatal exercises. In practice finding revealed that (93.84%) had average practice score& (3.85%) of postnatal mothers had good practice score and only (2.31%) postnatal mothers had poor practice regarding postnatal



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exercises. In the attitude questionnaire maximum score is 75 and minimum is 15. The finding of the study shows that majority (62.30%) had favorable score & (37.7%) of postnatal mothers had neutral score regarding postnatal exercises.

Conclusion

According to the findings, the researcher observed that postnatal mothers had moderate knowledge, average practice and favourable attitude regarding postnatal exercises. The study findings showed that knowledge, practice score and attitude score were weak positive in correlation with each other. Hence, the study concludes that there is high requirement to improve knowledge regarding postnatal exercises, practice regarding (Kegal exercises, Pelvic tilting exercises) and attitude towards postnatal exercises and increase family awareness programme regarding postnatal exercises.

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