



**“A descriptive study to assess the knowledge and practice of postnatal mothers on postnatal exercises in selected rural areas of jalandhar punjab, with a view to develop health education pamphlet”.**

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## **I. INTRODUCTION**

*“The movement a child is born, the mother is also born. She never existed before. A mother is something absolutely new”.*

*-Rajneesh*

A mother is a woman who has conceived, given birth to, or raised a child in the role of a parent. The woman becomes mother through the process of child birth. The transition to motherhood is a profound step in a woman's life. This transition is a revolutionary act. As a period of biological, psychological, behavioural and social change, the transition into motherhood is dramatic in postnatal period<sup>1</sup>. Motherhood is a divine emotion, an incomparable feeling. Being a mother is the most beautiful emotion in the world<sup>2</sup>.

The feeling of mother is achieved through the process of childbirth and the mother enters into a period called postnatal period. The postnatal period begins from birth and ends when the baby is six weeks of age. This period is a very special time where women undergo the transition into motherhood. The transition does not just include the physical change that occur



from the birth, but social and psychological change as well. So the care received by the mother in this period is critical not only for survival but also to the future of the mother. Major changes occur during this period that determines her well-being and potential for a healthy future. Thus it is clear that postnatal care is an unavoidable factor in the postpartum period<sup>3</sup>.

Postnatal care is given for the general mental and physical welfare of the mother and infant. Care should be directed towards prevention, early detection and treatment of complications and diseases. So, it is very essential to create awareness by teaching, counselling, advice, and services on postpartum exercises, breastfeeding, family planning, immunization and maternal nutrition<sup>4</sup>. Many studies have proved that postnatal exercises can prevent some of the complications and health problems of postnatal mothers in the postpartum period and thus can reduce the postpartum maternal morbidity.

Based on some of the estimates it has been calculated that there are 8.25 million postpartum maternal morbidities that occur every year worldwide. According to the Global Burden of Diseases (GBD) study, postpartum morbidity accounted for 22 percent of the global disease burden among women of reproductive age (15-45). The postpartum maternal morbidity in developing countries is 10 to 20 times higher than that in the developed countries<sup>5</sup>. Maternal conditions dominate the burden of reproductive ill health, accounting for 14.5 percent of Global Burden of Diseases, particularly in areas such as sub-Saharan Africa and India, where postpartum maternal ill health accounted for 24.4 percent and 10.2 percent of Global Burden of Diseases respectively<sup>6</sup>. In India it is estimated that 16.5 percent pregnancy and child birth related morbidities for every maternal deaths<sup>5</sup>.



The health problems which contribute towards postpartum maternal morbidity includes, fatigue, tiredness, perineal pain, urinary and faecal incontinence, postpartum blues/ depression, uterine prolapse in later life, haemorrhoids, backache, diastasis recti, deep vein thrombosis, obesity, constipation, disturbed sleep, sleeping disorders, lack of sexual desire and painful intercourse. These complications are occurring in various frequencies in the world wide<sup>7</sup>.

Internationally, the worldwide prevalence of urinary incontinence in women is 38 percent, four percent of women have faecal incontinence. In the US, it is estimated that at least ten million women suffer from distressing urinary incontinence. Stress urinary incontinence is the type of incontinence most frequently affecting women. Prevalence of stress urinary incontinence in post partum varies from 0.7 percent to 44 percent. Conservative treatments, centring on pelvic floor exercise, have been shown to be effective among mothers with urinary and faecal incontinence<sup>8</sup>.

Postpartum depression affects 12-15 percent of childbearing and it affects 70 percent of women within third to fifth day postpartum. Studies report prevalence rates among women vary from five percent to 25 percent<sup>9</sup>. For every 1,000 live births, 100-150 women will suffer from depressive illness and one or two women will develop a puerperal psychosis. The UK Confidential Enquiry into Maternal Deaths (CEMD) reports that psychiatric disorders contributed to 12 percent of all maternal deaths<sup>10</sup>. The postpartum blues, maternity blues, or baby blues is a transient condition that 75-80 percent of the mothers could experience shortly after childbirth<sup>11</sup>.



Uterine prolapse is one of the problems that results from childbearing, as a result of injury or stretching of pelvic ligaments. WHO studies on family formation patterns and health in Columbia, Pakistan, Philippines and Syria indicate that uterine prolapse affect about three to 25 percent of women under the age of 45. The result of a multi-centre study carried out in Egypt and Jordan found a prevalence of 56.3 percent and 34.1 percent respectively<sup>6</sup>.

As per the studies, the prevalence of diastasis rectus abdominous muscles more than two finger breadth (approximately three cm) which is 36 percent above the umbilicus and 11 percent below the umbilicus. Study also says that there is a relationship between diastasis rectus abdominous muscles and uro gynaecologic disorders, i.e. the chance of developing urinary and faecal incontinence and prolapse were 1.28, 2.56, 2.25 times greater in women with diastasis rectus abdominous muscles<sup>12</sup>.

Low back pain reportedly occurs in 30-45 percent of women during the post-partum period. In the Swedish survey, pain persisted about 18 months after delivery in over a third of the women who had backache during pregnancy. For many mothers backache resolves in the first few weeks after delivery, but for some it may continue for months, and for a few it first presents postpartum<sup>13</sup>.

Perineal pain or dyspareunia is a distressing problem for mothers in postpartum period. A UK based survey found that after spontaneous vaginal birth ten percent of women experienced pain for more than two months; the percentage increased to thirty percent for those who had an assisted delivery<sup>14</sup>.



In India, 14.6 percent postpartum mothers have urinary incontinence. The Asian Society of Female Urology puts the incidence of urinary incontinence at 12 percent in India<sup>15</sup>. A recent study in Goa, in India detected the postnatal depression in 23 percent of mothers at six-eight weeks after delivery; 78 percent of these patients had had clinically substantial psychological morbidity during the antenatal period. In addition to this uterine prolapse also found a prevalence rate between less than one percent and 27 percent<sup>16</sup>.

In Karnataka about 385 women from rural area i.e., about half percent of women reported urinary incontinence. As per the study conducted in NIMHANS Bangalore, postpartum depression affected 8-15 percent of all new mothers in Karnataka. A recent study has also shown that only about three per cent of these cases were correctly diagnosed<sup>17</sup>. The reported incidence of uterine prolapse is four percent in Karnataka<sup>18</sup>.

Many studies have proved that the above mentioned problems could be eliminated through preventive maternal healthcare services such as postnatal exercises. Thus exercises can help to cut down the maternal morbidity<sup>19</sup>. So the postnatal mothers should be encouraged to practice postnatal exercises by providing adequate information. As a nurse it is our responsibility to give education on importance of postnatal exercises to maintain a healthy body status and to reduce the postpartum maternal morbidity.

### **Statement Of The Problem:**

“A descriptive study to assess the knowledge and practice of postnatal mothers on postnatal exercises in selected rural areas of Jalandhar punjab, with a view to develop health education pamphlet”.



## Need for the study

*“Those who do not find time for exercise will have to find time for illness”.*

*Earl of Derby.*

Postnatal exercises have a vital role in the postpartum period and can contribute positively to maintain a healthy body. Regular exercises after child birth offer a range of health benefits. Exercises help to strengthen the pelvic floor muscles which help to prevent urinary and faecal incontinence, prevent low back pain, and speed up the restoration of body image. So there is a need to provide information on correct practice of pelvic floor exercises in order to bring back the body image, stimulate blood circulation and enhance appetite, strengthen abdominal muscles and help in physical as well as emotional recovery<sup>20</sup>.

A longitudinal study was conducted to establish the reported practice of pelvic floor exercises and stress incontinence after delivery among 257 women in the North – East of Scotland. The results revealed that more women practiced pelvic floor exercises after delivery than during pregnancy 134 (83.2 percent) versus 123 (76.4 percent). Nineteen percent of mothers said that the incontinence was moderate whereas 34.7 percent reported of decreased incontinence to once in a week. The researcher concluded that daily or more frequent practice of the exercise during immediate postnatal period maybe required in preventing postnatal urinary incontinence. So there is a need to provide information on correct practices of pelvic floor exercises<sup>21</sup>.

A randomized control trial was conducted to assess the effects of pelvic floor muscle training exercises in reducing urinary and faecal incontinence among 747 women in New Zealand. Results revealed that women in the intervention group had significantly less urinary



incontinence: 167 (59.5 percent) versus 169 (69.0 percent), 9.1 percent was the difference among two groups. Faecal incontinence was also reduced twelve (4.4 percent) versus twenty five (10.5 percent), difference was (6.1 percent). Finally the researcher concluded that effective pelvic floor muscle training can reduce the urinary and also co-existing faecal incontinence. So it is vital for the mothers to know about pelvic floor exercises<sup>22</sup>.

A controlled trial was conducted to assess the effectiveness of an exercise support programme on reducing postpartum depression and psychologic morbidity among 80 primi postnatal mothers in Taiwan. Results found out that women who received an exercise support program were less likely to have high depression scores after child birth when compared with control group. The researcher concluded that the exercise support programme given to postpartum women appeared to benefit their psychological well being. So there is a need for the mothers to know the postpartum exercises in order to prevent the episodes of postpartum depression<sup>23</sup>.

A prospective study was conducted to evaluate the effect of postnatal pelvic floor muscle exercises on muscle strength among 132 mothers in Norway. Results revealed that a statistically significant change in pelvic floor muscle strength was found more in Training group than Control group. The researcher concluded that specially devised pelvic floor muscle strength training programme can add significantly to physical recovery after childbirth. So the postnatal exercises are necessary to strengthen the pelvic floor muscles<sup>24</sup>.

An experimental study was conducted to evaluate the effects of postpartum exercise program on fatigue and depression among 60 postpartum women in Taiwan. Results showed a



statistically significant difference between the two groups (control groups and experimental groups) in terms of fatigue levels, with statistical improvements ( $p < .05$ ) registered by the intervention group in terms of the levels of physical and psychological fatigue and fatigue symptoms. The researcher concluded that a low-intensity exercise program can offer a good platform for clinicians and researchers to help reduce fatigue in postpartum women<sup>25</sup>. So the mothers should be educated about the importance of postpartum exercises in order to reduce the level of fatigue and depression.

A Cochrane review was done to evaluate the effect of diet, exercise or both for weight reduction in women after childbirth, involving six trials with 245 women in Brazil. Results revealed that women who took part in a diet (one trial;  $n = 45$ ; weight mean deviation -1.70 kg; 95 percent Confidence Interval -2.08 to -1.32), or diet plus exercise programme (four trials;  $n = 169$ ; weight mean deviation -2.89 kg; 95 percent Confidence Interval -4.83 to -0.95), lost significantly more weight than women in usual care. There was no difference in the magnitude of weight loss between diet and diet plus exercise group (one trial;  $n = 43$ ; weight mean deviation 0.30 kg; 95 percent Confidence Interval -0.60 to 0.66). The researcher concluded that dieting and exercise together appear to be more effective than diet alone at helping women to lose weight after childbirth<sup>26</sup>. So the mothers should be made aware about the effect of diet and exercises on weight reduction through educational programmes.

A longitudinal study was conducted to evaluate physical activity and postpartum well-being among 1003 postnatal women in USA. Results revealed that nearly 35 percent reported doing postnatal exercise with a modal frequency of three times per week. More active women had retained significantly less weight (8.6 lb [3.9 kg]) than their less active counterparts (11.3 lb



[5.1 kg]). Postpartum exercisers demonstrated a consistent pattern of better scores on measures of postpartum adaptation and were more likely than non-exercisers to participate in fun activities, such as socializing, hobbies, and entertainment. The researcher concluded that physical and psychological well being was more in postpartum women who were doing regular exercise than the non-exercisers<sup>27</sup>. So there is a need to provide information on benefits of postpartum exercises.

The above aspects indicate that there is a need to teach different postpartum exercises in order to reduce the common postpartum health problems such as urinary incontinence, faecal incontinence, postpartum depression, back ache, diastasis recti, obesity and to attain the physiological and psychological well being. But many mothers are not practicing any of the postnatal exercises due to lack of knowledge. Keeping these aspects in mind the investigator felt that there is a need to assess the knowledge of postnatal mothers regarding postnatal exercises and its benefits and to give more education on these aspects.

### **Operational Definitions**

An operational definition is derived from a set of procedures or progressive acts, that the researcher performs to receive sensory impressions that indicate the existence or degree of variable.

### **Descriptive study:**

Here in this study, it refers to collecting detailed description of existing knowledge and practice of postnatal mothers on different types of postnatal exercises, and its importance in preventing the complications like urinary and faecal incontinence, postpartum blues/ depression, uterine prolapse in later life, haemorrhoids, backache, diastasis recti, deep vein thrombosis,



obesity, constipation, disturbed sleep, sleeping disorders, lack of sexual desire, and painful intercourse. The knowledge will be assessed by administering a close-ended structured interview schedule.

### **Knowledge:**

Here in this study, it refers to correct responses given by the post natal mothers to the items in the structured interview schedule on postnatal exercises, which are scored and added to quantify their knowledge. The areas of knowledge are:

- guidelines of postpartum exercise
- types of exercises
- benefits of postnatal exercises
- body mechanics
- complications of inadequate postnatal exercises

### **Practice:**

Here in this study, it refers to the activities related to postnatal exercises usually performed in the postnatal period by the post natal mothers. It is influenced by the initial knowledge of the mothers and it may vary between primipara and multipara mothers. It is assessed by three point rating scale. The areas of practice that are assessed:

- Pre requisites of postnatal exercises.
- Types of postnatal exercises.
- Body mechanics.



### **Post natal mothers:**

Here in this study, postnatal mothers refers to the mothers, both primipara and multipara who had normal vaginal delivery, in the immediate postpartum period, that is within 7 post natal days, and who are residing in a selected rural areas under Surathkal PHC. Mothers who had caesarean section is not included in the study.

### **Postnatal exercises:**

Here in this study, postnatal exercises refer to the different exercises usually performed by the postnatal mothers which include, pelvic floor exercises, back and abdominal exercises, breathing exercises, neck exercises, leg and foot exercises in order to prevent complications in the postnatal period. The important body mechanics a mother should do in the postpartum period is also included in the study.

### **Rural areas:**

Here in this study, it refers to selected rural areas which come under Surathkal PHC. The rural areas are easily reachable and are about 16 kms away from the college. The study will be conducted on postnatal mothers who are living there and interested in knowing more about health aspects.

The PHC is selected on the basis of:

- geographical proximity.
- feasibility of conducting the study.
- availability of the samples.



### **Health education pamphlet:**

In this study it refers to the self – learning printed material with information regarding guidelines of postnatal exercises, type, benefits, body mechanics and complications due to inadequate postnatal exercises which is prepared by the investigator in Kannada and English in order to distribute after interview schedule. Before distributing the pamphlet the investigator herself will demonstrate the exercises to the mothers.

### **Assumptions:**

The researcher assumed that :

- the post natal mothers will have some knowledge on postnatal exercises.
- the postnatal mothers may be practicing some of the postnatal exercises.
- the demonstration of exercise will make clear the concept of exercise.
- the information booklet will increase the knowledge of postnatal mothers on postnatal exercises.

### **Delimitation:**

The study is delimited to:

1. who are residing in a selected rural areas.
2. 50 postnatal mothers.
3. assessing only on those items which are included in the structured interview schedule and rating scale.



### **Hypothesis:**

The study is based on the following hypothesis and this will be tested at 0.05 levels of significance.

**H<sub>1</sub>:** There will be a significant association between the knowledge and practice scores of postnatal mothers on postnatal exercises with selected demographic variables such as age, religion, parity, education, occupation, type of family, family income and sources of information of postnatal mothers.

### **ABSTRACT**

Postnatal exercise is typically a gentle exercise, which can help a new mother slowly get back to her pre-pregnancy level of fitness. Based on some of the estimates it has been calculated that there are 8.25 million postpartum maternal morbidities that occur every year worldwide. In India it is estimated that 16.5 percent pregnancy and child birth related morbidities for every maternal deaths. So the researcher felt the importance of teaching postpartum exercises to bring down the maternal morbidity. A descriptive study was conducted in selected rural areas of Mangalore to assess the knowledge and practice of postnatal mothers on postnatal exercises.

### **Objectives of the study**

The objectives of the study were to:

1. determine the existing knowledge of postnatal mothers on postnatal exercises as measured by close ended structured interview schedule.



2. identify the existing practice of postnatal mothers on postnatal exercises by three point rating scale.
3. find the association between knowledge and practice scores of postnatal mothers on postnatal exercises with selected demographic variables such as age, religion, parity, education, occupation, type of family, family income and sources of information.
4. determine the correlation between knowledge and practice on postnatal exercises among postnatal mothers.
5. demonstrate postnatal exercises to postnatal mothers.
6. distribute health education pamphlet on postnatal exercises.

The conceptual framework for the study was developed on the basis of Modified Pender's Health Promotion Model(1996).

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### **Methods**

Non-experimental descriptive survey approach with a typical descriptive design was adopted in the present study. Purposive sampling technique was used for the selection of the



sample. A structured interview schedule was used to assess the knowledge and practice of postnatal mothers on postnatal exercises.. Reliability of the knowledge questionnaire was  $r = 0.84$  and rating scale was  $r = 0.85$ . A pilot study was conducted on ten postnatal mothers who are residing in Sasihithulu, Mangalore. The main study was conducted in Haleyangady, Mangalore, with the sample size of 50 postnatal mothers. After data collection from the subjects, the researcher demonstrated the postnatal exercises to the mothers and further the health education pamphlets regarding postnatal exercises were distributed to mothers to improve their knowledge.

## **Results**

Assessment of the level of knowledge of mothers showed that the highest percentage 70 percent of the sample had moderate/average knowledge, 30 percent of the mothers had poor knowledge. No mother had good knowledge on exercises. Overall knowledge regarding postnatal exercises in the study population was 46.67 percent with total mean and SD  $11.20 \pm 1.591$ .

Assessment of the level of practice of mothers showed that the highest percentage 90 percent of the sample had poor practice, four percent of the mothers had average practice and only six percent of the mothers had good practice of postnatal exercises. The over all practice scores of the study population was 30.20 percent with the mean and SD of  $9.06 \pm 4.800$ .

Chi –square test computed in order to find the association between knowledge and practice score with selected demographic variables, which reveals that there was significant association between knowledge score and sources of information and practice score with parity



and religion but no association between knowledge and practice scores and other demographic variable such as age, education, type of family, occupation and family income.

There was no correlation observed between the knowledge and practice scores of postnatal mothers on postnatal exercises.

### **Interpretation and conclusion**

Overall knowledge regarding postnatal exercises in the study population was 46.67 percent and the over all practice scores of the study population was 30.20 percent. Hence, it is concluded that the knowledge of postnatal mothers was not adequate enough therefore further improvement in knowledge was still needed in this area. The researcher emphasizes the need for more research to improve the knowledge of postnatal mothers on postnatal exercises.

**Keywords:** Postnatal exercises; Health education pamphlet; Descriptive study; Non-experimental; Purposive sampling.



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