

**A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE OF MOTHER
REGARDING EFFECTIVENESS OF BIRTHING BALL EXERCISE
TO REDUCE LEVEL OF LABOUR PAIN AMONG
PRIMIGRAVIDA MOTHERS SELECTED
HOSPITAL OF KANPUR, UP.**

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ABSTRACT: “Motherhood is wonderful, but it’s also hard work. It’s the logistics more than anything. You discover you have reserves of energy you didn’t know you had”.—Deborah Mailman. Pain in labour is a nearly universal experience for child bearing women and it can be intense with tension, anxiety and fear making it worse. It is however experienced differently by mothers giving birth. The majority of women though need some sort of pain relief drugs during childbirth, but safety of the child takes the first priority. Natural childbirth is a "lowtech" way of giving birth by letting nature take its course some women choose to give birth using no medications at all, relying instead of techniques such as relaxation and controlled breathing for pain. **OBJECTIVES:** The study was conducted with the objectives to assess the knowledge of the mothers regarding the effectiveness of birthing ball exercise to reduce level of labour pain among primigravida mothers and to associate the knowledge of primigravida mothers with their selected demographic variables. **MATERIAL & METHODS:** Non-Experimental Descriptive Research Design was used in this study with 30 primigravida mothers. **RESULTS:** The Mean of knowledge scores of primigravida mothers regarding effectiveness of birthing ball exercise to reduce level of labour pain is 12.5, Median is 15, the Data Range is 9, Mean Deviation of knowledge score is 2.04, and Standard Deviation of knowledge score is 2.53. **CONCLUSION:** It was concluded that statistical analysis and interpretation that maximum of the primigravida mothers had average knowledge regarding effectiveness of birthing ball exercise to reduce level of labour pain.

INTRODUCTION: Pain in labour is a nearly universal experience for child bearing women and it can be intense with tension, anxiety and fear making it worse. It is however experienced differently by mothers giving birth.¹ The majority of women though need some sort of pain relief drugs during childbirth, but safety of the child takes the first priority.² Natural childbirth is a "lowtech" way of giving birth by letting nature take its course some women choose to give birth using no medications at all, relying instead of techniques such as relaxation and controlled breathing for pain.³ With natural childbirth, the mother is in control of her body, usually with a

labor assistant gently guiding and supporting her through the stages of labor. The birth rate for India in 2020 was 17.592 births per 1000 people, a 1.2% decline from 2019.⁴

The labour process is divided into four stages that delineate milestones in a continuous process. The first stage or the cervical stage, which starts from the onset of the true labour pain and ends with the full dilatation of the cervix.⁵ The second stage starts from full dilatation of the cervix and ends with expulsion of the fetus from the birth canal and the third stage begins after expulsion of the placenta and membranes and the fourth stage is the observation for at least one hour after expulsion of the afterbirth.⁶

NEED FOR THE STUDY: Labour pains are the fact of life that cannot be avoided, but reduced to some extent by the use of nonpharmacological and pharmacological approaches. Reducing the labour pain and providing comfort to the women is the most important challenge that midwives and physicians face from very beginning.⁷ It is believed that giving birth in an upright position is beneficial for both mother and the infant for several physiologic reasons.⁸

Birthing ball is a physical therapy ball that helps in parturient mothers in the first stage of labor progress which can be used in various positions. One of the movements is by sitting on the ball and rocking to make you feel comfortable and help the progress of labor by using gravity while increasing the release of endorphins because the elasticity and curvature of the ball stimulate the receptors in the pelvis that are responsible for secreting endorphins (Kartini, 2017).⁹

The use of a birthing ball during labor during the first stage of the active phase can reduce the level of pain because it can stimulate postural reflexes and maintain the muscles and keep the spine posture in good condition, so that it can help the process of lowering the fetal head into the pelvic cavity, reducing the length of the first stage, accelerate cervical dilation and facilitate labor (Raidanti, 2021).¹⁰

STATEMENT OF THE PROBLEM:

“A Study to Assess the Knowledge Regarding Birthing Ball Exercise Among primigravida mothers At Selected hospital , Kanpur, U.P., India”

OBJECTIVES:

1. To assess the knowledge of primigravida mothers regarding birthing ball exercise in selected hospital, Kanpur.
2. To associate the knowledge of primigravida mothers with their selected demographic variables.

HYPOTHESIS:

H1= There will be significant association between the knowledge level of the primigravida mothers regarding birthing ball exercise with their selected demographic variables.

METHODS AND MATERIALS:

RESEARCH APPROACH: In the present study, Quantitative non-experimental research approach was used.

RESEARCH DESIGN: In the present study, Non-experimental Descriptive Survey Research Design.

VARIABLES:

DEPENDENT VARIABLE: In this study, knowledge of primigravida mothers regarding birthing ball exercise.

DEMOGRAPHIC VARIABLE: The demographic variables under the study are age, gender, religion, marital status, type of family, attended any training programme regarding birthing ball exercise in last six months.

POPULATION: The population for this study comprises of primigravida mothers.

TARGET POPULATION: In this study the target population was primigravida mothers in selected hospital of Kanpur, U.P. India.

SAMPLE: The sample for the present study comprises of primigravida mothers who met the inclusion and exclusion criteria.

SAMPLE SIZE: The sample size for the present study consists of 60 primigravida mothers from Rama Hospital, Kanpur , U.P.

SAMPLING TECHNIQUE: In the present study, non-probability convenient sampling technique has been used for selection primigravida mothers.

SAMPLING CRITERIA:

INCLUSION CRITERIA:

- Primigravida mothers from selected hospital of Kanpur, U.P.
- Primigravida mothers those who were willing to participate.

EXCLUSION CRITERIA:

- Primigravida mothers those who were from other courses.
- Those who were sick at the time of data collection.

METHODS OF DATA COLLECTION: Assessment of knowledge regarding birthing ball exercise was measured by administering research tool.

DEVELOPMENT OF RESEARCH TOOL: On the basis of developed framework, to achieve the objectives of the study, A self-structured knowledge questionnaire was prepared to assess the knowledge questionnaire was prepared to assess the knowledge on birthing ball exercise of primigravida mothers.

DESCRIPTION OF THE TOOL:

SECTION A: It consists of demographic variables of 30 primigravida mothers to be participated in the study. The demographic variables include Age, Religion, Occupation, Type of family, Previous knowledge about birthing ball exercise.

SECTION B: It consists of 20 question regarding effectiveness of birthing ball to reduce level of labour pain. Each 1 mark and total 20 marks. The total score ranges from 0-20, the level of score is further divided as follows :

Poor knowledge: score 0-6

Average knowledge: score 7-13

Good knowledge: score 14-20

RESULTS AND FINDINGS:

SECTION A: FINDINGS RELATED TO THE DEMOGRAPHIC VARIABLES

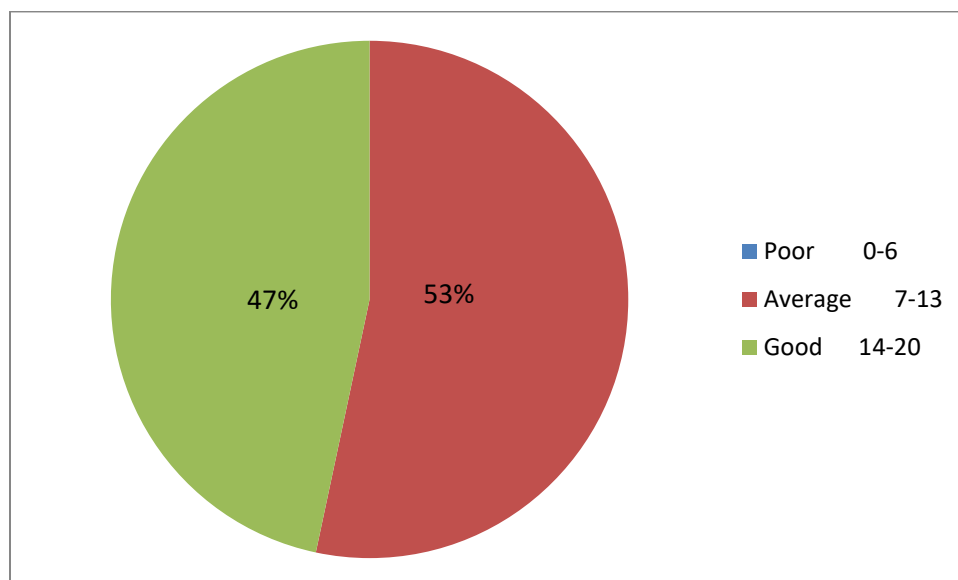
- Distribution of primigravida mothers according to their Age shows that 30% samples were at age group of 18-24 years, 57% were 25-30 years, 13% were 31-35 years.
- Religion shows that 97% samples were hindus, 03% were Christians.
- Primigravida mothers according to Family shows that 30% samples were from Nuclear and 70 % were from Joint family.
- According to the previous knowledge about birthing ball & 80% were not having previous knowledge about birthing ball exercise.

SECTION B: FINDINGS RELATED TO THE LEVEL OF KNOWLEDGE REGARDING EFFECTIVENESS OF BIRTHING BALL EXERCISE TO REDUCE LEVEL OF LABOUR PAIN

- 47% of primigravida mother have Good knowledge.
- 53% of primigravida mothers have Average knowledge and nobody have Poor knowledge regarding effectiveness of birthing ball exercise

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRIMIGRAVIDA MOTHERS ACCORDING TO THEIR LEVEL OF KNOWLEDGE REGARDING EFFECTIVENESS OF BIRTHING BALL EXERCISE TO REDUCE LABOUR PAIN.

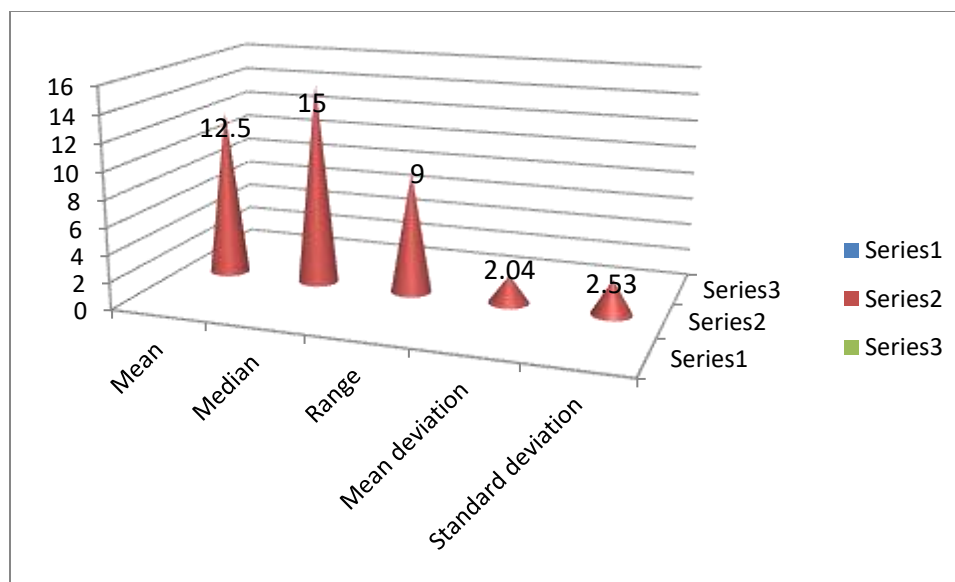
Level of knowledge	Score	Frequency	Percentage
Poor	0-6	0	0
Average	7-13	16	53%
Good	14-20	14	47%



Shows that 47% of primigravida mothers have Good knowledge, 53% of primigravida mothers have Average knowledge and nobody have poor knowledge regarding Effectiveness of Birthing Ball Exercise to reduce labour pain.

SECTION C: DISTRIBUTION OF KNOWLEDGE SCORE OF PRIMIGRAVIDA MOTHERS IN TERMS OF MEAN, MEDIAN, RANGE, MEAN DEVIATION AND STANDARD DEVIATION.

Mean	Median	Range	Mean deviation	Standard deviation
12.5	15	9	2.04	2.53



The above table shows that the Mean of knowledge scores of primigravida mothers regarding effectiveness of birthing ball exercise is 12.5, Median is 15, the Data range is 9, Mean deviation of knowledge score is 2.04, and Standard deviation is 2.53.

LIMITATIONS:

- The study was limited to assess the knowledge of primigravida mothers
- The study was limited to the primigravida mothers who are admitted in selected hospitals at Kanpur, UP.

IMPLICATIONS:

The researcher had drawn the following implications from the study which was of pressing concern in the arena of nursing practice, nursing education, and nursing research.

Nursing practice

- Prevents harm in labour room
- Increase the effectiveness of birthing ball exercise to primigravida mothers.

Nursing education

- Seminars, workshops and conference can be conducted for students to gain knowledge and skill in birthing ball exercise procedures.

Nursing research

- The research findings can be disseminated through conference, seminar, and publishing in journals and websites.
- Nurse researcher can conduct a qualitative research study to assess the effectiveness of birthing ball exercise protocol.

CONCLUSION: The level of knowledge of the primigravida mothers regarding effectiveness of Birthing Ball exercise to reduce level of labour pain was calculated with measure of central tendency and dispersion. It was concluded that statistical analysis and interpretation that maximum of the primigravida mothers has average knowledge regarding effectiveness of birthing ball exercise to reduce labour pain.

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