POSTURE RELATED NECK PAIN AMONG THE LACTATING MOTHERS OF DHAKA CITY

Faculty of Medicine

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Posture-related neck pain among the lactating mothers of Dhaka city

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DECLARATION

This work has not previously been accepted in substance for any degree and isn't concurrently submitted in candidature for any degree. This dissertation is being submitted in partial fulfillment of the requirements for the degree of B.Sc. in Physiotherapy.

I confirm that if anything identified in my work that I have done plagiarism or any form of cheating that will directly awarded me fail and I am subject to disciplinary actions of authority. I confirm that the electronic copy is identical to the bound copy of the Thesis.

In case of dissemination the finding of this project for future publication, research supervisor will highly concern, it will be duly acknowledged as graduate thesis and consent will be taken from the physiotherapy department of Saic College of Medical Science & Technology (SCMST).

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Abbreviation

B. Sc. PT	: Bachelor of Science in physiotherapy
BF	: Breastfeeding
BFRNP	: Breastfeeding related neck pain
BPRMSP	: Breastfeeding positions-related musculoskeletal pain
CBOs	: Community-based organizations
DU	: Dhaka university
NGO	: Non-governmental
NSAIDS	: Nonsteroidal Anti-Inflammatory Drugs
PHD	: Doctor of Philosophy
PT	: Physiotherapy
SCMST	: Saic college of medical science and technology
SPSS	: Statistical Package for The Social Sciences
UNICEF	: United Nations Children's Fund
WHO	: World Health Organization

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Abstract

Purpose: The aim of the study was to identify posture-related neck pain among the lactating mother population in Dhaka city. ***Objective:*** To determine the posture-related neck pain among the lactating mothers in Dhaka city. ***Methodology:*** This was a cross-sectional type of descriptive study. This study was conducted to determine the posture related neck pain among the lactating mother population. This study's sample was collected through convenience sampling procedure and the total sample was 242. The data was collected from the different areas across Dhaka. The data collection process was a questionnaire with a face-to-face interview. Data was analyzed with Microsoft Office, Excel 2019 using SPSS 25 version software program and test use of study chi-square test. ***Result:*** This study's participant means and standard deviation of participant age where are Mean ±SD= 25.31±4.504; About (50.8%) mother age 18-25 years; (38.8%) age 26-30 years; (8.7%) age 31-35 years; and (1.7%) more than 36 years. Around (1.7%) of them were live in a rural area, (33.50%) are from semi-urban and (64.90%) from urban areas. (.8%) illiterate, (28.9%) were primary education. (57.40%) were experiencing pain in neck. severity level was mild pain felt 31.40%, moderate pain experienced 19.40% and 6,60% was suffered from severe pain. ***Conclusion:*** From the database, it was found that (57.40%) participants have had neck pain. This study found a high prevalence of symptoms among them. The investigator used simple direct observation to measure ergonomic risk factors however it would be better if a standard observation tool could be introduced. In addition, since this sample size was small, to generate adequate evidence to support decision-making processes at the national level, there should be more studies among the third gender in Bangladesh. Appropriate, adequate, and timely information is needed to build awareness among them.

Keywords: *Lactating mother, Posture, Breastfeeding mother, Neck pain.*

CHAPTER: I INTRODUCTION

1.1: Background

One of the best strategies to ensure a child's health and survival is to breastfeed them, (World Health Organization).

Both moms' and children's physical and emotional health benefit from breastfeeding. Mothers use a supportive nursing position to help newborns latch on more readily and to better manage their breasts so that milk can flow freely (Rani et al., 2019).

In recent years, attempts to lower obstacles to early commencement of BF and promote exclusive BF, as advised by the World Health Organization and United Nations Children's Fund (UNICEF), have risen (WHO). These efforts aim to maximize the advantages of BF for the mother and child, (Black et al., 2013).

According to prior research, uncomfortable feeding postures are frequently linked to BF-related musculoskeletal issues (Rani et al., 2019).

According to anecdotal evidence, nursing moms frequently assume unsupported head/neck postures with ensuing persistent neck flexion in an effort to monitor the baby while feeding. The neck and back muscles are typically strained by such a prolonged uncomfortable stance and excessive repetition (Rani et al.,2019).

A nursing mother's BF practices may differ from another nursing mother's BF habits. These characteristics may include the BF position(s) used, the frequency and duration of BF, the use of just BF and the number of breastfed kids (Abaraogu et al., 2016).

Breastfeeding (BF) is a physically taxing activity that is typically carried out with the mother's head down as she makes an effort to keep eye contact with the baby. Not many studies have been done on the potential causes of BF-related neck pain

(BFRNP). The prevalence and correlates of BFRNP were examined in this study among lactating mothers in Dhaka city (Rani et al., 2019).

A nursing mother's BF practices may differ from another nursing mother's BF habits. These features could include the number of breastfed children, the number of BF positions adopted, the length and frequency of BF, the practice of BF exclusivity. To direct maternal education on BFRNP prevention, it is vital to determine the relative connections between these traits and the prevalence of BFRNP. In order to determine the prevalence and correlates of BFRNP among Nigerian nursing moms, this study was created. (Ojukwu et al., 2022).

Few studies have been done on the effects of mothers' nursing compliance on their musculoskeletal system. Even when breastfeeding programs are recognized to have potential benefits, the effect of nursing positions on the musculoskeletal system may be a sign that they are not being followed. Therefore, the question of whether the baby-friendly breastfeeding program is mother-friendly is raised by the impact of nursing on the musculoskeletal system. (Hector et al., 2005).

This study evaluated the prevalence of breastfeeding positions-related musculoskeletal pain (BPRMSP) among nursing women from a chosen group of baby-friendly institutions in southwest Nigeria. It looked at both lifetime (prior and present positive history) and point prevalence (present positive history). (Mbada et al., 2013).

The act of milk transference between a mother and child is referred to as breastfeeding. The first stage in making sure the infant has a reliable source of nutrients is thought to be breastfeeding. (Okolo and Ogbonna., 2002).

1.2: Justification:

Breastfeeding is one of the most effective ways to ensure child health and survival and this feeding is done by a mother. Most of the mothers in our country and other countries face neck pain while breastfeeding because their posture is not correct. I have studied some previous research and found that there are many studies about lactating mother and less study about their posture related neck pain and also there is no research about posture related neck pain among lactating mother.

By this study further researcher will able to get information about posture related neck pain among lactating mother as well as government, NGO and policy makers can take necessary steps to minimize the problem of lactating mother.

1.3 Research Question:

What is the level of posture-related neck pain among the lactating mothers of Dhaka city?

What is the prevalence of neck pain among the lactating mothers in Dhaka city?

What is the duration of neck pain among the study subjects?

What are the types and nature of pain of the participants?

1.4 Objective of the study:

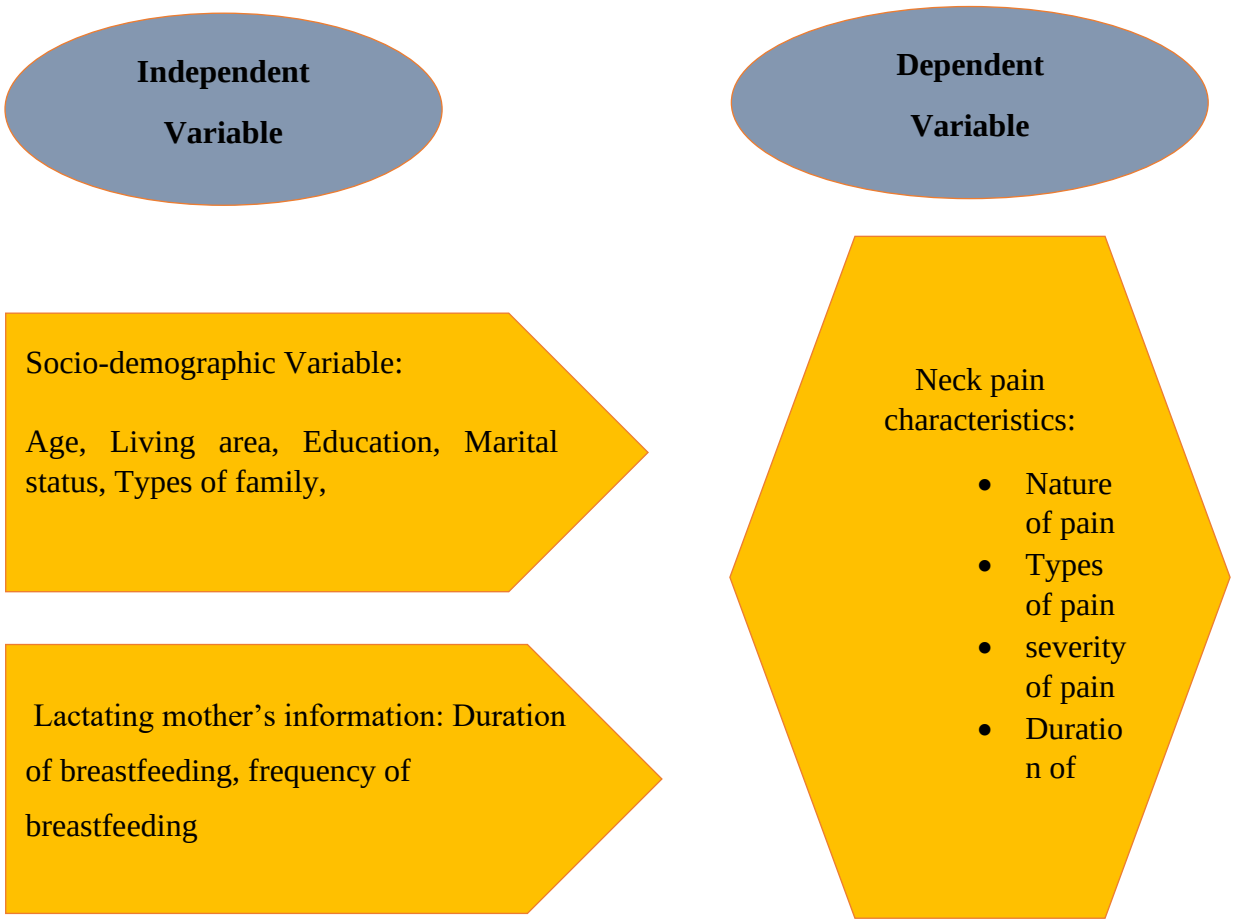
1.4.1 General objective:

- To determine the posture-related neck pain among the lactating mother in Dhaka city.

1.4.2 **Specific objective**:

- To calculate the prevalence of posture-related neck pain among the lactating mothers in Dhaka city.
- To assess the severity of neck pain of lactating mothers by using NPRS.
- To calculate the duration of pain of the participants by using NPRS.
- To identify the types of pain of the study subjects by asking questions.
- To assess the nature of the neck pain of the lactating mothers by asking questions.
- To determine the Socio-demographic characteristics of the study population.
- To examine the association of breastfeeding characteristics with posture-related neck pain in lactating mothers.

1.5 Conceptual framework:



1.6: Operational definition

Breastfeeding mother: The term "breastfeeding mother" refers to a woman who is providing nourishment and sustenance to her infant or baby by feeding them with her own breast milk. Breastfeeding is a natural process in which a mother's mammary glands produce milk that contains essential nutrients, antibodies, and other components that are crucial for the infant's growth, development, and overall health. This practice is recommended by healthcare professionals due to its numerous benefits for both the mother and the baby. It establishes a close bond between the mother and child while offering optimal nutrition and protection against various illnesses and infections.

Neck pain: Neck pain is a sensory discomfort, soreness, or ache that occurs in the region of the neck, which is the part of the body that connects the head to the shoulders and upper back. It can encompass a range of sensations, from mild discomfort to more intense pain, and it can be caused by various factors, including muscle strain, poor posture, injuries, degenerative conditions, nerve compression, medical conditions, and stress. Neck pain may be localized to the neck area or may radiate to the shoulders, upper back, arms, or head, depending on its underlying cause. The severity and duration of neck pain can vary, and its treatment may involve rest, medication, physical therapy, lifestyle adjustments, or medical interventions, depending on the specific cause and individual circumstances.

Posture: Posture refers to the arrangement and alignment of the body's parts, including the head, spine, limbs, and joints, in relation to one another while in a static position (such as sitting, standing, or lying down) or during movement. It encompasses the way the body holds itself and the distribution of weight across various body segments.

Uncomfortable feeding: uncomfortable feeding" could refer to a situation where the act of providing food is accompanied by discomfort. This discomfort could be on the part of the person or entity providing the food, the recipient of the food, or both. The reasons for this discomfort could vary widely and might include physical discomfort, emotional unease, social awkwardness, or other factors.

CHAPTER: II LITERATURE REVIEW

One of the 39 collaborative sites in the World Health Organization is made up of the two northernmost counties of Sweden (W H O) M O N IC A (monitoring of trends and determinants in cardio-vascular illness) project We added a few questions about cervical spine complaints to the last survey in 1999. People randomly selected from the populace in a geographically well-defined area filled out a self-administered questionnaire. 8,356 participants made up the sample, and 6,000 (72%) of them provided responses. More women (48%) than men (38%), or 43 percent of the population, experienced neck pain. Women who were working age reported having more neck pain than older women, a phenomenon not common among men. Chronic neck pain is defined as ongoing discomfort lasting longer than six months. Women are more likely than men to experience chronic neck pain (22%) compared to men (16%). More than one-fourth of the cases with persistent symptoms had a history of neck or head trauma, with whiplash accounting for one-third of these. In this case, all neck trauma seems to be connected to recurring neck pain (Guez et al., 2002).

The prevalence of neck pain has a significant influence on people and their families, communities, health care systems, and companies. Between 10.4 and 21.3% of people are thought to experience neck pain in a year, and neck pain is generally common. The population may reach 86.8% (Fejer et al., 2006); (Hoy et al., 2010); (Genebra et al., 2017).

According to report through the baby-friendly hospital project, the World Health Organization and the United Nations Children's Fund started a global initiative in 1991 to put policies in place that safeguard, support, and promote breastfeeding. By increasing the possibility that infants will be exclusively breastfed for their first six months, the effort is said to have given nursing the best possible assistance (Chantry et al., 2008).

Breastfeeding (BF) is a physically demanding action that is frequently performed with the mother's head bowed while she tries to maintain eye contact with the infant. Few investigations have been conducted on the potential reasons of neck

pain associated with BF (BFRNP). This study looked at the prevalence and correlates of BFRNP among nursing mothers in an African nation (Rani et al., 2019).

Musculoskeletal pain associated with nursing positions is prevalent and common among moms who breastfeed while seated on a mat or at their bedside. In many cases modest in intensity, primarily affecting the back, neck, and shoulders. Age and parity were significantly linked to BPRMSP history that was positive. Education on proper breastfeeding posture is advised as it may help lower the risk of musculoskeletal pain and make nursing more mother-friendly overall (Mbada et al., 2013).

According to Nicholson, sitting without a lumbar support causes L2/L3 and L3/L4 intradiscal pressure to be 30% higher than when standing. Findings of this study, BPRMSP mainly manifested between 3 and 6 months after childbirth, was intermittent in nature, and exhibited mild to moderate severity. 53.6% of the mothers reported self-medicating for BPRMSP. (Mbada et al., 2013).

According to the body areas most impacted by BPRMSP were the neck (20.5%), neck and shoulder (16.6%), and back and neck (12.6%), according to the results. 60.6% of the moms who participated in the study and provided responses lacked a positive BPRMSP history. However, the study indicated that the lifetime and point prevalence of BPRMSP were, respectively, 39.4% and 15.9% (Mbada et al., 2013).

Another study found that, the majority (55.2%) had given birth to two to four children, had breastfed two to four children, and (53.4%) were within one to three months of giving birth when the data was collected. Regarding their breastfeeding histories, the majority had breastfed for 1-3 months (53.4%), did not exclusively breastfeed (50.9%), breastfed more than 10 times per day (55.2%), for an average of less than 30 minutes each session (49.1%), and used the cradle hold position (94%) (Rani et al., 2019).

BF-related pains among nursing mothers were caused by higher numbers of breastfed children. In the current study, mothers also had increased discomfort for 1-3 months after giving birth. The time frame for this is the phase of postpartum healing

marked by decreased musculoskeletal integrity and an increased risk of discomfort (Kesikburun et al., 2018).

According to earlier studies, adopting uncomfortable postures while feeding has a common correlation with BF-related musculoskeletal issues. Anecdotal evidence suggests that nursing moms frequently assume an uncomfortable head/neck posture with a resulting persistent neck flexion in an effort to see their child (Petronilla et al., 2017).

Breastfeeding prevalence, maternal variables, and BF features did not show any statistically significant relationships; however, the variability in the distribution of BFRNP in relation to these parameters point to the need for additional research to investigate potential linkages. The high frequency of BFRNP further highlights the importance of BF ergonomics education for mothers. Therefore, in order to reduce the prevalence of BFRNP and enhance BF outcomes for both mothers and newborns, lactation consultants, occupational therapists, and physiotherapists who specialize in women's health must participate in initiatives that promote maternal health. The subjectivity of the study's pain ratings, which were primarily dependent on self-reports, is a possible weakness. The moms' reactions might have been impacted by an inappropriate remembrance of their BF experiences ((Ezeukwu et al., 2020); (Ojukwu et al., 2022).

According to found that Nigerian nurses had a significant prevalence of BF-related musculoskeletal pain, especially neck pain. Nursing mothers have been known to experience BF-related neck pain (BFRNP), particularly those who use improper BF posture (Mbada et al., 2013).

In the evaluation Nipple soreness in the postpartum phase is frequently ascribed to the infant's improper posture and attachment (Kent et al., 2015).

While decreased bone mineral density has been linked to postpartum hormonal changes, equal dietary calcium and vitamin D intake, changes in physical activity, more pregnancies, and duration and frequency of lactation have all been linked to decreased bone mineral density (Wimalawansa et al., 2003).

In the included studies, the definitions of participants with and without neck discomfort varied. The variance in definition may have contributed to the observed heterogeneity in the pooled analysis of the studies. In several of the included studies, idiopathic neck discomfort from the previous three to six months was examined. In other studiesothers assessed the existence of neck pain by a single (yes/no) inquiry while others explored a history of neck pain over 6 months or even a year, which predisposes the results to recollection bias (Mahmoud et al., 2019).

Musculoskeletal issues linked to breastfeeding because of postural abnormalities and concomitant muscle fatigue in the trunk muscles. long-term stationary work. A number of important factors, including uncomfortable postures, have been linked to the emergence of work-related musculoskeletal problems. The cradle posture, which triggered greater activity in the left trunk muscles, also showed these related trunk muscle activities. The left upper limb had to reach out in order to support the baby in the left cradle posture used in this study. However, compared to the cross-cradle position, the cradle position elicited smaller trunk lean angles (Hellig et al., 2019).

Although the differences were only statistically significant between the later and C1 hold positions, the C2 hold produced the largest anterior trunk lean angle and muscular activity in the right ES and EO muscles. In the C2 position, the nursing breast is supported by the lateral upper limb while the infant is supported by the contralateral upper limb to the side on which the infant is positioned. In order to reach out fully and securely hold the infant's buttocks or trunk during this maneuver, the trunk must flex more flexibly. When compared to the cradle and football postures, the anterior trunk lean angle is higher, which may help to explain the situation (Ezeukwu et al., 2020).

Lactation mechanics, such as positioning and latching (the act of attaching to the breast during breastfeeding), are thought to be crucial for successful breastfeeding (Dongre et al., 2010); (Goyel et al., 2011).

Therefore, for the most benefits of BF practices for both the newborn and the mother, appropriate latch and position are advised (Ezeukwu et al., 2020).

These kyphotic positions are typically caused by physiologic changes that shift the center of gravity, resulting in tense neck and shoulder muscles along with stretched abdomen and paraspinal muscles (Roberts et al., 2011).

The most comfortable spinal position for the individual to finish movement patterns and then integrate" is referred to as a neutral spine position.this impartial position in routine jobs. Every person's neutral position is when the pressure on their vertebrae and discs is equal (Pendleton & Schultz-Krohn, 2006).

Encourage the mother to avoid crossing her legs when breastfeeding or putting one ankle across the other knee because doing so puts strain on the ligaments in her lower back, pelvis, and knee. If use a footstool to raise the mother's flexed knees over her hips while she is seated in a chair. This encourages a partially reclined posture (Roberts et al., 2011).

When employing a cross-cradle hold or football hold, placing a flat pillow under the baby and under the mother's forearm or wrist may help to promote a neutral wrist and forearm position. A breastfeeding cushion can provide additional support for infants who are premature, small for gestational age, or have abnormal muscular tone. In order to establish neutral, pain-free alignment, the mother may require a wrapped towel at the corresponding spinal level if she already has cervical, thoracic, or lumbar joint problems. She might require extra pillows to support her shoulder and forearm if she suffers nerve compression in her neck or forearm (Roberts et al., 2011).

Working with occupational and physical therapists, lactation consultants can help postpartum moms learn how to implement healthy habits. Incorporating the principles of energy conservation, joint protection, and body mechanics into everyday infant care routines and breastfeeding. Additional therapy treatments may be beneficial for new mothers who appear with specific infant feeding difficulties, acute pain syndromes, or physical difficulties. Helping a new mother avoid difficult postures that could result in a musculoskeletal pain disease frees her to take pleasure in her baby's regular, quiet requirements (Roberts et al., 2011).

Mothers have been found to lean forward toward the baby during BF, especially when feeding small or younger babies, for ease and improved latching. In addition to prolonged shoulders and greater strain on the upper back and posterior neck muscles, this posture also results in shortened anterior neck and shoulder muscles (Wei et al., 2013).

A woman may be predisposed to having musculoskeletal discomfort due to physiologic changes that are linked to pregnancy and the postpartum period. physiological modifications in Pregnancy symptoms include swelling of soft tissues, increased fluid retention, ligament thinning, weight gain, hyper lordosis, and enlargement of the symphysis pubis (Borg-Stein et al., 2005).

When picking up a baby, place one hand under the child's bottom and support the body with the other forearm. Do not remove the infant from the armpits. This ups the chance of thumb tendonitis by extending the thumb and putting the wrist in ulnar deviation. Kneel and pull the infant up to your chest if they are on the floor before standing. Keep one hand and forearm underneath the baby's bottom while supporting the baby's trunk with the other arm when carrying a heavy infant. Additionally, it keeps the baby's shoulders extended and enables midline use of both hands (Roberts et al., 2011).

Keep the baby's and mother's attire simple while choosing outfits. Pick baby clothes with minimal buttons or snaps. For instance, a baby gown with a drawstring closure can make changing diapers at night easier. A two-piece costume could be simpler to maneuver than a one-piece with numerous fasteners (Hajic et al., 2010).

Encourage the mother to avoid bending forward to give the baby a breast because this causes shoulder protraction and could put additional strain on the upper back and posterior neck muscles while shortening the muscles in the front of the neck and shoulders, which could eventually cause them to lose flexibility (Jeffcoat et al., 2009).

According to another study founding With ICC (95% confidence intervals) of 0.87 (0.66, 0.94) for NDI and 0.97 (0.94, 0.99) for NRS neck pain, test-retest reliability was very high. Acceptable absolute reliability was displayed. A Cronbach alpha (internal consistency) of 0.70 for NDI, an SDC of 1.6 for NRS, and acceptable construct validity, discriminative validity, and practicality (Shrestha et al., 2021).

The assumptions were made based on findings from earlier research; for instance, a strong correlation between the NDI score and NRS was predicted based on correlation coefficients of about 0.70 in the original publication. By using the Spearman rank order correlation coefficients, construct validity was evaluated (rho). A 75% agreement between the estimated correlation coefficient and the predefined hypothesis was deemed to be a satisfactory construct validity (Almeida et al., 2015).

All of the study's participants were breastfeeding mothers who ranged in age from 18 to 40 and were still caring for their young children. This study excluded women with known orthopedic and neurological disorders of the spine, upper limbs, and shoulder areas who were pregnant or nursing at the time of BF. For this investigation, a total sample of 310 women was recommended by an a priori power analysis that calculated the sample size required to reach 90% power with a moderate effect size of 0.50 at a level of significance (Ojukwu et al., 2022).

According to earlier studies, the average amount of time it took to complete the surveys was 7.7 minutes (SD: 2.1), and 67 (45%) of the patients required help. Provides information on NDI completeness and internal consistency. All survey submissions were accepted. On no more than two of the 10 questions, there were missing answers. Two of the individual questions, items 4 (reading, 36.7%) and 6 (concentration, 40.7%), had a disproportionately high frequency of missing responses that were imputed. There was no effect on the floor or ceiling (Shrestha et al., 2021).

The effect sizes for the NRS and VAS were marginally higher than those for the VRS (0.47 and 0.44, respectively), as were the F values (93.49 and 85.74, respectively) (0.42 effect size and F statistic of 76.36). both FPS-R (0.32 effect size and F statistic of 72.62). Power calculations based on these effect sizes revealed that for the NRS, VAS, VRS, and FPS-R, respectively, 5, 5, 5, and 7 participants would be required in order to

detect an overall difference between temperatures assessed by an ANOVA. Additionally, in the omnibus ANOVAs for each measure, all of the effect sizes linked to the temperature main effects were sizable. In line with the temperature differences, the effect sizes for the comparisons for each pair of temperature differences ranged from medium (0.17) to large (0.59). For each scale, these variations likewise follow the same pattern (Ferreira-Valente et al., 2011)

Another study found that, Cradle hold was discovered to be the most popular BF position (94.0%), and the majority breastfed for an average of 10 times per day (55.2%) for an average of 30 minutes per session (49.1%). 51.7% of women had BFRNP, of which 55.0% had moderate pain intensity, and 60.0% had this pain during breastfeeding (Ojukwu et al., 2022).

Another study on the frequency of the sociodemographic, maternal, and BF variables impacting BFRNP. 63.7% of moms were between the ages of 26 and 30; 94% were married; 96.6 percent identified as Christians; and 62.9% were self-employed. The respondents' BF profiles as well as their overall maternal features. The majority (55.2%) had given birth to two to four children, and 53.4% had breastfed those children while they were between one and three months old (53.4%). Regarding their breastfeeding histories, the majority had breastfed for 1-3 months (53.4%), did not exclusively breastfeed (50.9%), breastfed more than 10 times per day (55.2%) for under 30 minutes per session (49.1%), and used the cradle hold position (94%) (Ojukwu et al., 2022).

Another study found that, the frequency of BFRNP and its features in breastfeeding mothers. 51.7% of the respondents experienced BFRNP, according to the findings. Most people who reported neck pain described it as moderate (55%), happening occasionally (68.3%), happening during BF (60%) and typically lasting for less than 10 minutes (53.3%). Comparing different BF positions, the cradle hold position caused the most pain in the majority of the subjects (91.7%). The majority of the ladies (83.3%) also stated that shifting BF positions during breastfeeding sessions helped them feel less neck pain (Ojukwu et al., 2022).

There were three portions (A, B, and C) to this structured questionnaire. Data on the respondent's age, religion, occupation, marital status, number of breastfed children, and length of postpartum were among the sociodemographic and maternal variables elicited in Section A. Section B asked respondents about their breastfeeding characteristics, such as how long they breastfed, whether they practiced exclusive breastfeeding, how often they breastfed, and the three common breastfeeding positions (the cradle hold, cross-cradle hold, and the clutch or football hold) they used (Ezeukwu et al., 2020)

Four experts approved the face and substance of this questionnaire. In a pilot research, 10 nursing women from one of the postnatal clinics used the test-retest method to gauge the reliability of the system. The interval between the test and retest activities was 10 days. Test-retest reliability had a r=0.977 correlation coefficient (p=0.001). A total of 480 copies of the survey were printed and given out to nursing moms at the postnatal clinics; 310 mothers returned the surveys, producing a response rate of 64.6%. The survey was completed by 310 mothers. Information on the prevalence and features of BFRNP was sought in Section C (Ojukwu et al., 2022).

CHEPTER –III METHODOLOGY

3.1: Study design: This was a cross-sectional type of descriptive study.

3.2: Study area: Data were collected from the lactating mothers from Firoza Bari disabled children hospital, Radda MCH-FP Center, Delta Health Care Mirpur limited of Dhaka city.

3.3 Study period: The duration of the study was 12 months from 1st July 2022 to 30th June 2023.

3.4: Study population: Lactating mothers of Dhaka City constituted the study population for the present study.

3.5: Sample size: Sample size was calculated by the following equation,

$$n= \frac{z^2Pq}{d^2}$$

Z = 1.96

P = Prevalence = 51.7% = 0 .517

q = 1-P

d = Confidential interval = 0.05

According to the standard formula

sample size will be, $\frac{z^2Pq}{d^2} = [(1.96)^2 \times 0.517 \times 0.483] \div (0.05)^2 = 383.71$

3.6: Sampling technique: Convenience sampling technique was applied to select study subjects for the research.

3.7 Eligibility criteria:

3.7.1 Inclusion criteria

1. Under 40 years old lactating mothers.
2. Mentally stable.

3.7.2 Exclusion criteria

1. Those who are not interested.
2. Mothers are severely ill.

3.8 Method of data collection: Data were collected from the participants by the face-to-face formal interview.

3.9 Instrument of data collection: A pretested questionnaire. The questionnaire contained both open and close-ended questions. NPRS scale was also used to assess the level of pain of the participants.

3.10 procedure of data collection:

- The researcher herself went their Bangladesh Council for Welfare, Delta Health Care Mirpur Limited Mirpur 11, Radda MCH-FP Centre Mirpur 10, the researcher obtained permission from the authority of those selected study institutions. Then the aims and objectives of the study were explained to the lactating mothers in detail. Those mothers who agreed to participants in the study were included in the sample. After obtaining written informed consent from the participants the researcher started the interview. A pretested questionnaire was used as an instrument of data collection during the interview.
- After finishing the interview, the respondents were given thanks. It the end of day each day the questionnaire was checked for any error or inconsistency. Nesseory corrections were done accordingly responses were coded and entered into the computer.

3.11 Data analysis: Data was analyzed with Microsoft Office Excel 2019 version and the Statistical Package for Social Science (SPSS) version 25 software.

3.12 Result: The finding of the present study has been presented by frequency, table, chats, graph, and description.

3.13 Ethical consideration:

- The investigator followed the World Health Organization (WHO) and Bangladesh Medical Research Council (BMRC) guidelines.
- Approval received from the IRB of SCMST.
- Data collection permission was taken from the Head of the physiotherapy Department of SCMST.
- Confidentially maintained strictly.
- Informed consent was taken from every participant.

CHAPTER: IV RESULT

The study aimed to find posture-related neck pain among the lactating mothers of Dhaka city. The data were collected by the researcher herself. A pretested Structured questionnaire were used with contained open-ended and close-ended questions. The data were analyzed with Microsoft Office Excel 2019 with SPSS 25 version software program. In this study researcher used bars, columns, Figures, and Pie charts to show the result of the study. Because it is easier to make sense of a set of data.

4.1: Socio-demographic condition:

4.1.1: Age of participant:

Regarding age of the participants, it was found that 123(50.80%) participants belonged to the age group of 18-25years.It was also found that 94(38.80%) participants were in the age groups of 26-30. The mean age of the participants was 25.31 and SD was 4.504.

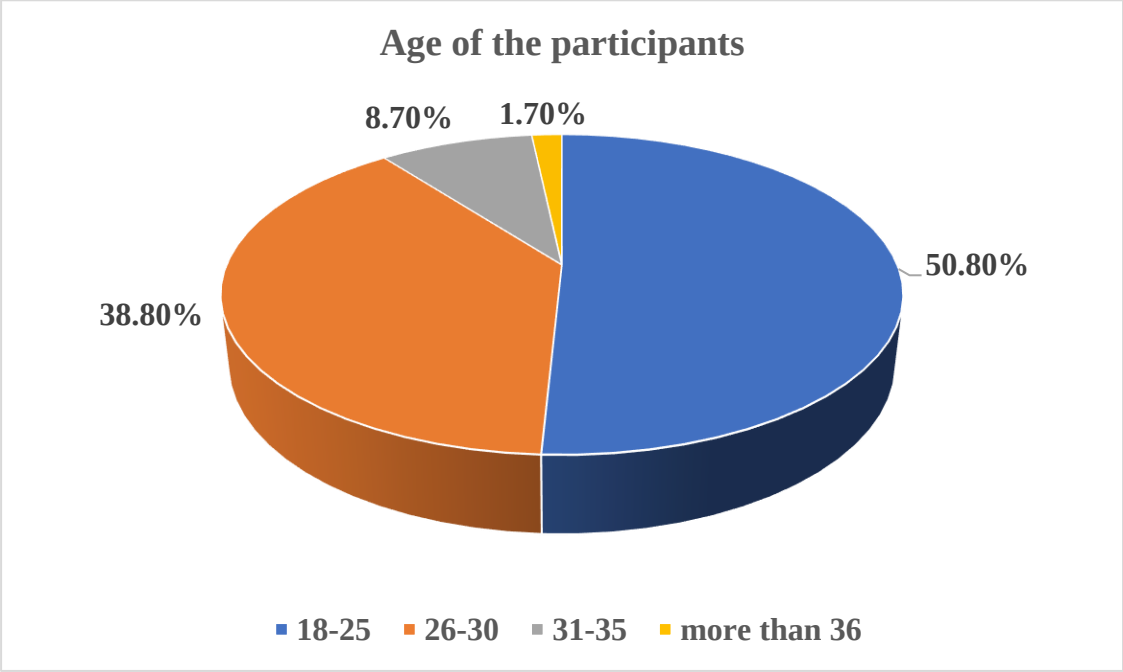


Fig no:1- Age of the participants

4.1.2: Occupation of participant:

About occupation of the mothers, the study showed that 222(91.70%) of lactating mothers were housewife and 17(7.00%) mothers were in different jobs.

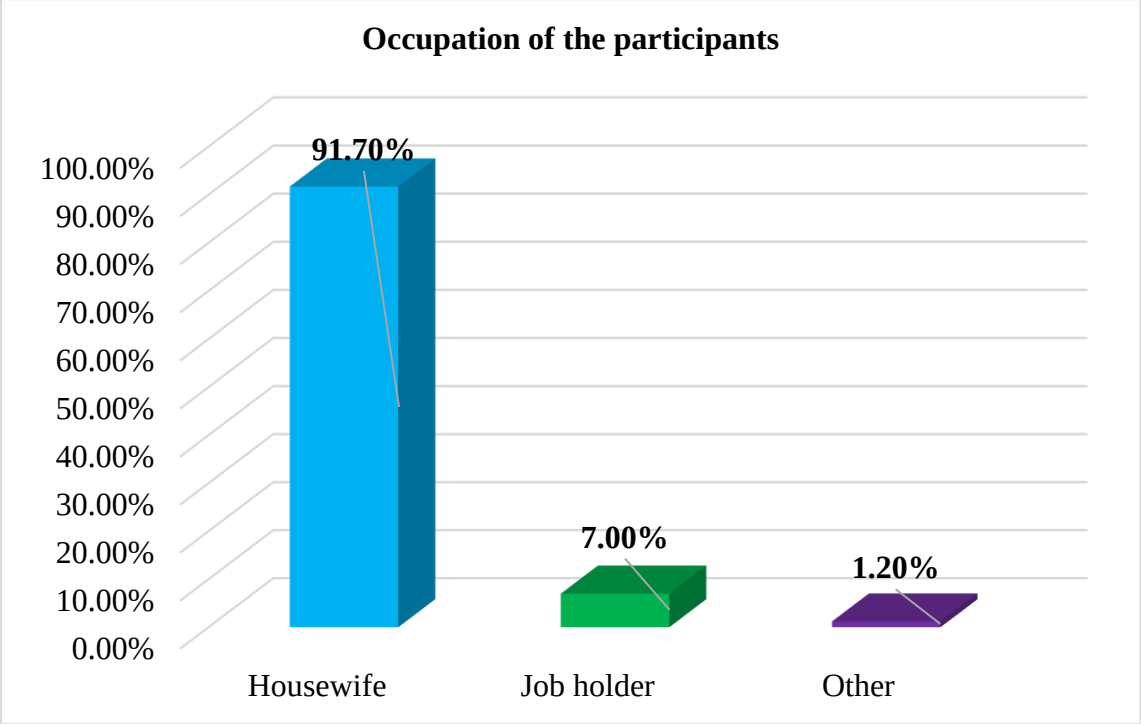


Fig no:2- Occupation of the participant

4.1.3: Living area of participant:

Around 4(1.70%) were lived in a rural area, 81(33.50%) were from semi-urban and 157(64.90%) from urban area.

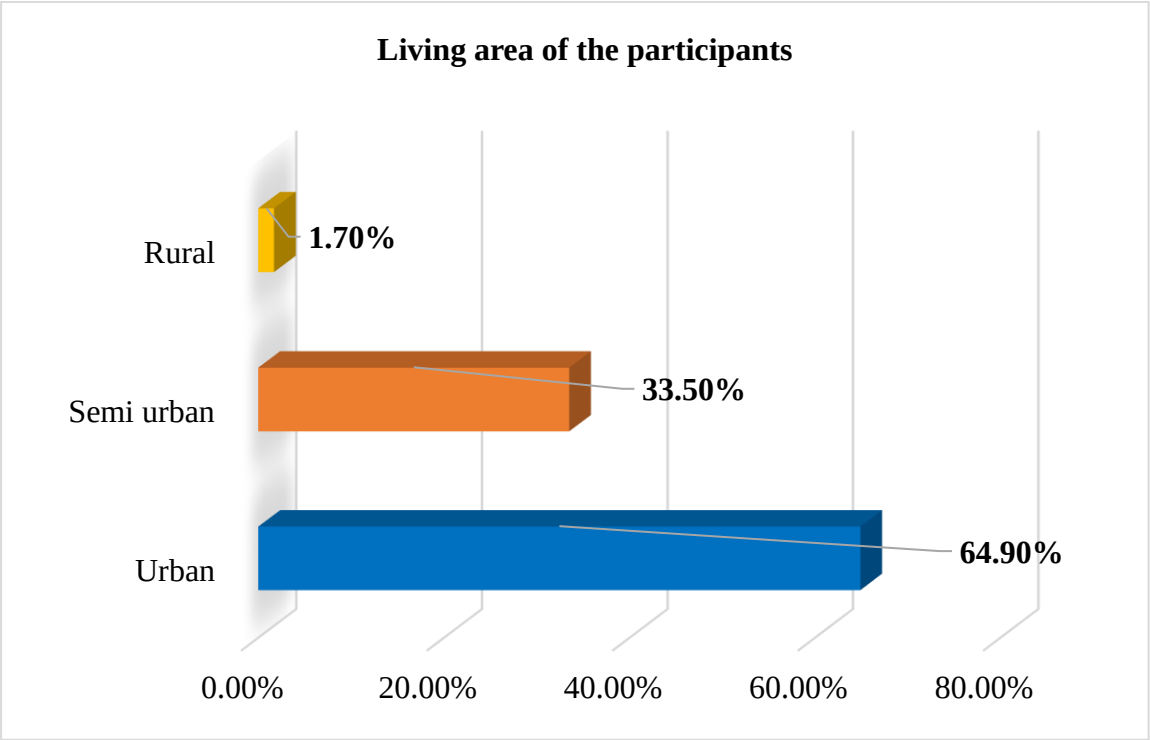


Fig no:3- Living area of participants

4.1.4: Educational level of the participant:

About this study of participant educational level 70 (28.9%) where were Primary; 60(24.8%) were Secondary;38(15.7%) were Higher secondary; 2(.8%) were illiterate; 72(29.8%) were others education level.

Table no: 01: Educational level of the participant

Education level of participant	**Frequency**	
	N	**%**
Primary	70	28.9
Secondary	60	24.8
Higher secondary	38	15.7
Illiterate	2	.8
Others	72	29.8
Total	242	100

4.1.5: Type of family of the participant:

The majority of them were 189(78.10%) nuclear family; 53(21.90%) extended family.

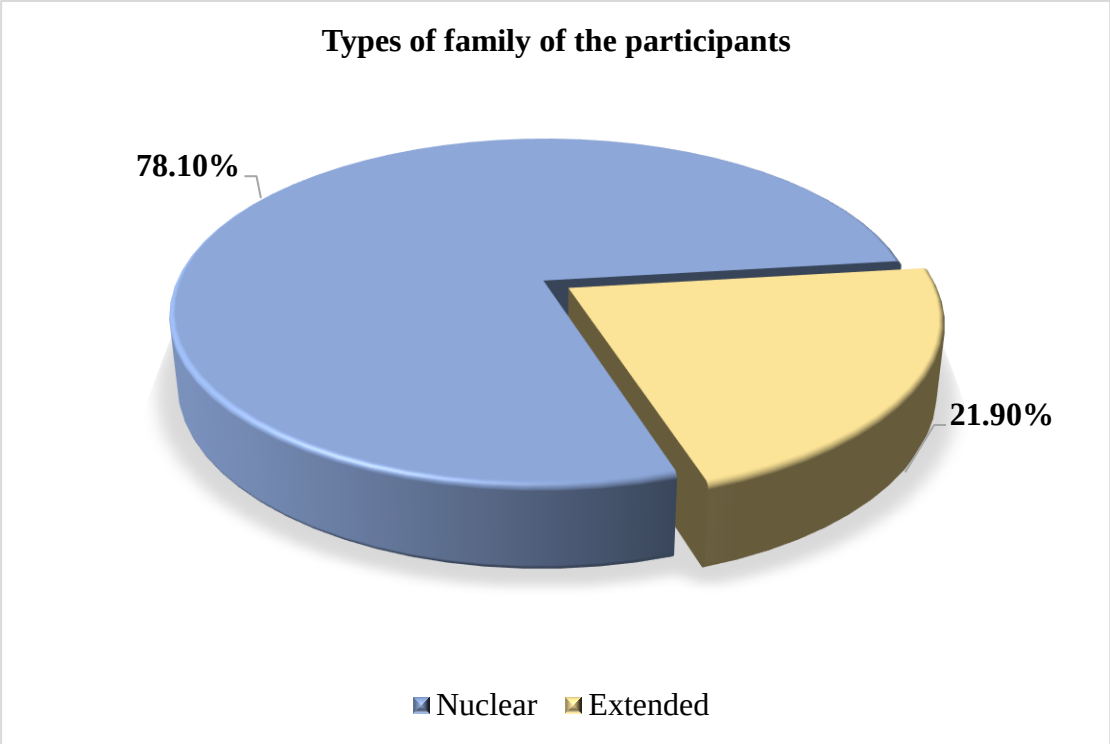


Fig no:4- Type of family of the participant

4.1.6: Marital status of the participants:

A total of 242 participants were respondents. Among them 239(98.80%) were married and 3(1.20%) were divorced.

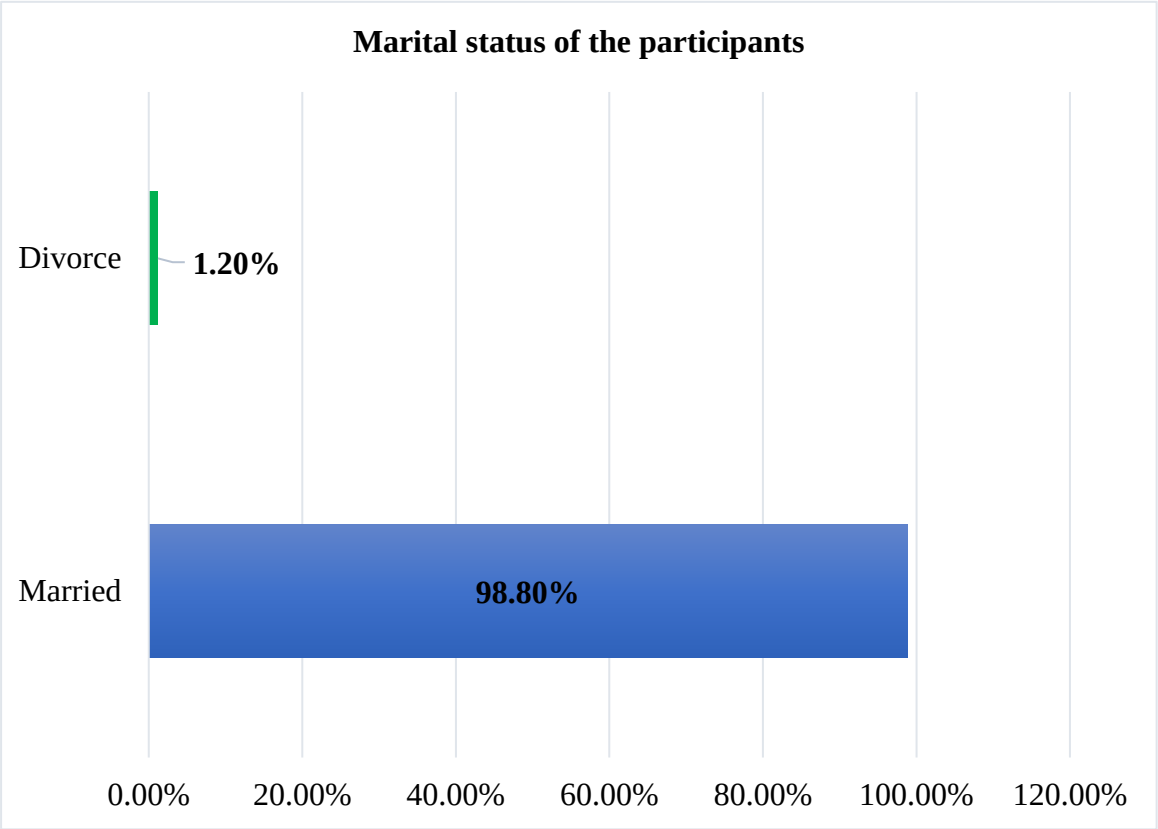


Fig no:5- Marital status of the participants

4.1.7: Monthly income of the participants:

The study showed that 137(56.60%) participants had monthly income less than Taka 25000 and 96 (39.70%) participants had Taka 25000-40000.

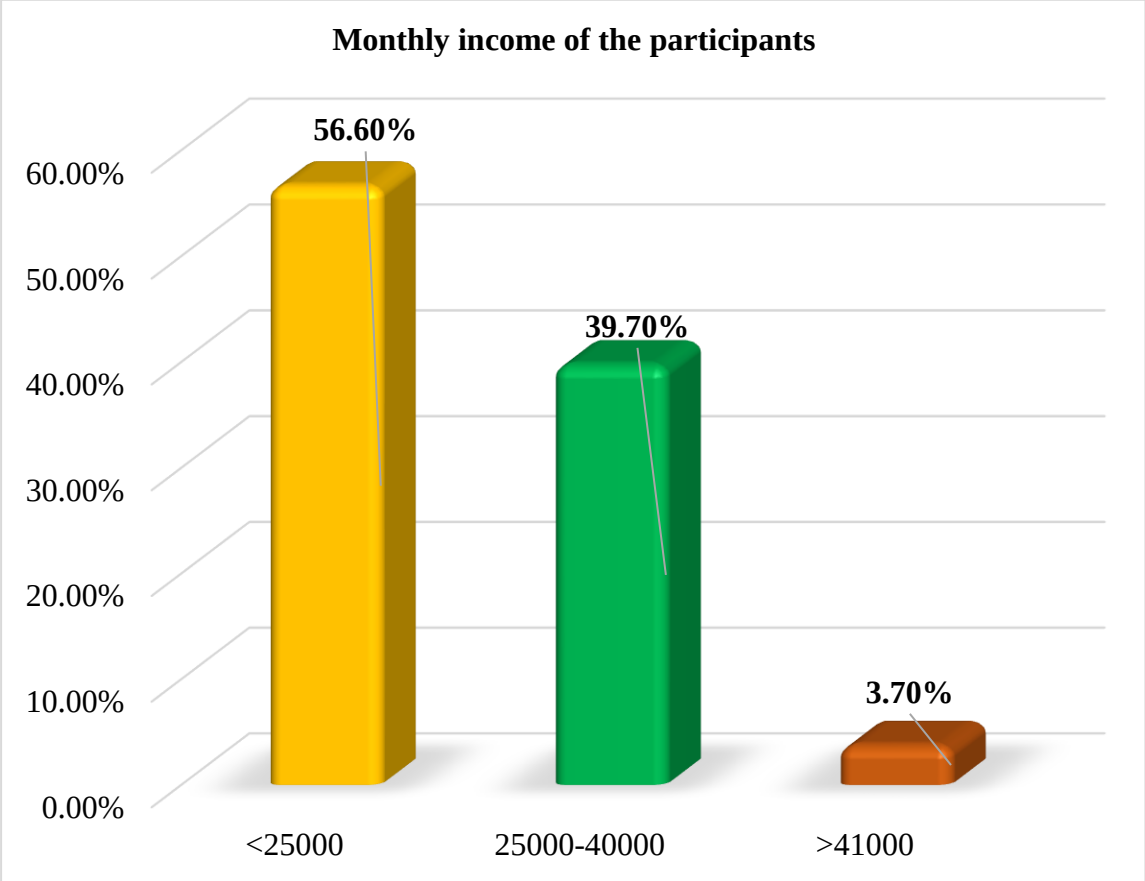


Fig no:6- Monthly income of the participants

4.1.8: Religion of the participants:

This survey was 232(95.90%) religion Islam; and 10(4.10%) Hindu.

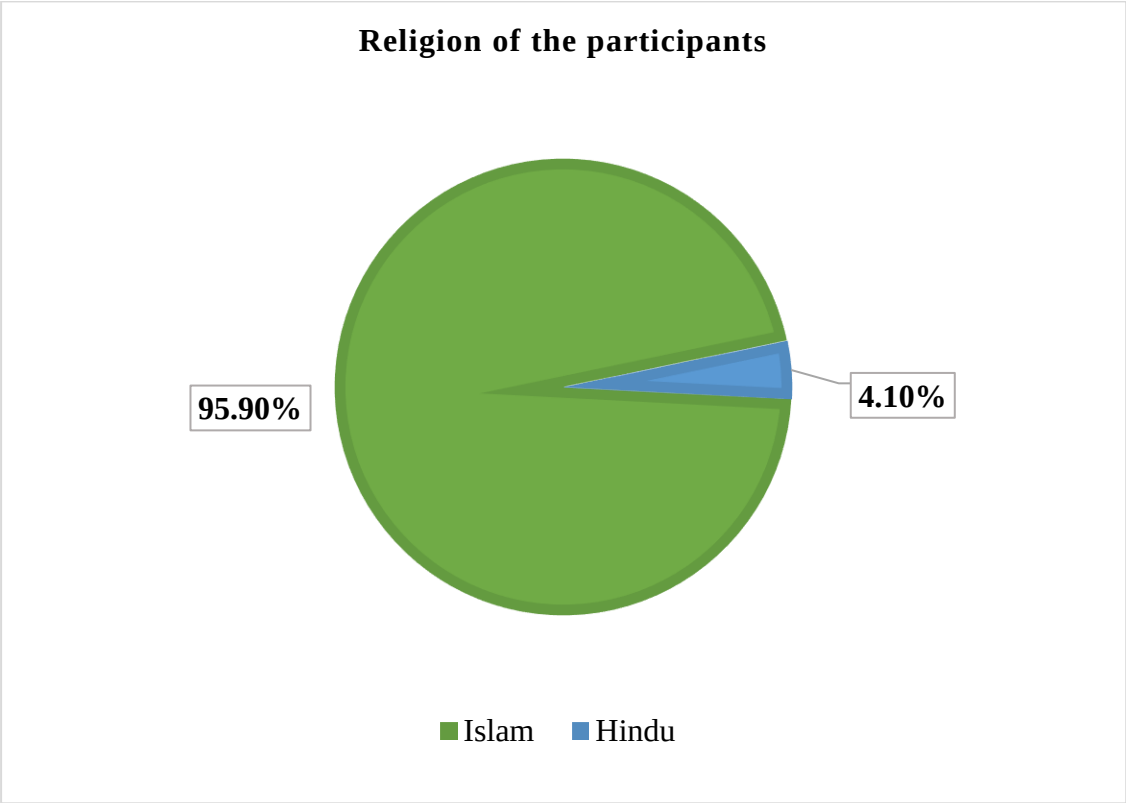


Fig no:7-Religion of the participants

4.2: Lactating mother information

4.2.1: Number of children of the participants:

About this study of the participant number of children 10(4.10%) were more than three children; 32(13.20%) were three children; 83(34.30%) were two children; 117(48.30%) were one child.

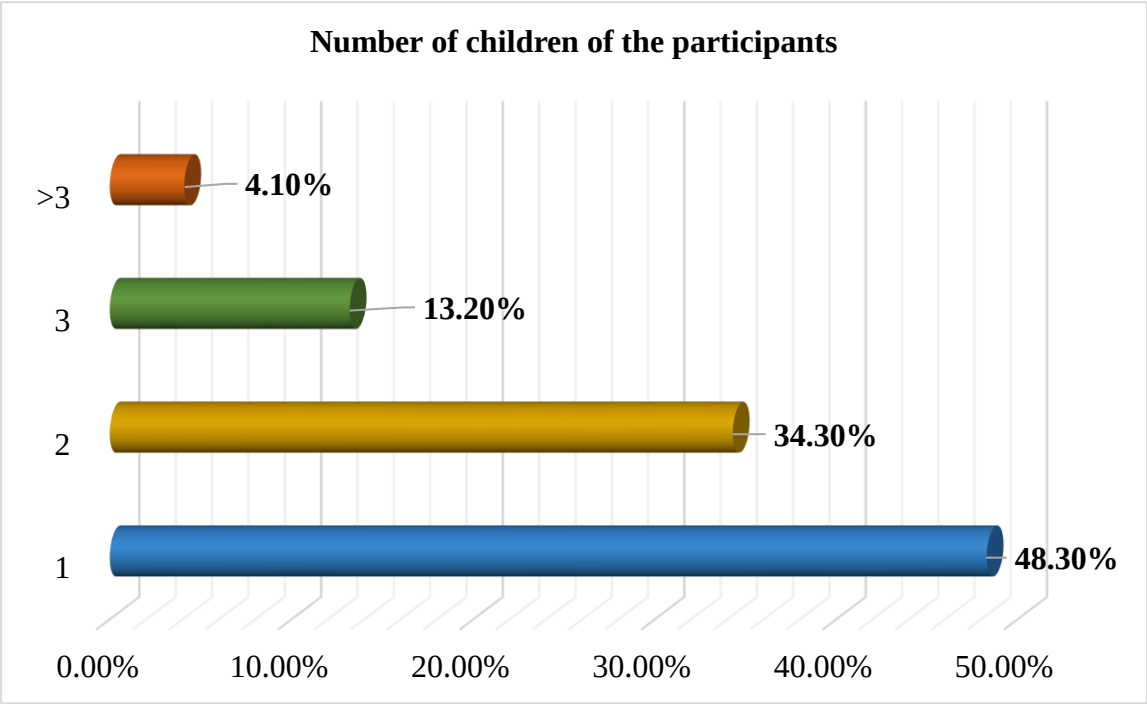


Fig no:8- Number of children of the participants

4.2.2: Number of breastfeeding children of the participants:

A total of 242 participants were respondents. Among them 238(98.30%) were one child breastfeeding and 4(1.70%) were two children breastfeeding of the participant.

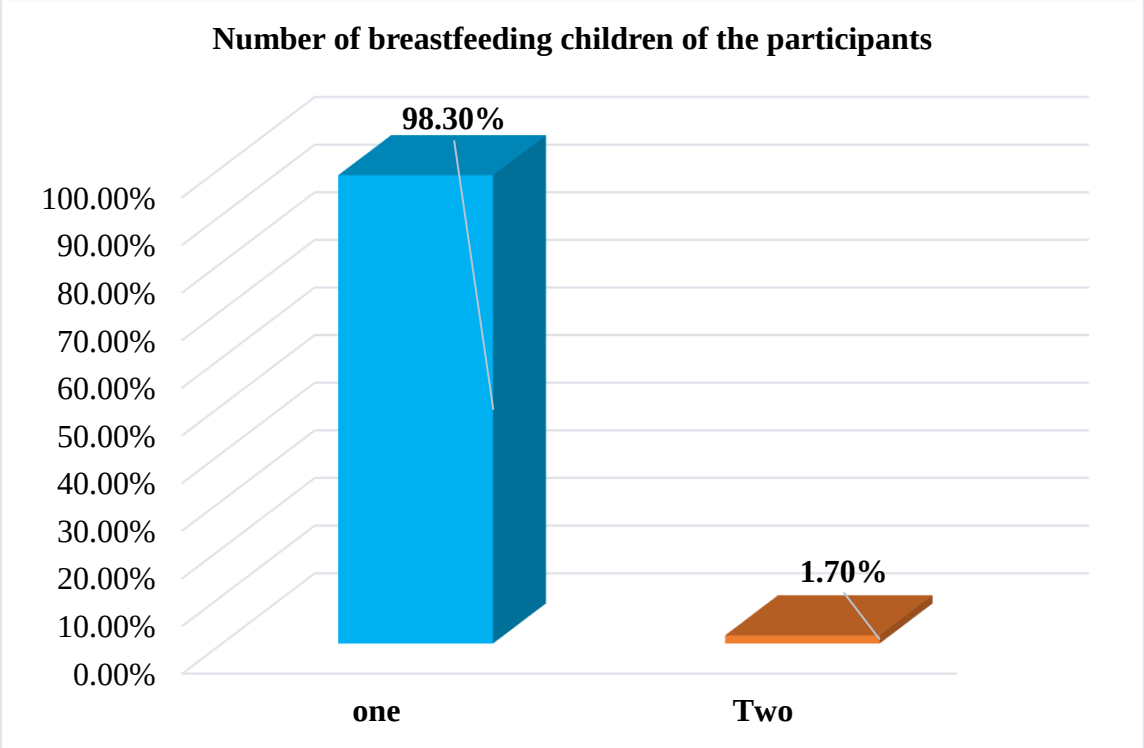


Fig no:9- Number of children of the participants

4.2.3: weight of breastfeeding children of the participants:

About this study of participant weight of breastfeeding children 161(6%) were 5-10kg;49(22.3%) were less than 5 kg;32(13.2%) was more than 10 kg.

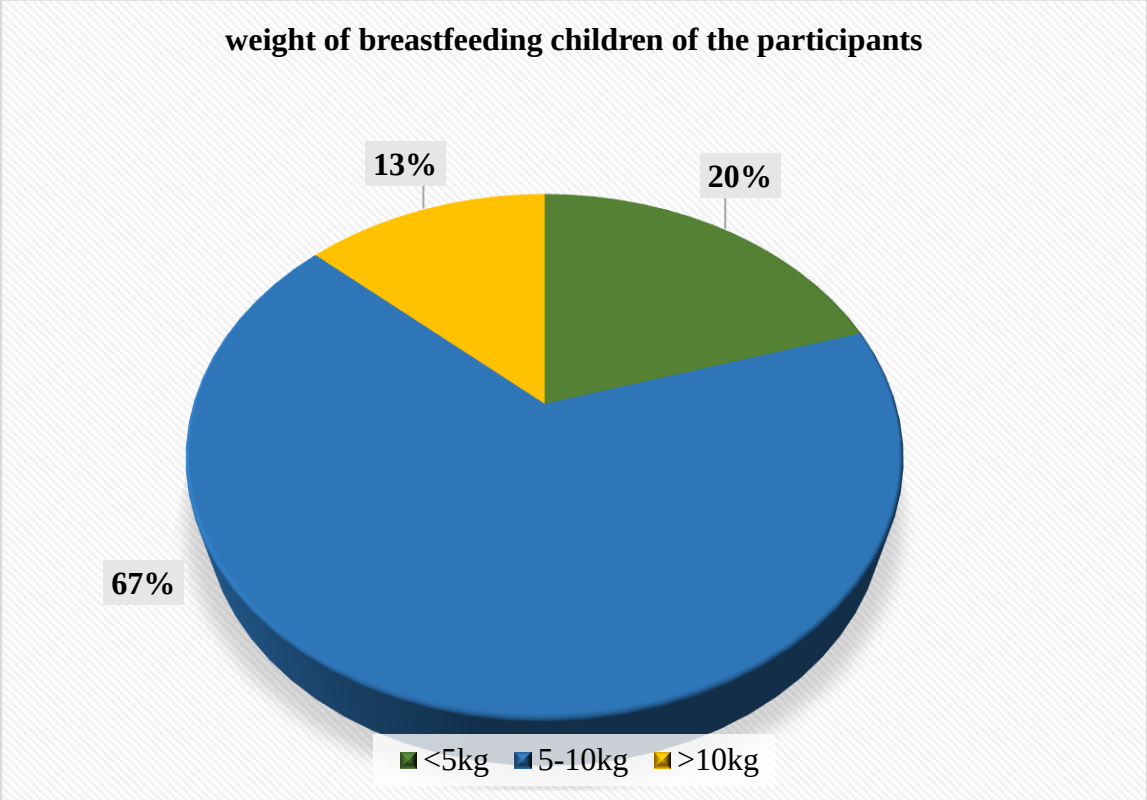


Fig no:10- weight of breastfeeding children of the participants

4.2.4: prolongation of breastfeeding children of the participants:

About this study prolongation of breastfeeding of 105(43.40%) children were more than 6 months; 59(24.40%) children were 4-6 months; 20.20% children were 1-3 months and 29(12.00%) children were less than one month of the participants.

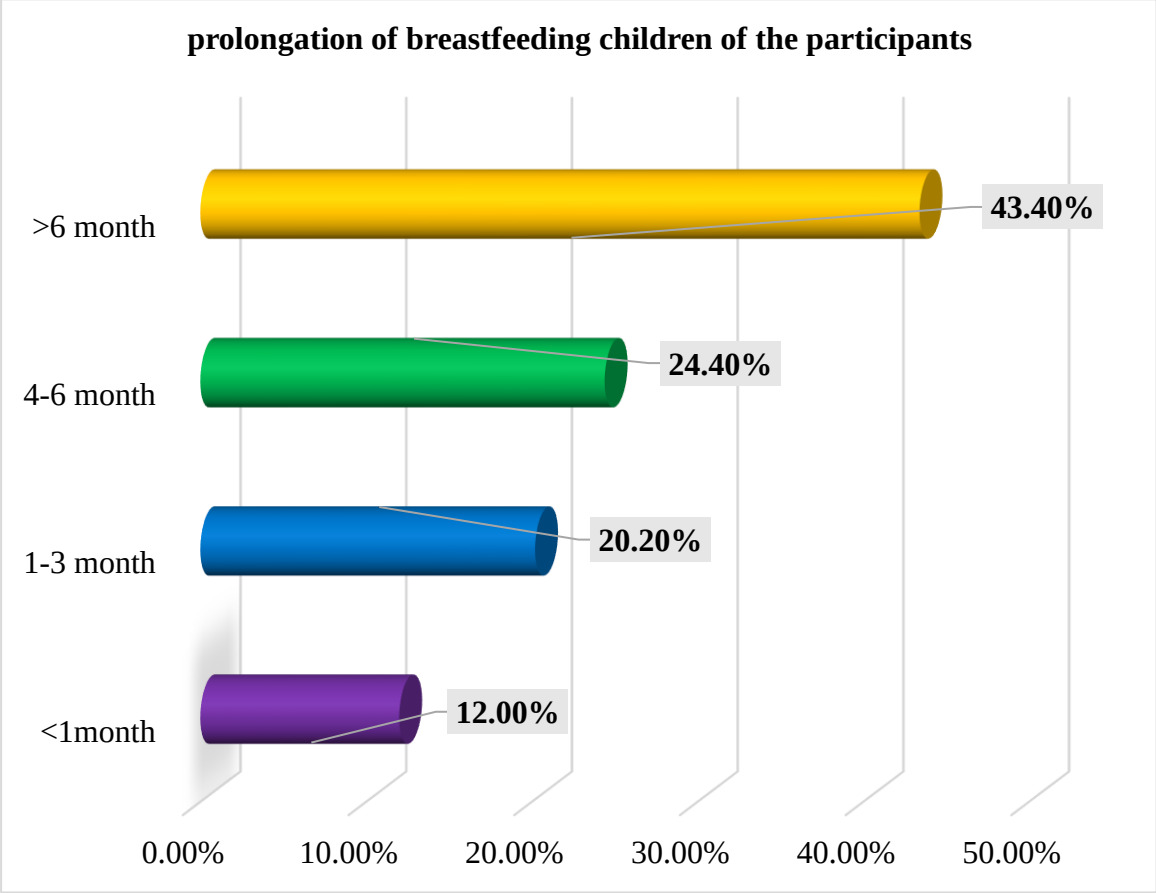


Fig no:11- prolongation of breastfeeding children of the participants

4.2.5: Daily times of breastfeeding of the participants:

This chart shows that 18(7.40%) of participants were daily breastfeeding to their child less than 5 times; 207(85.50%) of participants were daily breastfeeding to their child 5-10 times and 17(7.00%) of participants were daily breastfeeding to their child more than 10 times.

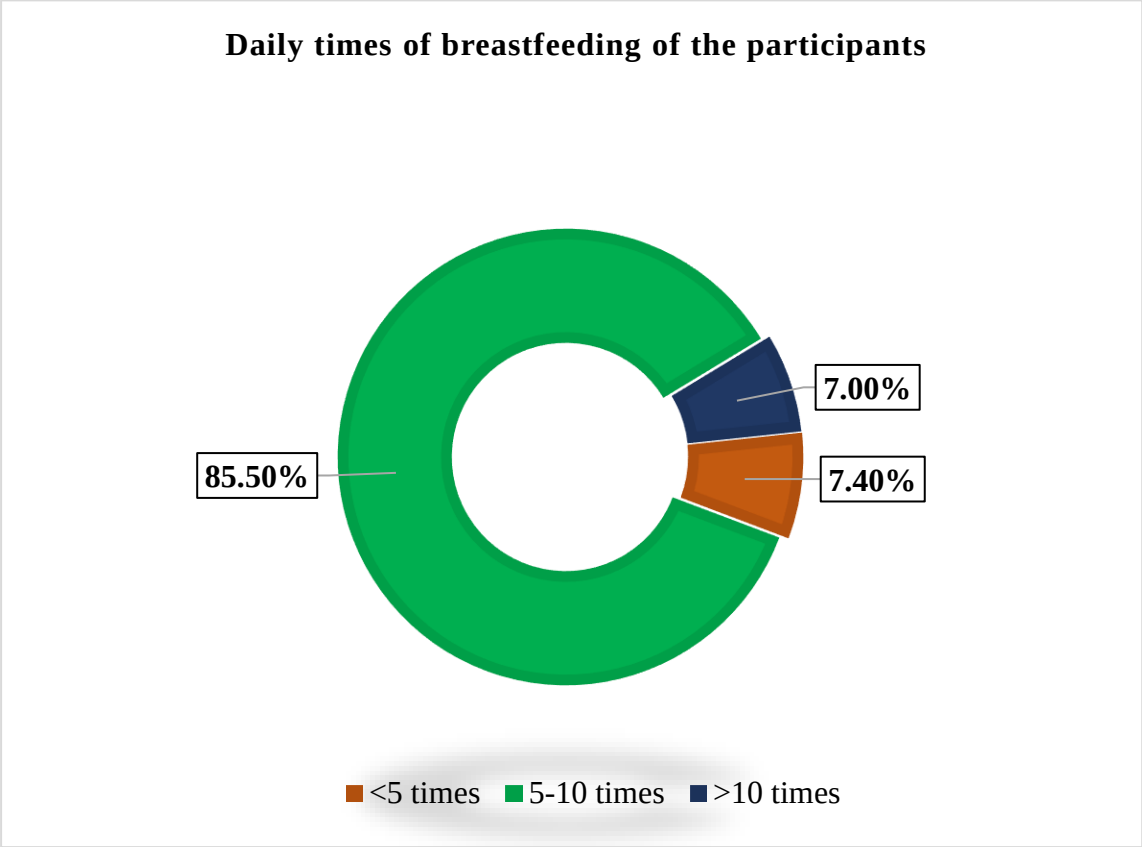


Fig no:12- Daily times of breastfeeding of the participants

4.2.6: Duration of breastfeeding of the participants:

About this study duration of breastfeeding of 12(5.00%) children were less than 5 minutes; 228(94.40%) children were 5-10 minutes and 2(0.80%) children were more than 10 minutes of the participants.

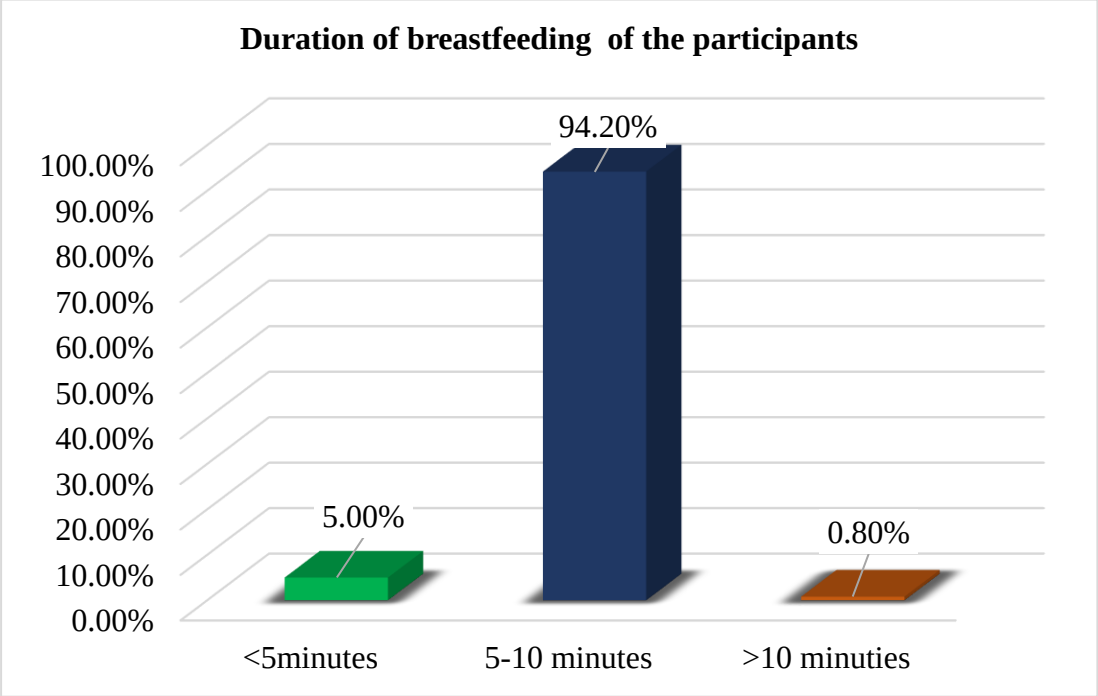


Fig no:13- Duration of breastfeeding of the participants

4.2.7: Position of breastfeeding time of the participants:

About this study position of breastfeeding time,1.70% were forward bending position; 0.80% were half lying position; 22.70% were sitting position and 74.80% were lying position.

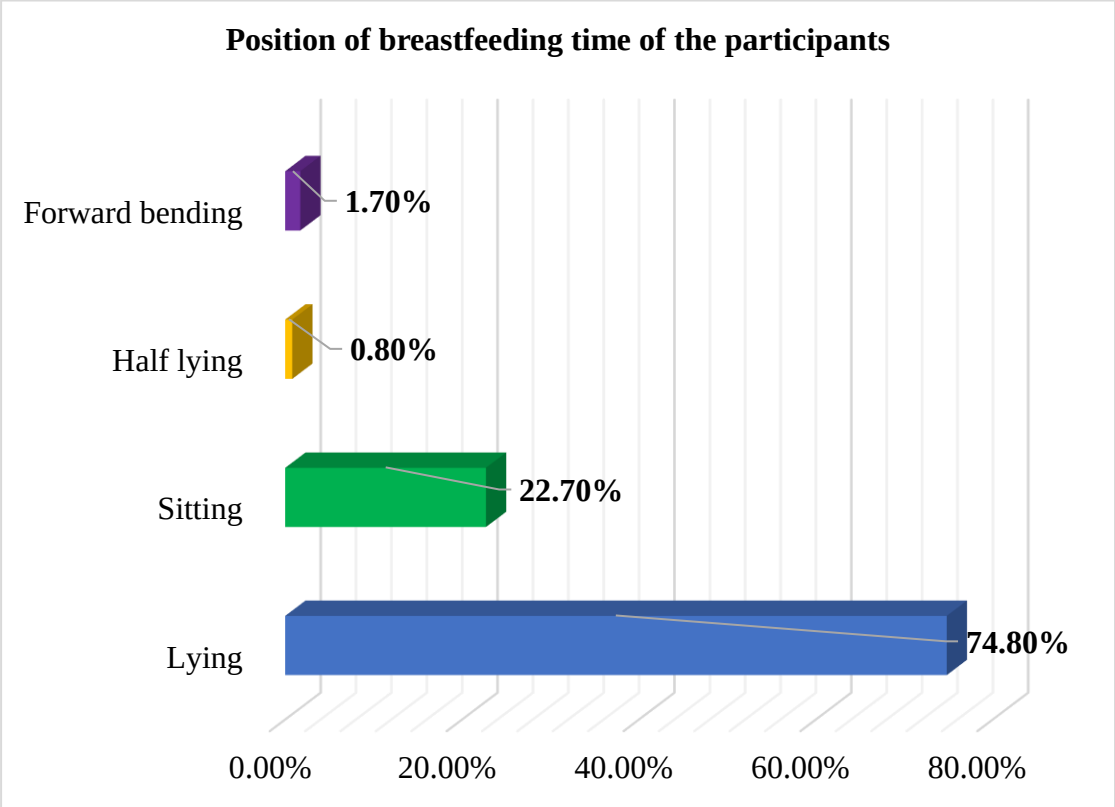


Fig no:14- Position of breastfeeding time of the participants

4.3: Neck pain characteristics:

4.3.1: Neck pain of the participants:

A total of 242 participants were respondents. Among them 139(57.40%) were pain positive and 103(42.60%) were negative response of the participant.

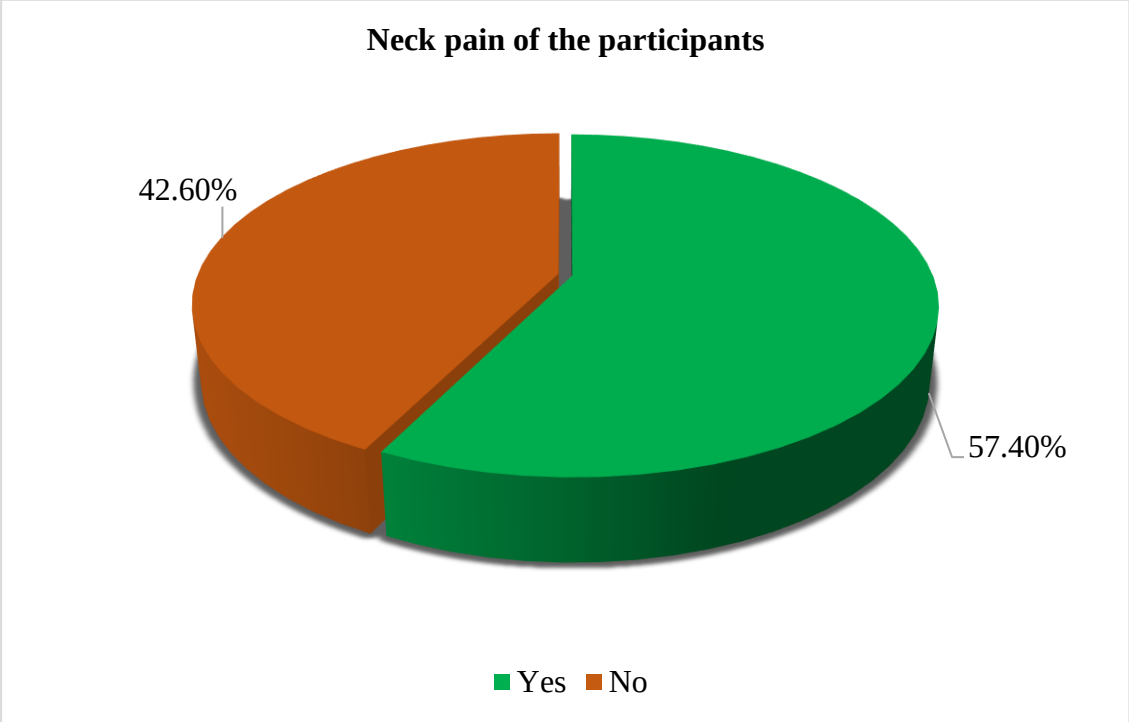


Fig no:15- Neck pain of the participants

4.3.2: Severity of pain of the participants:

A total of 139(57.4%) participants were respondents to pain. Among them 76(31.40%) were mild pain, 47(19.40%) were moderate pain and 16(6.60%) were severe pain.

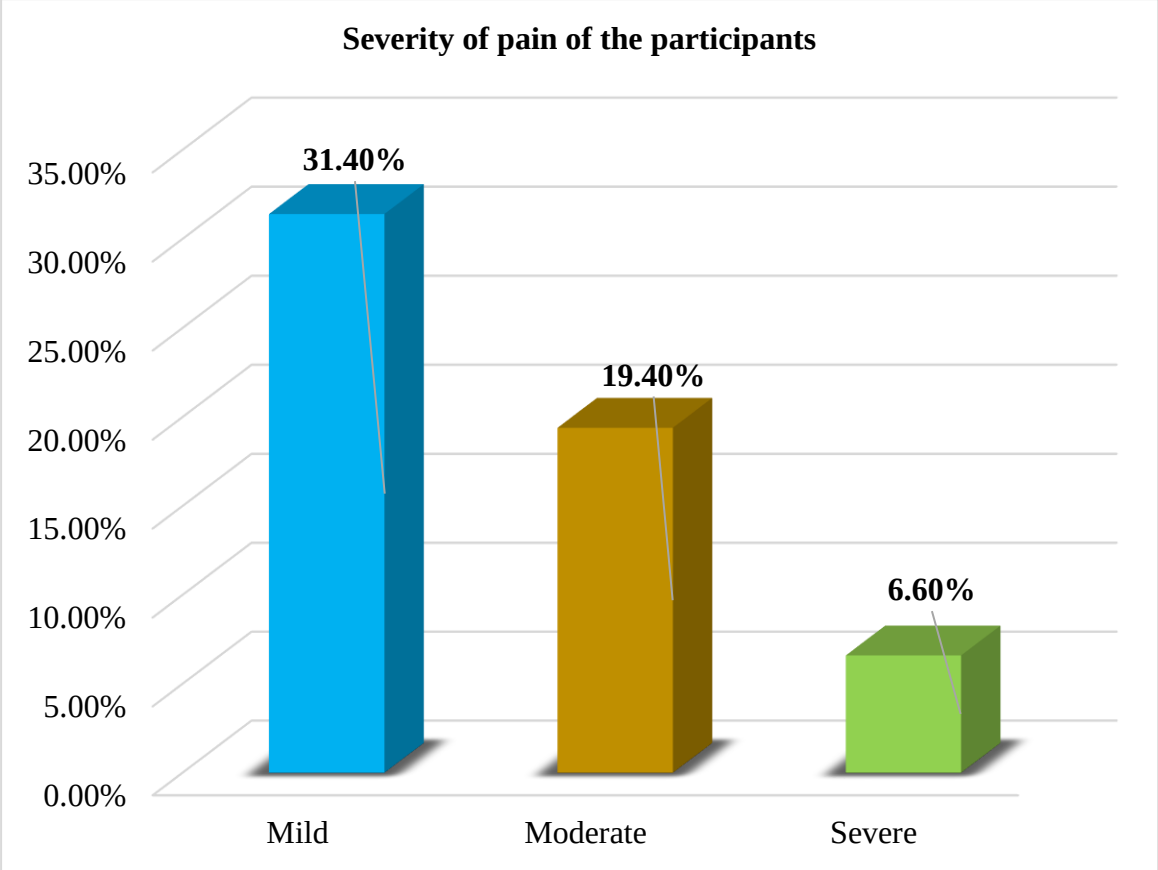


Fig no:16- : Severity of pain of the participants

4.3.3: Duration of pain of the participants:

In this study, 55(22.70%) of participants suffered from pain more than 3 months and 84(34.70%) of participants suffered from pain less than 3 months.

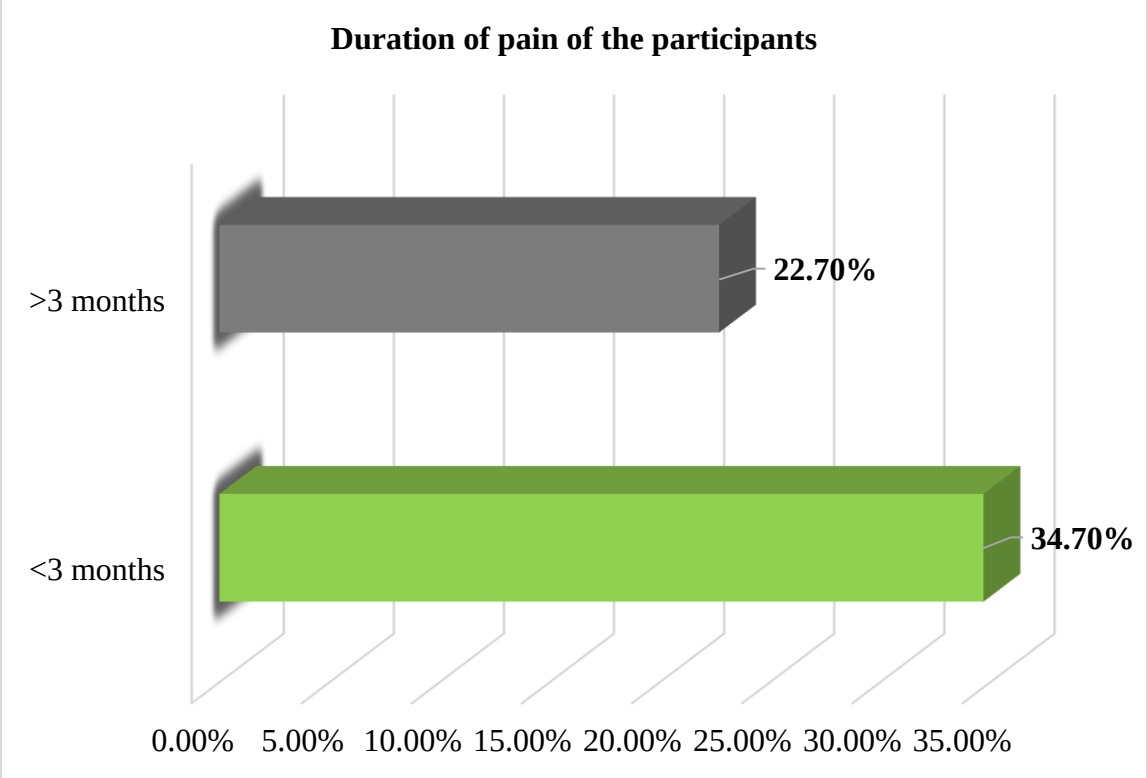


Fig no:17- Duration of pain of the participants

4.3.4: Types of pain of the participants:

This chart shows that 131(54.10%) of participants were intermittent pain and 8(3.30%) of participants were continuous.

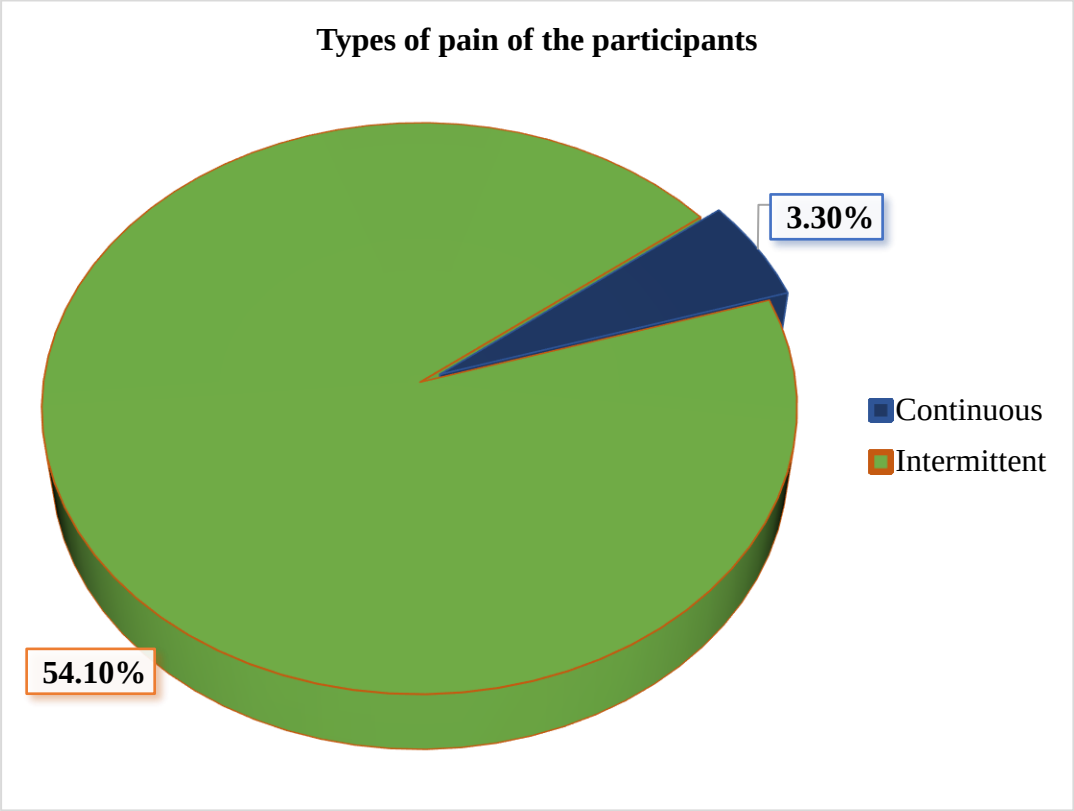


Fig no:18- Types of pain of the participants

4.3.5: Onset of sign and symptoms of the participants:

Among 139(57.4 %) of participants suffered from pain. This chart shows that onset of sign and symptoms of participants 129(53.30%) had felt sudden pain, 10(4.10%) had felt gradual pain.

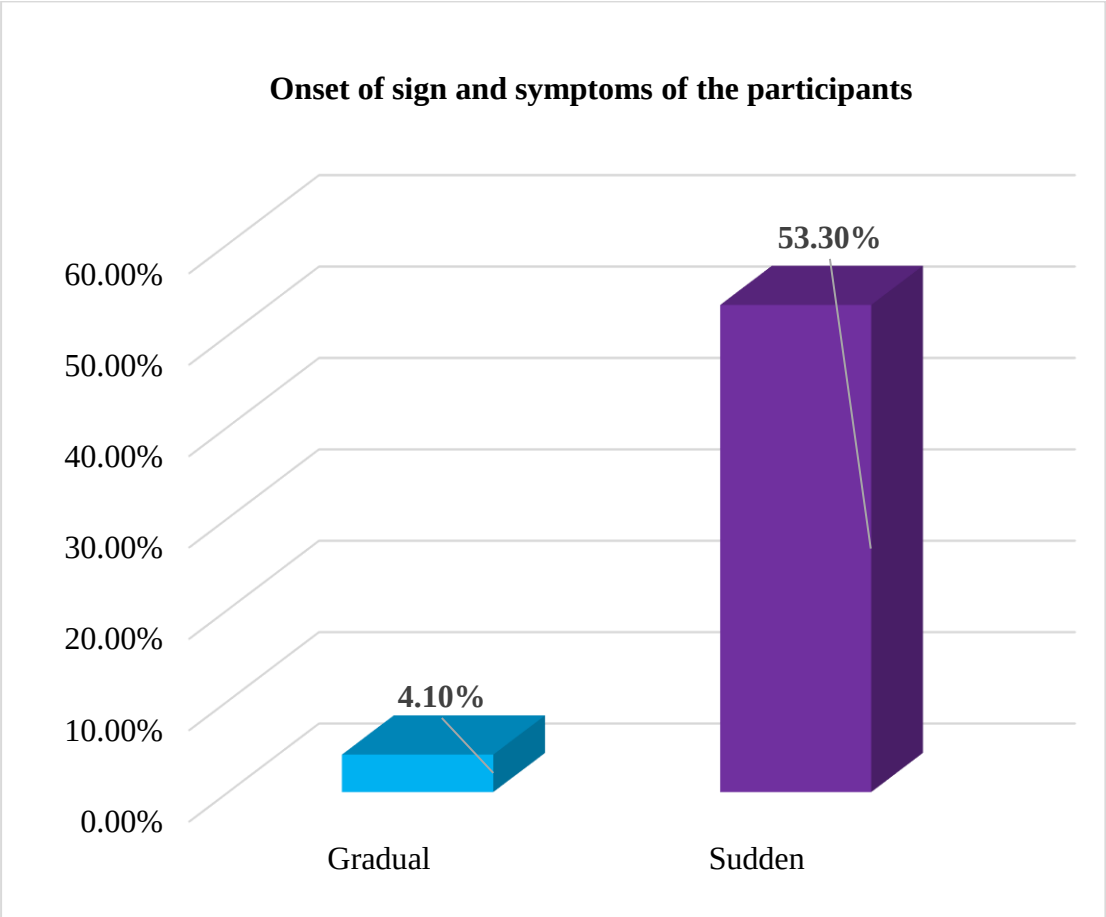


Fig no:19- Onset of sign and symptoms of the participants

4.3.6: Nature of pain of the participants:

This figure shows that 117(48.30%) of participants had a dull aching pain; 13(5.40%) of the participants' sharp pain ;4(1.70%) of the participants shooting pain and 5(2.10%) of the participants burning pain**.**

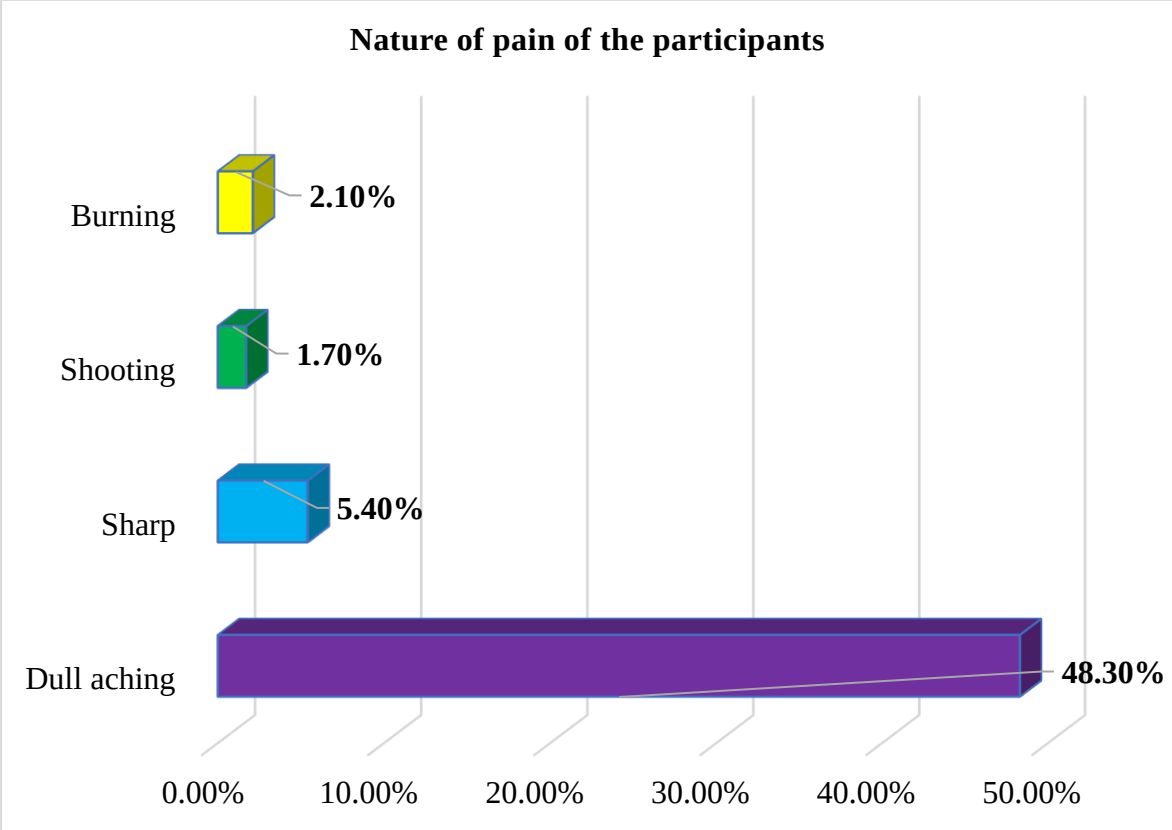


Fig no:20- Nature of pain of the participants

4.3.7: Referred pain of the participants:

The figure shows that 26(10.70%) of the participant had referred pain symptoms and the rest of the 113(46.70%) has no referred pain.

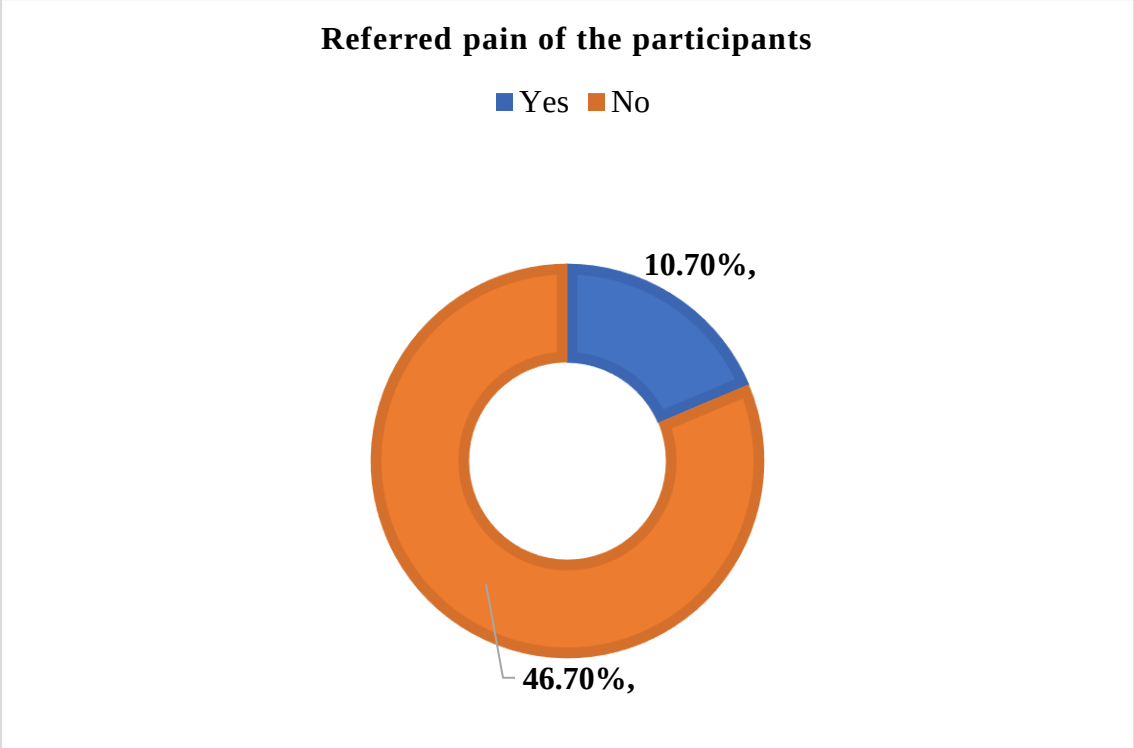


Fig no:21- Referred pain of the participants

4.3.7.1: Referred pain on right arm of the participants:

The figure shows that referred pain on right arm 13(5.40%) were positive and 126(52.10%) respondents were negative.

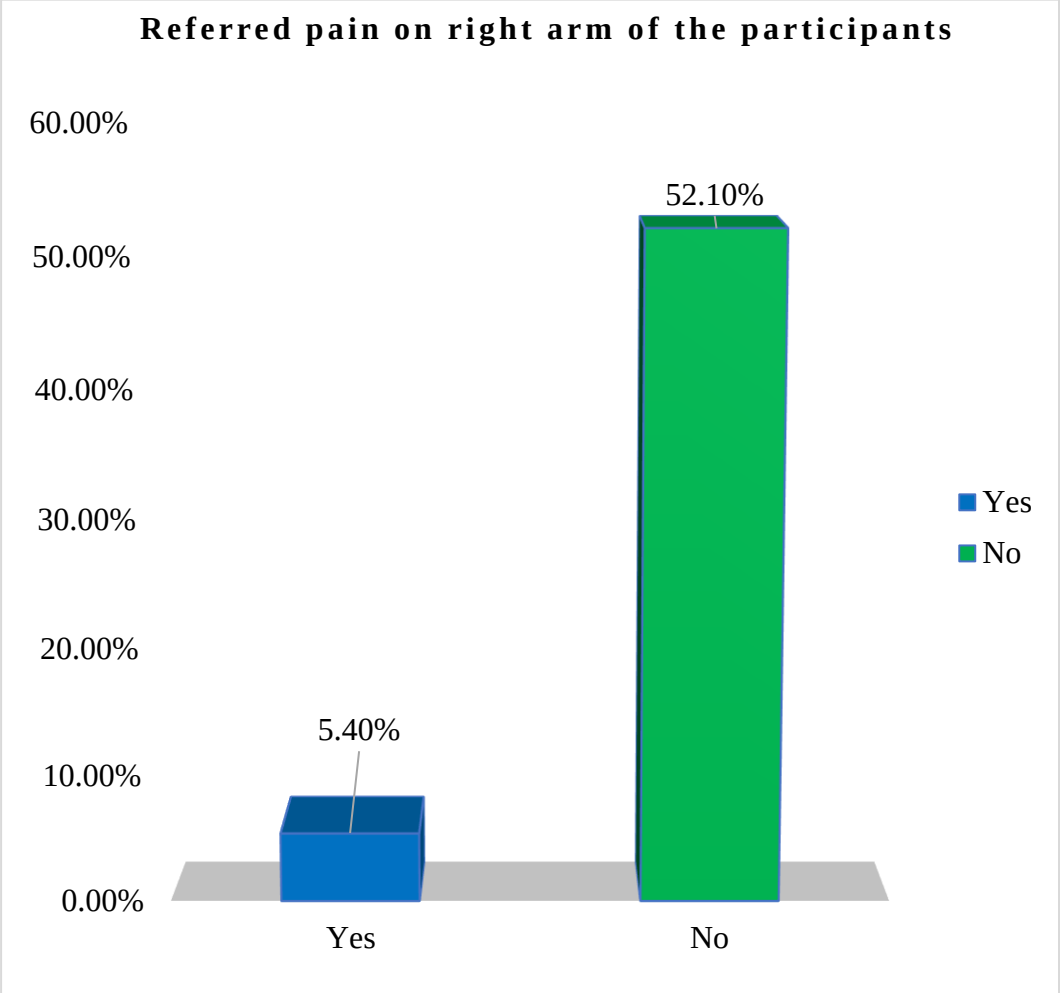


Fig no:22- Referred pain on right arm of the participants

4.3.7.2: Referred pain on left arm of the participants:

The figure shows that referred pain on left arm 7(2.90%) were positive and 132(54.50%) respondents were negative. (Fig 23).

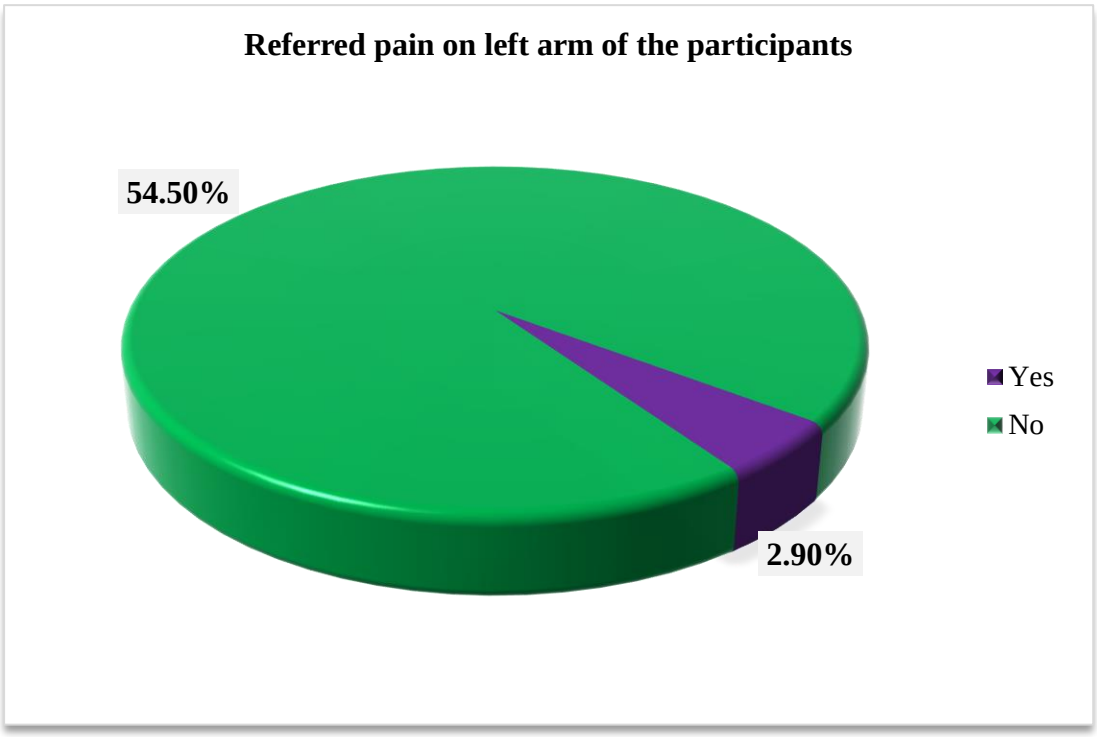


Fig no:23- Referred pain on left arm of the participants

4.3.7.3: Referred pain in other areas of the participants:

The figure shows that referred pain on others area 8(3.30%) were positive and 131(54.10%) respondents were negative.

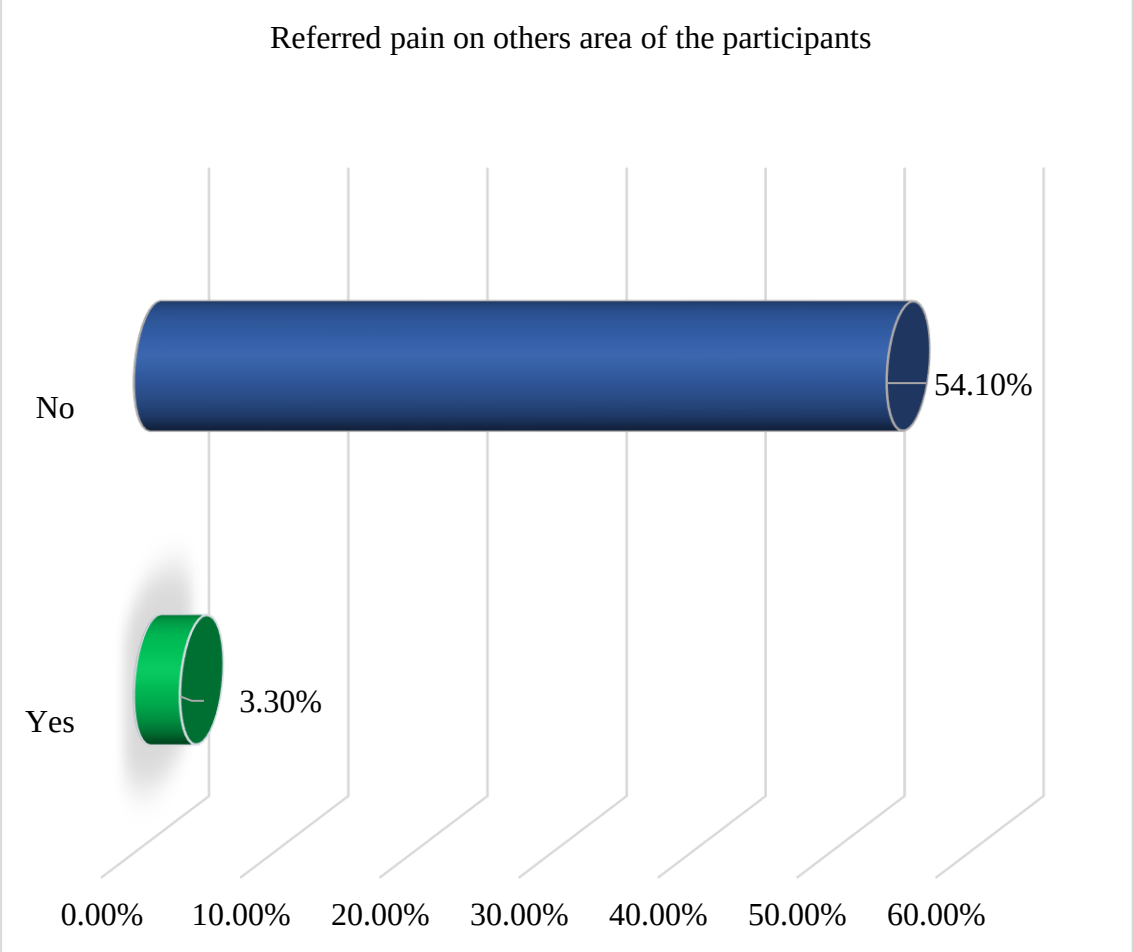


Fig no:24- Referred pain on others area of the participants

4.3.8: Interfering with daily activities of the participants:

This chart shows interfering with daily activities that 24(9.90%) of participants respondents positive and that 115(47.50%) of participants respondents negative.

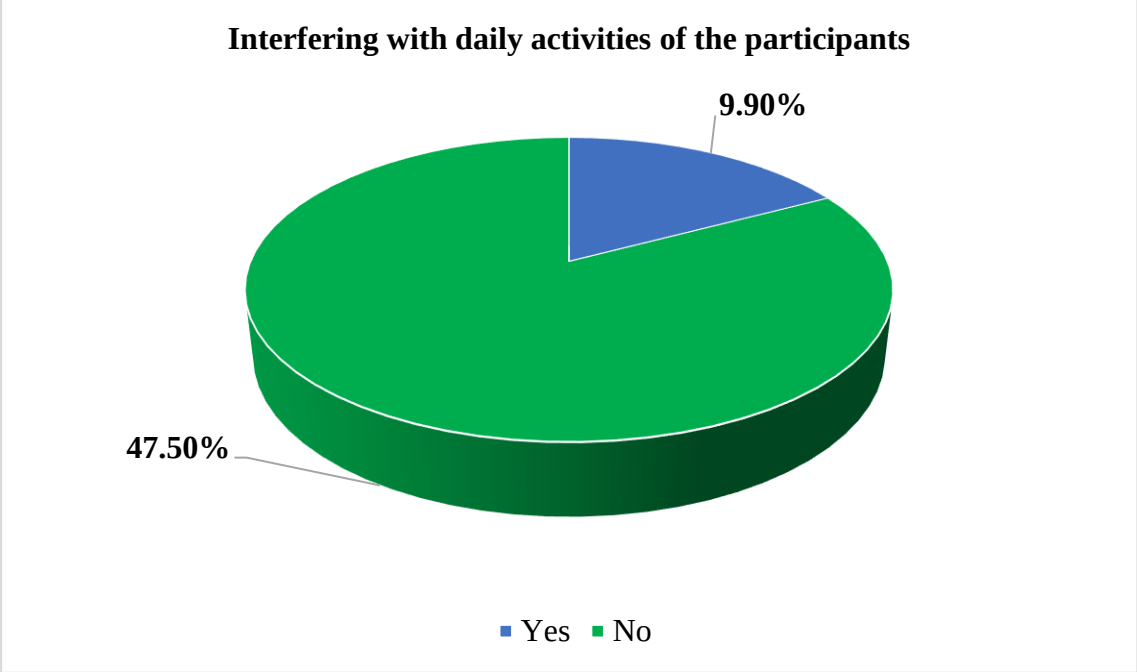


Fig no:25- Interfering with daily activities of the participants

4.3.9: Time of occurrence of neck pain of the participants:

The table shows that 83(34.3%) respondents were neck pain during breastfeeding 8(3.3%) after breastfeeding, 48(19.8%) during and after breastfeeding.

Table no: 02- Time of occurrence of neck pain of the participants

Variables	**Frequency**	
	N	**%**
During breastfeeding	83	34.3
After breastfeeding	8	3.3
During and After breastfeeding	48	19.8

4.3.10: Feeling better of the participants:

This chart shows that feeling better during resting time 137(56.60%) and during working time 2(0.80%) of the participants.

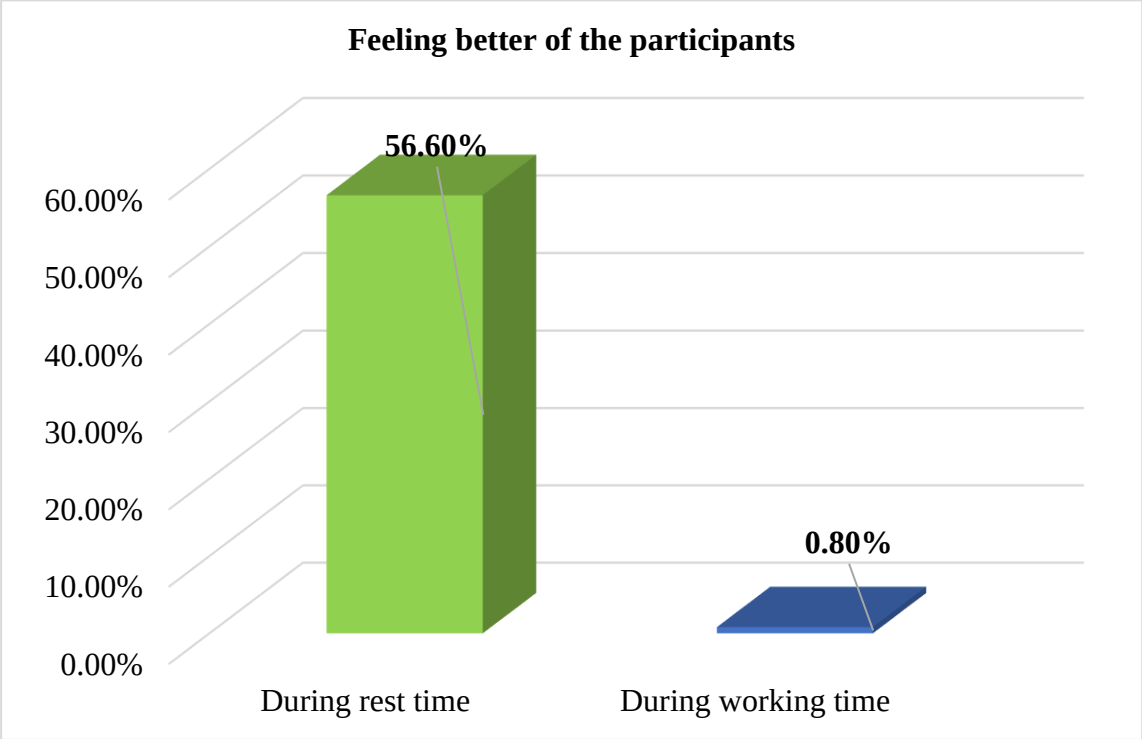


Fig no:26- Feeling better of the participants

4.3.11: Taking any treatment of the participants:

In this survey, we found that 96(57.4%) of lactating mother participants were suffered from neck pain. This table shows that only 21(8.7%9 of the participant were taking treatment and they treat their illness by medication 19(7.9%), physiotherapy 1(0.4%,) other 1(0.4%) and118(48.8%) participants were not taking any treatment.

Table no: 03- Taking any treatment of the participants

Variables	Frequency	
	N	%
Taking any treatment of participant:		
Yes	21	8.7%
No	118	48.8%
If the answer “Yes” types of treatment are		
Medication	19	7.9%
Physiotherapy	1	0.4
Other	1	0.4

4.4. Association between the position of breastfeeding and neck pain.

Regarding about frequency distribution of the participants by neck pain and position of breastfeeding, it was found that position of breastfeeding of 181 lactating mothers was lying. Among them, 96(53.0%) participants had neck pain and 85(47.0%) participants had no neck pain. In case of sitting position of breastfeeding, out of 55 mothers 37(67.3%) had neck pain and 18 (32.7%) had no neck pain. The association between neck pain and position of breastfeeding was statistically significant (X2=8.055, df=3, p=0.045).

Table no 4: Frequency distribution of participants by neck pain and position of breastfeeding

Position of the participants	Neck pain of participants		Total	
	Yes	No	N	%
Lying	96 (53.0%)	85 (47.0%)	181	74.8
Sitting	37 (67.3%)	18 (32.7%)	55	22.7
Half lying	2 (100.0%)	0	2	0.8
Forward bending	4 (100.0%)	0	4	1.7
Total	139 (57.4%)	103 (42.6%)	242	100%

X^2=8.055, df=3, p=0.045

CHAPTER – V DISCUSSION

This study aims to provide a comprehensive survey of neck pain among lactating mothers in Dhaka city. This study's participant means and standard deviation of participant age where are Mean ±SD= 25.31±4.504; About (50.8%) lactating mothers age 18-25 years; (38.8%) age 26-30 years; (8.7%) age 31-35 years; and (1.7%) more than 36 years. Another similar study found that their mean and SD were 29.0 ±4.96 years. (Mbada et al.,2013).

This study shows that, the majority of them (91.70%) of lactating mothers' occupations were housewife, only seven percent (7%) were doing job holder and (1.20%) were doing other occupations. Another study found was self-employed (62.9%); (Ojukwu et al., 2022).

About this study, a total of 242 participants were respondents. Among them, 98.80% were married and 1.20% were divorced. And the similar study was found that married (94%) and single (6%). (Ojukwu et al., 2022).

This survey shows that around ninety-five-point nine-zero percent (95.90%) religion Islam; four-point ten percent (4.10%) Hindu. Another survey among that, Christian (96.6%), Islam (1.7%), Traditional religion (0.9%) and Others (0.9%). (Mbada et al.,2013).

About this study of the participant number of children (4.10%) were more than three children; (13.20%) were three children; (34.30%) were two children; (48.30%) were one child.
Another study found that one child (35.3%), two children (55.2%), more than five (9.5%). (Ojukwu et al., 2022).

This study shows that, A total of 242 participants were respondents. Among them 98.30% were one child breastfeeding and 1.70% were two children breastfeeding of the participant. Another study was found that one child (37.9%), two to four children (53.4%), more than five children (8.6%). (Ojukwu et al., 2022).

About this study of participant weight of breastfeeding children (67%) were 5-10kg;
(20%) were less than 5 kg;(13%) were more than 10 kg. Another study found that less than 5 kg (26.7%), 5-10 kg (58.6%), more than 10kg (14.7%). (Ojukwu et al., 2022).

This survey finds that prolongation of breastfeeding of 43.40% children were more than 6 months; 24.40% children were 4-6 months; 20.20% children were 1-3 months and 12.00% children were less than one month of the participants. And another study found that 1-3 months (53.4%), 4-6 months (23.3%), 7-10 months (13.8%) and more than 10 months (9.5%). (Ojukwu et al., 2022).

This study shows that 7.40% of participants were daily breastfeeding to their child less than 5 times; 85.50% of participants were daily breastfeeding to their child 5-10 times and 7.00% of participants were daily breastfeeding to their child more than 10 times. Another 1-3 times (12.9%), 4-6 times (7.8%), 7-9 times (23.3%) and more than 10 times (56.0%). (Ojukwu et al., 2022).

About this study duration of breastfeeding of 5.00% children were less than 5 minutes; 94.40% children were 5-10 minutes and 0.80% children were more than 10 minutes of the participants. Another study found that less than 30 minutes (49.1%), 30-60 minutes (41.4%), more than 60 minutes (8.6%). (Ojukwu et al., 2022).

About this study position of breastfeeding time,1.70% were forward bending position; 0.80% were half lying position; 22.70% were sitting position and 74.80% were lying position. Another study shows that Commonly adopted BF positions Cradle hold (94.0%), Cross-cradle hold (4.3%), Football hold (0.9%). (Ojukwu et al., 2022).

A total of 242 participants were respondents. Among them 57.40% were pain positive and 42.60% were negative response of the participant. Another study was found that Neck pain 51.7% were positive. 48.3% were negative. (Ojukwu et al., 2022).

A total of 57.4% participants were respondents to pain. Among them 31.40% were mild pain, 19.40% were moderate pain and 6.60% were severe. Another study was found that Severity of pain Mild (38.3%), Moderate (55.0%), Severe (6.7%) pain. (Ojukwu et al., 2022).

The study shows that (34.3%) respondents were neck pain during breastfeeding (3.3%) after breastfeeding, (19.8%) during and after breastfeeding. Another study was found During breastfeeding (60%), After breastfeeding (23.3%), During and after breastfeeding (6.7%). (Ojukwu et al., 2022).

In this survey, we found that 57.4% of lactating mother participants were suffered from neck pain. This table shows that only 8.7% of the participant were taking treatment and they treat their illness by medication 7.9%, physiotherapy 0.4%, other 0.4% and 48.8% participants were not taking any treatment. Another study found was Among the respondents, 86.1% sought treatment for BPRMSP, 53.6% used medications, 31.8% sought intervention from health care workers, while 13.9% sought no treatment at all for their BPRMSP. (Mbada et al.,2013).

In this study This survey find that the chi-value was 0.045 and the P-value was 0.016. So, there is significant association between position of breastfeeding and neck pain of the participants.

CHAPTER – VI LIMITATIONS

The study should be considered in light of the following limitations: As a student, this study was conducted by my fund, so there might be some limitations to the financial aspect of this study. The findings of the study were not generalized to the wider population. The most easily accessible participants were collected from the different areas in Dhaka and it does not cover all the lactating mother population. This small number of samples is not enough to generalize the result. This took less time to carry out this study and this calculated sample could not be taken. In the study, data was collected from some areas of Dhaka city. If the investigator had more time, it could, it may make the result more valid and reliable. This study does not respondent the whole population in-country. Few researchers have done this before on this topic area. So, there was little evidence to support the result of the study. This research is a part of my academic study purpose and I am not an expert on statistical analysis. As it was a new topic area it was difficult to collect appropriate information about the topic area, especially from the perspective of Bangladesh. The interview scheduled survey and interviewing skills were not adequate to get deeper information from the participants, as it was the first attempt by the researcher.

CHAPTER – VII CONCLUSION AND RECOMMENDATION

6.1 Conclusion

This study aims to provide a comprehensive survey of neck pain among lactating mothers in Dhaka. This study focused on neck pain symptoms of the lactating mother. Neck pain has a great impact causing severe long-term pain for the mother when they feed their child. The investigator used a questionnaire. Each Participant was given a questionnaire to identify the neck pain in lactating mothers. From the database, it was found that (57.40%) of participants had neck pain. There is a high prevalence of BFRNP among breastfeeding mothers. In addition, since this sample size was small, to generate adequate evidence to support decision-making processes at the national level, there should be more studies among lactating mothers in Dhaka city. Appropriate, adequate, and timely information is needed to build awareness among them.

6.2 Recommendation

The purpose of the study was to estimate the Neck pain among the lactating mothers of Dhaka city. In this study researcher only took the lactating mother participant from Dhaka to show the ratio of neck pain among the lactating mothers. However, due to time limitations, the investigator was not able to gather a huge number of participants and this result cannot be generalized all over Dhaka city. So, for further study, it is strongly recommended to increase the sample size to generalize the result in all of the lactating mothers of Dhaka city. This study can be considered as a groundwork for the physiotherapy service provision for lactating mothers with symptoms they usually suffer. Proper physiotherapy can reduce symptoms and prevent post-complications. These cannot cover all aspects of the vast area. So, it is recommended that the next generation of physiotherapy members continue to study this area as well as different areas such as common neck pain, the effectiveness of physiotherapy for postural pain, and common physiotherapeutic interventions to reduce complications. The Government and NGOs should be aware of the third gender about the effectiveness of physiotherapy and should take the necessary steps.

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Appendix – A

Institutional Review Board (IRB) Permission Letter

SAIC COLLEGE OF MEDICAL SCIENCE AND TECHNOLOGY
Approved by Ministry of Health and Family Welfare
Affiliated with Dhaka University

Ref : *Date :* .....

Ref.No: *SCMST/PT/ERB-2017-18/1-2023/39*

3rd January'2023

To

Shamima Nasrin Shimu

4th Professional B.Sc. in Physiotherapy

Saic College of Medical Science and Technology (SCMST)

Mirpur-14, Dhaka-1216.

Sub: Permission to collect data

Dear Shimu,

Ethical review board (ERB) of SCMST pleased to inform you that your proposal has been reviewed by ERB of SCMST and we are giving you the permission to conduct study entitled "Posture related neck pain among the lactating mother in residential area of Dhaka city" and for successful completion of this study you can start data collection from now.

Wishing you all the best.

Thanking You,

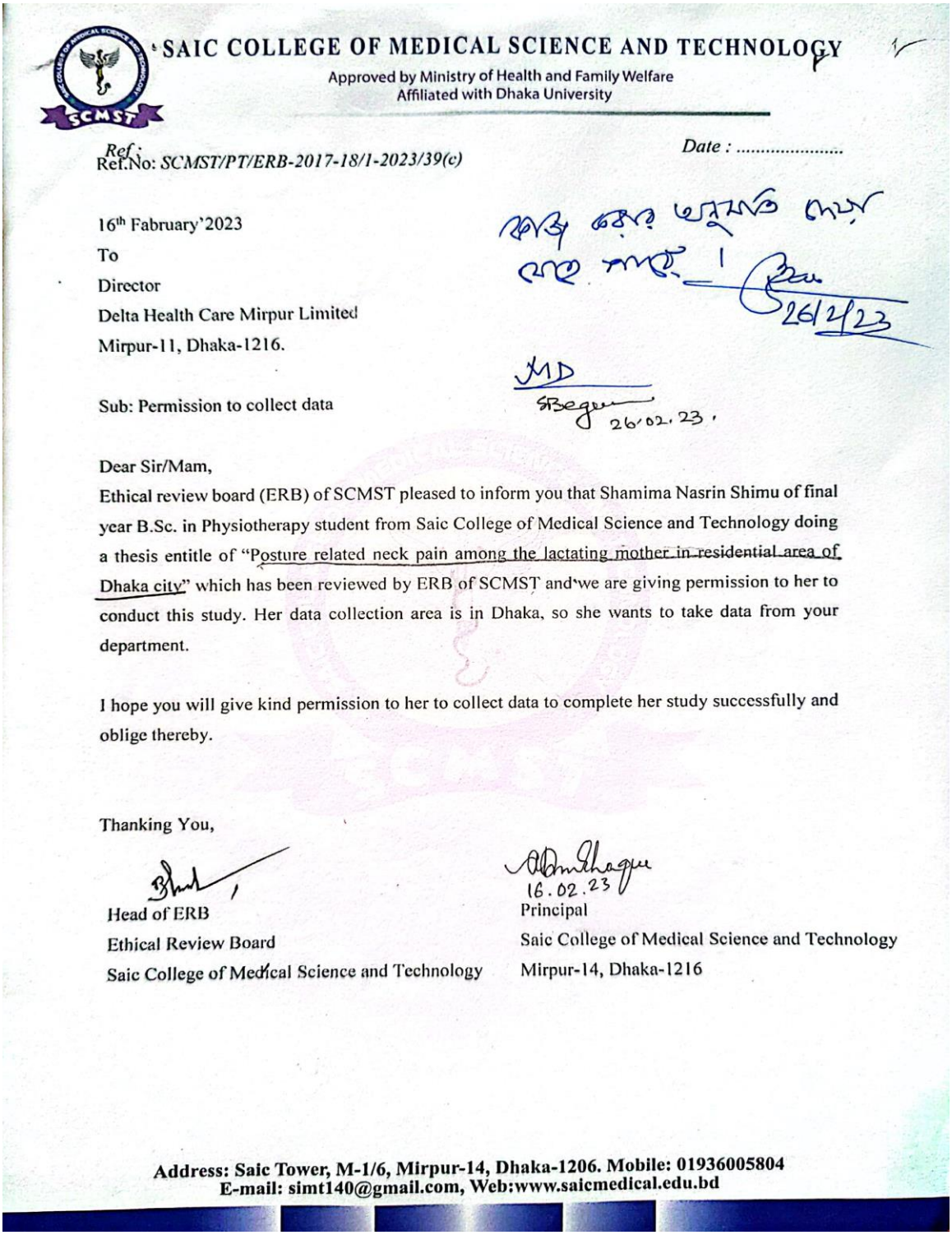
11.01.'23
Head of ERB
Ethical Review Board
Saic College of Medical Science and Technology

11. 01. 23
Principal
Saic College of Medical Science and Technology
Mirpur-14, Dhaka-1216

Address: Saic Tower, M-1/6, Mirpur-14, Dhaka-1216.Mobile:01936005804
E-mail: simt140@gmail.com, Web:www.saicmedical.edu.bd

Appendix – B

Permission letter for data collection



SAIC COLLEGE OF MEDICAL SCIENCE AND TECHNOLOGY

Approved by Ministry of Health and Family Welfare
Affiliated with Dhaka University

Ref.No: SCMST/PT/ERB-2017-18/1-2023/39(c)

Date : .....

16th Fabruary'2023

To
Director
Delta Health Care Mirpur Limited
Mirpur-11, Dhaka-1216.

Sub: Permission to collect data

Dear Sir/Mam,

Ethical review board (ERB) of SCMST pleased to inform you that Shamima Nasrin Shimu of final year B.Sc. in Physiotherapy student from Saic College of Medical Science and Technology doing a thesis entitle of "Posture related neck pain among the lactating mother in residential area of Dhaka city" which has been reviewed by ERB of SCMST and we are giving permission to her to conduct this study. Her data collection area is in Dhaka, so she wants to take data from your department.

I hope you will give kind permission to her to collect data to complete her study successfully and oblige thereby.

Thanking You,

Head of ERB
Ethical Review Board
Saic College of Medical Science and Technology

Principal
Saic College of Medical Science and Technology
Mirpur-14, Dhaka-1216

Address: Saic Tower, M-1/6, Mirpur-14, Dhaka-1206. Mobile: 01936005804
E-mail: simt140@gmail.com, Web:www.saicmedical.edu.bd

BANGLADESH COUNCIL FOR CHILD WELFARE-BCCW
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E-mail: shishukallyanparishad@gmail.com, Website : www.bccw-bd.org

ফা-ভি-০৮/বাশিকপ২০০৬(প্রশাসন)-অংশ-২-প-৫৭

তারিখ : ০৬-০২-২০২৩

বরাবর
অধ্যক্ষ
সাইক কলেজ অব মেডিকেল সায়েন্স এন্ড টেকনোলজি
সাইক টাওয়ার, এম-১/৬, মিরপুর # ১৪
ঢাকা-১২১৬।

বিষয় : ডাটা কালেকশনের অনুমতি প্রসঙ্গে।
সূত্র : SCMST/ PT/ ERB/2017-18/1-2023/39, Date : 01-02-2023

উপর্যুক্ত বিষয়ে সূত্রোল্লিখিত পত্রের বর্ণনা মতে আপনার প্রতিষ্ঠানের শিক্ষার্থী **শামীমা নাসরিন শিমুকে** বাংলাদেশ শিশু কল্যাণ পরিষদ পরিচালিত ফিরোজা বারি প্রতিবন্ধী শিশু হাসপাতালে "Posture related neck pain among the lactating mother in residential area of Dhaka City'' উপর ডাটা কালেকশনের জন্য সম্মতি জ্ঞাপন করা হলো। এক্ষেত্রে প্রতিষ্ঠানের পক্ষ থেকে কোনরূপ ভাতা বা সম্মানী প্রদান করা হবে না এবং প্রতিষ্ঠান কর্তৃক নির্ধারিত সময় ও নিয়ম নীতি অবশ্যই মেনে চলতে হবে। এতদসংশ্লিষ্ট যাবতীয় বিষয়ে পরবর্তী ব্যবস্থাদি সম্পাদনের জন্য মিসেস ইয়াসমিন আরা ডলি, পরিচালক, বাশিকপ-এর সাথে (**02223384257**-Ex-107) যোগাযোগ করার অনুরোধ জানানো হলো।

ধন্যবাদান্তে

মোহাম্মদ মনিরুল আলম
সাধারণ সম্পাদক, বাশিকপ

অনুলিপি
১. মিসেস ইয়াসমিন আরা ডলি, পরিচালক, বাশিকপ এবং চিফ ফিজিওথেরাপিস্ট ও ট্রেনিং কো-অর্ডিনেটর, ফিরোজা বারি প্রতিবন্ধী শিশু হাসপাতাল
২. অফিস কপি

Appendix – C

সম্মতিপত্র (bangla)

উত্তর দাতার আইডি নাম্বার

প্রিয় অংশগ্রহনকারী

আমি শামিমা নাসরিন শিমু সাইক কলেজ অব মেডিকেল সায়েন্স এন্ড টেকনোলজি এর বিএসসি ইন ফিজিওথেরাপী বিভাগের একজন ছাত্তী। আমার বিএসসি ইন ফিজিওথেরাপী ডিগ্রি সম্পন্ন করতে গবেষণার অংশ হিসেবে ঢাকা শহরের অবশিষ্ট এলাকায় স্তন্যদানকারী মায়ের ঘাড়ের ব্যথা ভঙ্গি শিরোনামে একটি গবেষণার কাজ করছি। এখানে আপনার সামাজিক-জনতাত্তিক তথ্য এবং বুকের দুধ খাওয়ানোর সাথে সম্পর্কিত ঘাড় ব্যথা সমস্যা সম্পর্কিত কিছু প্রশ্ন দেয়া আছে যা আপনাকে পুরন করতে হবে। আপনার নিজের দ্বারা দেয়া এই সাক্ষাতকার দিতে ১৫-২০ মিনিট সময় লাগবে। এখানে প্রশ্নাবলীর একটা তালিকা দেয়া আছে এবং আপনাকে প্রত্যেকটি প্রশ্নের উত্তর দিতে হবে ।এই গবেষণায় প্রাপ্ত তথ্য শুধু মাত্র শিক্ষা ক্ষেত্রে ব্যবহার করা হবে এবং অংশগ্রহণকারীর ব্যক্তিগত তথ্য সম্পূর্ণ গোপনীয়তার মধ্যে থাকবে, অন্য কোথাও প্রকাশ করা হবে না। গবেষণা চলাকালীন সময়ে অংশগ্রহনকারী কোনরকম দ্বিধা বা ঝুকি ছাড়াই যেকোনো সময় এটাকে বাদ দিতে পারবেন। আপনার একান্ত সহযোগীতা কামনা করছি।

অংশগ্রহনকারীর ঘোষনা

আমাকে এই গবেষণার জন্য আমন্ত্রন জানানো হয়েছে এবং সম্পূর্ণ প্রশ্ন গুলো পড়ে বুঝানো হয়েছে এবং আমি কোন ধরনের দ্বিধা ছাড়াই উত্তর দিয়েছি। আমি লক্ষ্য করেছি এই গবেষণায় আমার অংশগ্রহন সম্পূর্ণ স্বেচছায় এবং কোন রকম ঝুকি ছাড়াই আমি যেকোনো সময় এটাকে বাদ দিতে পারব। আমি এই গবেষণায় অংশগ্রহণে সম্পূর্ণ সম্মতি জ্ঞাপন করছি।

অংশগ্রহনকারীর নাম : ……..

স্বাক্ষর / টিপসই এবং তারিখ……

স্বাক্ষীর স্বাক্ষর……

Consent form (English)

Respondent ID no			

Dear participant.

I am shamima Nasrin shimu student of the B.sc in physiotherapy program in the Department of Physiotherapy at SAIC College of Medical Science and Technology affiliated by University of Dhaka conducting the study entitled **Posture related neck pain among the lactating mother in residual area of Dhaka city** as a part of my thesis work for the partial fulfillment of Bachelor degree. There is a list of questions you need to fill up which include socio-demographic and breast-feeding related neck pain problems. For spending your time to participate in this self-administered interview which will take around 15-20 minutes. There is a list of questionnaires and you need to fill up each answer. The information gained from this questionnaire will be used for academic purposes and will be kept confidential. Your participation in this study is voluntary and you have the right to withdraw from the interview without any clarification at any moment. You can ask any question to the researcher regarding the study to meet up your quarry. Looking forward to your kind cooperation.

Declaration of the participant

I have been answered in this survey. The foregoing information has been read to me and that has been answered to my satisfaction. I have noticed that my participation in this study is voluntary and I have the right to withdraw from the interview at any clarification. I give my consent voluntarily to be a participant in this study.

Respondent name: ……

Signature/ Fingerprint: and date: …… ……

Witness signature……

Appendix – D

প্রশ্নাবলী (বাংলা)

ঢাকা শহরের স্তন্যদানকারী মায়ের মধ্যে ভঙ্গি সম্পর্কিত ঘাড়ের ব্যথা

তারিখ:

কোড | | | | **নং:**

অংশগ্রহণকারীর নামঃ.....

ঠিকানাঃ.....

মোবাইল নাম্বর .....

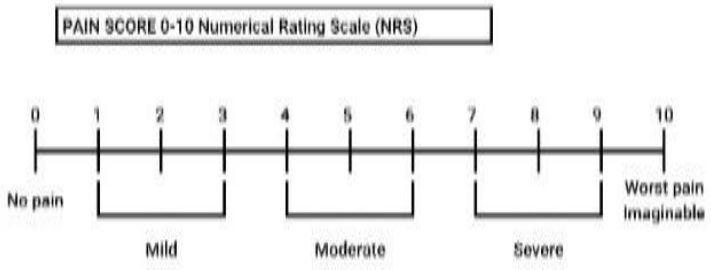
অধ্যায়ঃ ১- **সামাজিক জনতাত্ত্বিক তথ্য**

প্রশ্ন নং	প্রশ্ন	উত্তর
১।	আপনার বয়স কত?.....	
২।	আপনার পেশা কি? ১। গৃহিণী ২। চাকুরিজীবি ৩। অন্যান্য	
৩।	আপনি কোথায় বাস করেন? ১। শহর ২। উপশহর ৩। গ্রাম	
৪।	আপনার শিক্ষাগত যোগ্যতা কি? ১। প্রাথমিক	

	২। মাধ্যমিক ৩। উচ্চ মাধ্যমিক ৪। অশিক্ষিত ৫। অন্যান্য	
৫।	আপনি কোন ধরনের পরিবারে বাস করেন? ১। একক ২। যৌথ ৩। অন্যান্য	

৬।	আপনার বৈবাহিক অবস্থা কি? ১। বিবাহিত ২। অবিবাহিত ৩। তালাকপ্রাপ্ত ৪। বিধবা	
৭।	আপনার মাসিক আয় কত?.....	
৮।	আপনার ধর্ম কি? **১।** মুসলিম ২। হিন্দু ৩। বৌদ্ধ ৪। খ্রিস্টান ৫। অন্যান্য	

অধ্যায়-২: ব্যাথার বৈশিষ্ট্য

প্রশ্ন নং	প্রশ্ন	উত্তর
১।	আপনার কি ঘাড়ে ব্যাথা আছে ? ১। হ্যাঁ ২। না যদি উত্তর হ্যাঁ হয়, তাহলে পরবর্তী নিম্নলিখিত প্রশ্নের উত্তর দিন	
২।	ব্যথার তীব্রতা কেমন? ১। হালকা ২। মাঝারি ৩। তীব্রতর (Haefeli& Elfering, A., 2005) 	
৩।	কত দিন ধরে ব্যথায় ভুগছেন ? ১। ৩ মাসেরও কম ২। ৩ মাসেরও বেশি	
৪।	কি ধরন এর ব্যথা হয়? ১। একটানা ২। মাঝে মাঝে	

৫।	উপসর্গের শুরু হয় কিভাবে? ১। ক্রমান্বয়ে ২। হঠাৎ	
৬।	ব্যথার নমুনা কেমন? ১। চাপা ব্যাথা ২। তীক্ষ্ণ ৩। যন্ত্রণাপূর্ণ ৪। জ্বলন্ত	
৭।	আপনার কখন ঘাড় ব্যাথা হয়? ১। বুকের দুধ খাওয়ানোর সময় ২। বুকের দুধ খাওয়ানোর পরে ৩। বুকের দুধ খাওয়ানোর সময় এবং পরে	
৮।	বুকের দুধ খাওয়ানোর সময় আপনি কোন ভঙ্গিতে থাকেন? ১। শুয়ে ২। বসে ৩। অর্ধেক শুয়ে ৪। সামনের দিকে ঝুকে	

অধ্যায়-৩: স্তন্যদানকারী মায়ের তথ্য

প্রশ্ন নং	প্রশ্ন	উত্তর
১।	আপনার সন্তান কয়জন? ১। ১ ২। ২ ৩। ৩	

	৪। >৩	
২।	বুকের দুধ খাওয়ানো শিশুর সংখ্যা কয়জন? ১। ১ ২। ২ ৩। ৩ ৪। >৩	
৩।	আপনার বুকের দুধ খাওয়ানো শিশুর ওজন কত? ১। <৫ কেজি ২। ৫-১০ কেজি ৩। >১০ কেজি	
৪।	আপনি কতদিন যাবৎ বুকের দুধ খাওয়াচ্ছেন? ১। <১ মাস ২। ১-৩ মাস ৩। ৪-৬ মাস ৪। >৬ মাস	
৫।	আপনি দিনে কতবার বুকের দুধ খাওয়ান? ১। <৫ বার ২। ৫-১০ বার ৩। >১০ বার	
৬।	বুকের দুধ খাওয়ানোর সময়কাল কত? ১। <৫ মিনিট ২। ৫-১০ মিনিট ৩। >১০ মিনিট	

English Questionnaire

Title

Posture-related neck pain among the lactating Mother in residual area of Dhaka city

Date:

Code No: | | | |

Participant name: .....

Address: .....

Mobile No…..…….. ……..

Section: 1. Sociodemographic information.

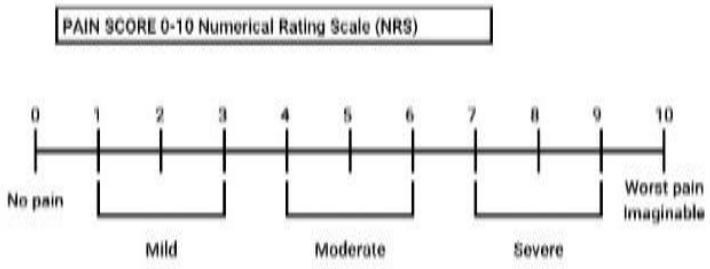
Q.No.	Question	Ans.
1.	What is your age?	
2.	What is your occupation? 1.Housewife 2. Job holder 3. Others	
3.	Where do you live? ..... 1. Urban 2. Semi urban 3. Rural	
4.	What is your education level? 1. SSC 2. HSC 3. Graduate 5. Others 4. Illiterate	

5.	Types of your family? 1. Nuclear 2. Extended	

6.	What is your marital status? 1. Married 2. Unmarried 3. Divorce 4. widow	
7.	What's about your monthly income?	
8.	What is your religion? 1. Muslim 2. Hindu 3. Buddhist 4. Christian 5. Others	

Section:2. pain characteristics:

Q.No.	Questions	Ans.
1.	Do you have neck pain? 1. Yes 2. No	

2.	Severity of pain? 1. Mild 2. Moderate 3. severe  (Haefeli & Elfering, A., 2005)	
3.	Duration of pain 1. Less than 3 months 2. More than 3 months	
4.	Type of pain 1. Continuous 2. Intermittent 3. Occasional	
5.	Onset of signs and symptoms 1. Gradual 2. Sudden	
6.	Nature of Pain 1. Dull aching 2. Sharp 3. shooting 4. Burning	

7.	What time of occurrence of neck pain? 1. During breast feeding 2. After breast feeding 3. During and After breast feeding	
8.	What is your position when breastfeeding? 1. Lying 2. Sitting 3. Half lying 4. Forward bending	

Section:3 Lactating mother information

Q.No.	Questions	Ans.
1.	How many children do you have? 1. 1 2. 2 3. 3-4 4. >5	
2.	What is the number of breastfed children? 1. 1 2. 2 3. 3-4 4. >5	
3.	How much weight of your breastfeeding child? 1. <5 kg 2. 5-10 kg 3. >10 kg	
4.	How long have you been breastfeeding? 1. 1-3 month 2. 4-6 month	

	3. 7-9 month 4. >10 month	
5.	How many times a day do you breastfeed? 1. <5 times 2. 5-10 times 3. >10 times	
6.	What is the duration of breastfeeding? 1. <5 minutes 2. 5-10 minutes 3. >10 minutes	

APPENDIX –E **Gant Chart**

Activities / Month	July 22	Aug 22	Sep 22	Oct 22	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23
Proposal Presentation												
Introduction												
Literature review												
Methodology												
Data collection												
Data analysis												
Result												
1st Progress Presentation												
Discussion												
Conclusion & recommendation												
2nd Progress Presentation												
Communication with supervision												
Final Submission												