

NECK PAIN WITH SCAPULAR DYSKINESIA IN BREASTFEEDING FEMALES

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ABSTRACT

Background

Neck pain is one of the most common musculoskeletal complaints among breastfeeding females and is often associated with poor posture and scapular dyskinesia. Scapular dyskinesia refers to abnormal movement or positioning of the scapula, which may alter shoulder biomechanics and increase stress on cervical and upper back muscles. Prolonged breastfeeding positions, sustained neck flexion, and poor ergonomic practices may contribute to neck pain and functional limitations in lactating women.

Objective

To determine the prevalence of neck pain with scapular dyskinesia in breastfeeding females.

Methodology

A cross-sectional study was conducted in Employees Colony, Layyah, Punjab, Pakistan over a duration of six months. A total of 87 breastfeeding females were selected through non-probability convenient sampling. Females aged 18–40 years with positive Scapular Dyskinesia Test (SDT) and breastfeeding history of at least six months were included in the study. Data were collected using the Shoulder Pain and Disability Index (SPADI). Statistical analysis was performed using SPSS version 27. Descriptive statistics including frequency, percentage, mean, and standard deviation were applied.

Results

A total of 87 participants were included in the study. The mean age of the participants was 32.16 ± 7.66 years. Left-sided involvement was more common (44.8%) followed by right-sided involvement (40.2%) and bilateral involvement (14.9%). Most participants reported moderate neck pain at its worst (58.6%), while 33.3% experienced mild pain and 8.0% experienced severe pain. Mild pain was commonly reported during functional activities such as reaching overhead, washing hair, carrying objects, and dressing. The majority of participants had been breastfeeding for 6–10 months (59.8%). The findings demonstrated a high prevalence of neck pain and functional discomfort among breastfeeding females with scapular dyskinesia.

Conclusion

The study concludes that neck pain is highly prevalent among breastfeeding females with scapular dyskinesia. Most participants experienced mild to moderate pain and functional limitations during daily activities, indicating the importance of postural education and physiotherapy interventions to reduce musculoskeletal discomfort in lactating mothers.

Keywords

Neck Pain; Scapular Dyskinesia; Breastfeeding Females; Posture; Musculoskeletal Dysfunction

INTRODUCTION

Scapular dyskinesia refers to abnormal positioning or altered movement patterns of the scapula during shoulder and arm movements. It is commonly identified by asymmetrical scapular posture and disturbed scapulohumeral rhythm. Kibler classified scapular dyskinesia into different types based on the pattern of scapular movement abnormalities. Type I is characterized by prominence of the inferomedial border of the scapula due to excessive posterior tilting. In this type, the affected scapula may appear lower than the opposite side. Type II involves prominence of the entire medial border of the scapula and is often associated with shoulder instability or superior labrum anterior-posterior (SLAP) lesions. Type III is identified by excessive upward movement of the superomedial border of the scapula, which may occur due to narrowing of the acromiohumeral space or possible rotator cuff problems. Type IV represents a normal scapular position and normal scapular motion without any abnormality.¹

The overall Studies have shown that neck pain is a common problem in the general population. The reported overall prevalence ranges from 0.4% to 86.8%, with an average prevalence of 23.1%. Point prevalence has been reported between 0.4% and 41.5%, with a mean of 14.4%, while the one-year prevalence ranges from 4.8% to 79.5%, averaging 25.8%. Research findings also indicate that neck pain is more commonly observed among women, people living in high-income countries, and individuals residing in urban areas compared to those living in rural regions or low- and middle-income countries.²

Scapular dyskinesia can develop due to several causes, including musculoskeletal and neurological problems. Bone and joint conditions such as thoracic kyphosis and improper healing of clavicle fractures may contribute to abnormal scapular movement patterns. Repeated and excessive stress

on the neck region over time can lead to microscopic tissue damage, causing neck pain and limiting the range of motion. Prolonged sitting posture is also considered an important predisposing factor for neck pain, particularly among breastfeeding females who often maintain sustained positions for long periods.¹

Individuals suffering from chronic neck pain may experience a variety of physical, psychological, and social difficulties that can affect their daily lives even before the onset or progression of the complaint.³ The majority of studies on breastfeeding have mostly focused on evaluating the positive effects of breastfeeding counselling on outcomes that relate to improving breastfeeding habits of women rather than on the nutritional outcomes in infants.⁴

Several strategies have been suggested in the literature to reduce this problem. For instance, educating mothers about proper breastfeeding positions and providing posture training may help decrease musculoskeletal pain. However, these approaches usually require long-term intervention, regular follow-up, and considerable time and effort. Different supportive products, including breastfeeding pillows and specially designed chairs, are also available to help mothers maintain comfortable positions during breastfeeding.⁵

Scapular dyskinesia may lead to several musculoskeletal problems, including neck pain, shoulder pain, back pain, headaches, upper cervical laxity, and thoracic outlet syndrome. Therefore, assessment of the surrounding muscles and scapular movement is important to determine whether abnormal scapular motion contributes to pain in the neck, back, or shoulder regions. The primary aim of this study was to examine the relationship between scapular dyskinesia and neck pain and to evaluate the effect of scapular dyskinesia on the severity of pain.

The prevalence of scapular dyskinesia is notably

higher among breastfeeding postnatal women, attributed to ergonomically unfavorable breastfeeding positions.⁷ Various studies have examined the incidence of breastfeeding-related musculoskeletal pain, knowledge and attitudes concerning breastfeeding postures, and the effectiveness of physiotherapy therapies in reducing pain. These studies emphasize the need of teaching mothers proper nursing methods and postures to reduce the risk of scapular dyskinesia and improve the overall breastfeeding experience. Limited evidence exists on the relationship between breastfeeding postures and scapular dyskinesia, especially in Pakistan.

This study aims to address this gap by investigating the relationship between various nursing postures and the prevalence of scapular dyskinesia in postpartum females. The hypothesis proposed that there is a significant association between breastfeeding positions and scapular dyskinesia in this group, with the goal of improving knowledge among healthcare professionals about the interplay between breastfeeding behaviors and scapular health.

LITERATURE REVIEW

Breastfeeding, often described as “an ancient art and a modern miracle,” provides many well-established benefits for infants, mothers, and society as a whole. Therefore, it should be valued, encouraged, and protected. However, rapid social and economic changes in modern society may influence breastfeeding practices in different ways.⁸

In 2024 Haider et al, an observational cross-sectional study was conducted to examine the association between breastfeeding positions and scapular dyskinesia in postpartum females. The study explained that scapular dyskinesia refers to abnormal movement or positioning of the scapula, which can disturb normal shoulder mechanics and contribute to musculoskeletal discomfort. Factors such as postural changes, muscular imbalance, thoracic kyphosis, and prolonged static postures were identified as important contributors to scapular dysfunction. The researchers further noted that breastfeeding, although highly beneficial for both mother and infant, often requires mothers to maintain sustained positions for long periods,

which may increase the risk of upper back, neck, and shoulder pain. Previous research has reported a high prevalence of musculoskeletal discomfort among lactating women, particularly in the upper back and shoulder regions. Studies investigating scapular dyskinesia in breastfeeding mothers have shown noticeable prevalence rates. However, findings regarding the relationship between specific breastfeeding positions and scapular dyskinesia remain inconsistent. Some studies suggest that poor ergonomic positions, such as prolonged cross-cradle holding, may increase musculoskeletal strain and discomfort. On the other hand, some researchers believe that although pain and discomfort are common during breastfeeding, posture alone may not be the direct cause of scapular dyskinesia..

Rana et al., in 2024 A comparative cross-sectional study was conducted to compare breastfeeding positions in relation to neck pain among lactating mothers. The study found that maintaining prolonged breastfeeding postures may increase the risk of musculoskeletal discomfort, especially neck pain, in breastfeeding women. Poor ergonomic positioning during feeding was associated with continuous neck flexion, muscular strain, and mechanical stress on the cervical spine. Previous research has also indicated that unsupported and prolonged neck posture during breastfeeding can contribute to musculoskeletal neck pain (MSK). Studies from different populations have reported a high prevalence of breastfeeding-related neck pain and linked it to factors such as poor posture, frequent feeding sessions, postpartum duration, and lack of ergonomic awareness among mothers.⁴

Khan in 2024 et al., the literature consistently indicates that neck pain is highly prevalent and often associated with scapular dyskinesia and postural abnormalities. Altered scapular mechanics may increase cervical muscle strain and contribute to persistent neck symptoms. However, despite growing evidence supporting this association, there remains a need for further standardized research to establish clear rehabilitation guidelines targeting both cervical and scapular dysfunction. This body of evidence supports the investigation of the association between neck pain and scapular dyskinesia to improve clinical assessment and

develop more effective physiotherapy interventions.²

Ojukwu et al., highlighted musculoskeletal conditions that can occur during pregnancy and the postpartum period, like as shoulder and neck pain that may last into lactation. One of the main causes of musculoskeletal pain during BF is poor posture. Cervical and shoulder muscles are more stressed by prolonged neck flexion, kyphotic posture, and unsupported head/neck positions. Research constantly demonstrates that although nursing is essential for the health of infants, it also puts women at risk for musculoskeletal pain, particularly neck pain. Early postpartum vulnerability, frequent feedings, and poor posture are major causes. The ubiquitous use of cradle hold may account for its correlation with discomfort in our study, despite its biomechanical efficiency. It is highly advised to use preventive techniques to lessen neck pain associated with breastfeeding, such as switching positions and ergonomic education.⁹

In 2019 Rani et al., conducted a descriptive cross-sectional survey on association of breast feeding positioning with musculoskeletal pain in postpartum mothers of rawalpindi and islamabad. They determined that most common position of breastfeeding was cross cradle hold associated with mechanical neck pain while other positions also showed some musculoskeletal problems related to breastfeeding positioning. In cross cradle hold position of baby is across the lap by using the opposite arm to the breast. This position is better for very small babies or for those babies and infants who got trouble latching on.1 By adopting this position mothers were more comfortable and this position also showed association with mechanical neck pain due to improper posture of mothers. During data collection out of 400 sample, 104(26%) women reported no pain associated with breastfeeding in any area of body while 294(74%) reported they had pain in different regions during and after breastfeeding. Out of 74% women, 153(38.3%) reported pain during breastfeeding while 110(27.5%) reported pain after breastfeeding. Only 8.3% reported their pain remained constant.

While in 2013, Mbada et al⁶ conducted a study on Nigerian mother's poor knowledge and wrong position for breastfeeding and its impact on mother's

health. The result showed that Nigerian mothers had good knowledge about breastfeeding positions. The result reported by this study were very similar to those of our study. Other studies were conducted to focus on importance of breastfeeding and discussed factors to influence exclusive breastfeeding. In contrast this study was done to determine commonly used breastfeeding position resulting in any musculoskeletal problem.¹⁰

Sağlam et al., investigated the relationship between neck pain and scapular dyskinesia in breastfeeding women. Findings indicated a significant association between the presence of scapular dyskinesia and increased neck pain severity. These results align with existing evidence suggesting that scapular dysfunction may contribute to cervical discomfort through biomechanical alterations and muscular imbalance. Overall, the literature supports the notion that neck pain in breastfeeding females is multifactorial, with scapular dyskinesia playing a contributory role. Early assessment, ergonomic education, postural correction, and strengthening exercises targeting scapular stabilizers may help reduce musculoskeletal discomfort in this population. Further large- scale longitudinal studies are recommended to better understand causal relationships and preventive strategies.⁶

In 2020 Giuseppe conducted comprehensive study on scapular dyskinesia: from basic science to ultimate treatment. They determined that several cross-sectional studies report a high prevalence of neck pain among lactating mothers, often linked to prolonged feeding sessions and improper positioning. The reviewed article further supports the association between childcare-

related physical demands and cervical musculoskeletal discomfort. It suggests that ergonomic education, early screening for postural deviations, and strengthening exercises targeting cervical and scapular stabilizers may reduce symptom severity and improve functional outcomes. Overall, the literature consistently demonstrates that neck pain in breastfeeding females is common and influenced by biomechanical, ergonomic, and lifestyle factors. Preventive strategies focusing on posture correction and musculoskeletal rehabilitation are essential to minimize long-term complications.¹¹

Literature Gap

2.1 Research on the association between scapular dyskinesia and neck pain in breastfeeding females particularly in the context of Pakistan, remains limited. Thus, this study aimed to fill this gap by exploring the correlation between occurrence of scapular dyskinesia and neck pain among breastfeeding females.: **OBJECTIVE:**

The objective of this study is to determine the prevalence of neck pain with scapular dyskinesia in breast feeding females.

2.2 : HYPOTHESIS

2.2.1 : NULL Hypothesis:

There will be no significant neck pain with scapular dyskinesia in breastfeeding females.

2.2.2 : ALTERNATE Hypothesis:

There will be significant neck pain with scapular dyskinesia in breastfeeding females.

MATERIALS & METHODS

3.1 : Study Design

The study design will be Cross Sectional.

3.2 : Study Setting

The study setting will be Employees colony Layyah Punjab, Pakistan.

3.3 : Duration of the Study

The study duration will be 6 months after approval of synopsis.

3.4 : Sample Size

The sample size for this study will be 87 calculated by epitools. ²



Analysed: Fri Feb 20, 2026 @ 19:42 UTC

Home Prevalence - Freedom - Studies - Diagnostics - Sampling -

Inputs

inp1	0.94
inp3	0.05
inp2	0.95
inp4	N/A

Results

Sample size required for specified inputs

Large population	87
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3.5 : Sampling Technique

The sampling technique will be non-probability convenient sampling technique.

3.6 : Sample Selection

3.6.1 : Inclusion Criteria

- Age 18-40 years.
- Lactating women (breast feeding for at least 6 months or more). ⁷
- Positive Scapular Dyskinesia test (SDT). ⁷
- Both females who had undergone normal delivery or C-Section. ⁷

3.6.2 : Exclusion Criteria

- Any trauma affecting shoulder. ⁷

- History of shoulder fracture/dislocations. ⁷

- History of clavicle fracture. ⁷

- Cervical radiculopathy. ⁷

- History of surgery on the neck, back, and shoulders. ¹²

- Progressive neurological deficit and/or neuromuscular dysfunction, and rotator cuff disorders. ¹²

3.7 : Data Collection Tools

3.7.1 : Shoulder Disability Index

The Shoulder Pain and Disability Index (SPADI) is a patient completed questionnaire with 13 items assessing pain level and extent of difficulty with ADLs requiring the use of the upper extremities.

The pain subscale has 5-items and the Disability subscale has 8-items. SPADI has been translated in many languages including Spanish, Greek, Dutch, Hindi, Thai and Italian each with its own validity and reliability. ²

3.8 : Data Collection Procedure

The subject who meets the inclusion criteria will be included in this study. The nature and purpose of study along with questionnaires will be explained to each and every subject. Consent will be taken and shoulder pain and disability index will be performed to confirm the condition, after this data will be filled, analyzed and interpreted accordingly

3.9 : Ethical Considerations

1. The rights of the research

3.10 : Consort Flow Diagram

participants will be protected, and the ethical guidelines established by the GCUF Layyah ethical committee will be adhered to.

2. All participants will be required to sign written informed consent forms, which are attached.

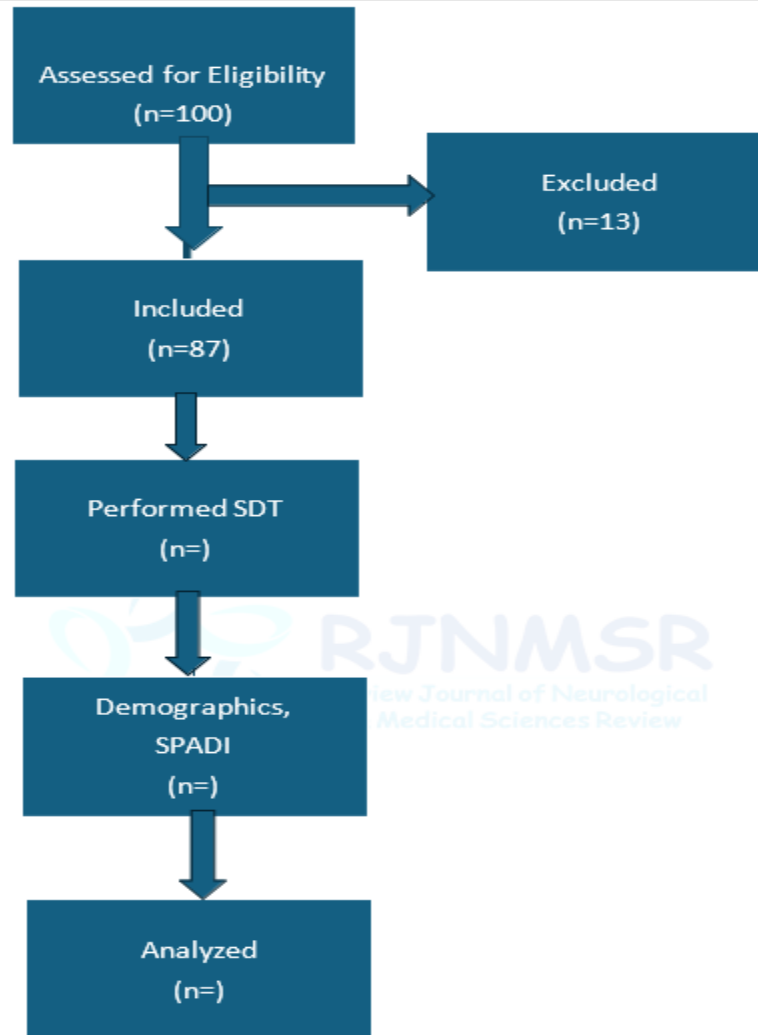
3. All data collecting information will be kept private.

4. All study participants will remain anonymous.

5. The participants will be made aware that there will be no danger or drawbacks to the study's methodology.

6. Participants will be made aware that they are free to leave the study at any time





3.11 : Data Analysis Procedure

Data will be analyzed by using The Statistical Package for Social Science Software (SPSS) version 27.0 for window Microsoft, also Microsoft word and excel will be used to generate graphs, tables etc. The

quantitative data will be presented in the form of mean and standard deviation. The categorical data will be presented in the form of frequency and percentage.

4.1 Sociodemographic RESULTS

Demographic	Age	Effected side
Mean	32.16	1.7471
SD	7.661	70246

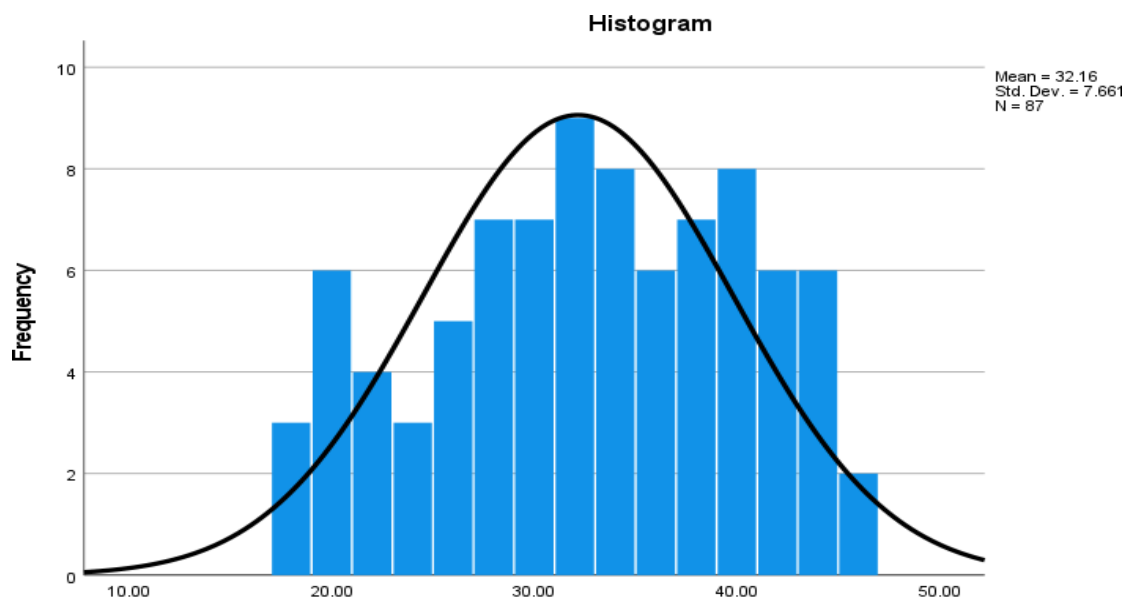
Table4.1 shows the mean and standard deviation of sociodemographic including age and effected side .The mean age in the study was 32.16 and standard deviation was 7.661. Effected side statistics shows mean of 1.7471 and standard deviation of 70246.

4.2. Descriptive statistics of age

	Frequency	Percent	Valid Percent	Cumulative Percent
18.00	3	3.4	3.4	3.4
19.00	3	3.4	3.4	6.9
20.00	3	3.4	3.4	10.3
21.00	2	2.3	2.3	12.6
22.00	2	2.3	2.3	14.9
23.00	2	2.3	2.3	17.2
24.00	1	1.1	1.1	18.4
25.00	3	3.4	3.4	21.8
26.00	2	2.3	2.3	24.1
27.00	3	3.4	3.4	27.6
28.00	4	4.6	4.6	32.2
29.00	4	4.6	4.6	36.8
30.00	3	3.4	3.4	40.2
31.00	3	3.4	3.4	43.7

32.00	6	6.9	6.9	50.6
33.00	4	4.6	4.6	55.2
34.00	4	4.6	4.6	59.8
35.00	3	3.4	3.4	63.2
36.00	3	3.4	3.4	66.7
37.00	3	3.4	3.4	70.1
38.00	4	4.6	4.6	74.7
39.00	5	5.7	5.7	80.5
40.00	3	3.4	3.4	83.9
41.00	2	2.3	2.3	86.2
42.00	4	4.6	4.6	90.8
43.00	3	3.4	3.4	94.3
44.00	3	3.4	3.4	97.7
45.00	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Table 4.2 presents the descriptive statistics of patient's age. It shows each age with its frequency, percentage, valid percentage and cumulative percentage. The description indicates how ages from 18 to 45 are spread across the sample. The total of 87 patients are included with cumulative percentages reaching 100%.



What is age of the patient?
Fig.4.1 pie chart of age statistics

4.3. Descriptive statistics of affected side:

Which side is effected?				
	Frequency	Percent	Valid Percent	Cumulative Percent
right	35	40.2	40.2	40.2
left	39	44.8	44.8	85.1
both	13	14.9	14.9	100.0
Total	87	100.0	100.0	

Table 4.3 shows the the distribution of affected side among patients. Most patients have the left side affected (44.8%), followed by the right side

(40.2%), and both sides (14.9%). The data includes 87 patients with cumulative percentages reaching 100%.

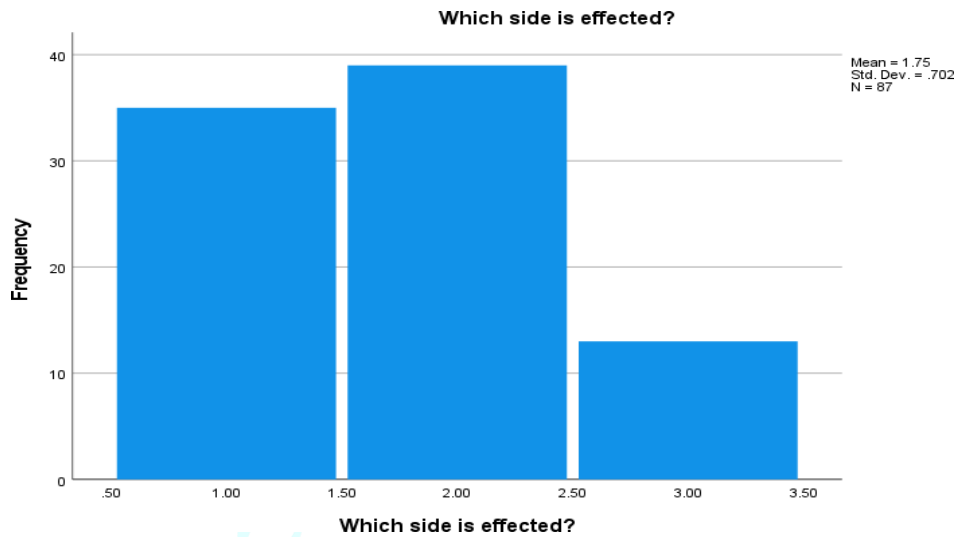


Fig 4.2 Histogram of Severity of condition

4.4. Descriptive statistics of breast-feeding duration

Breast feeding for months?	
Mean	1.4023
Std. Deviation	.49320

Table 4.4 shows the descriptive statistics of breast feeding duration

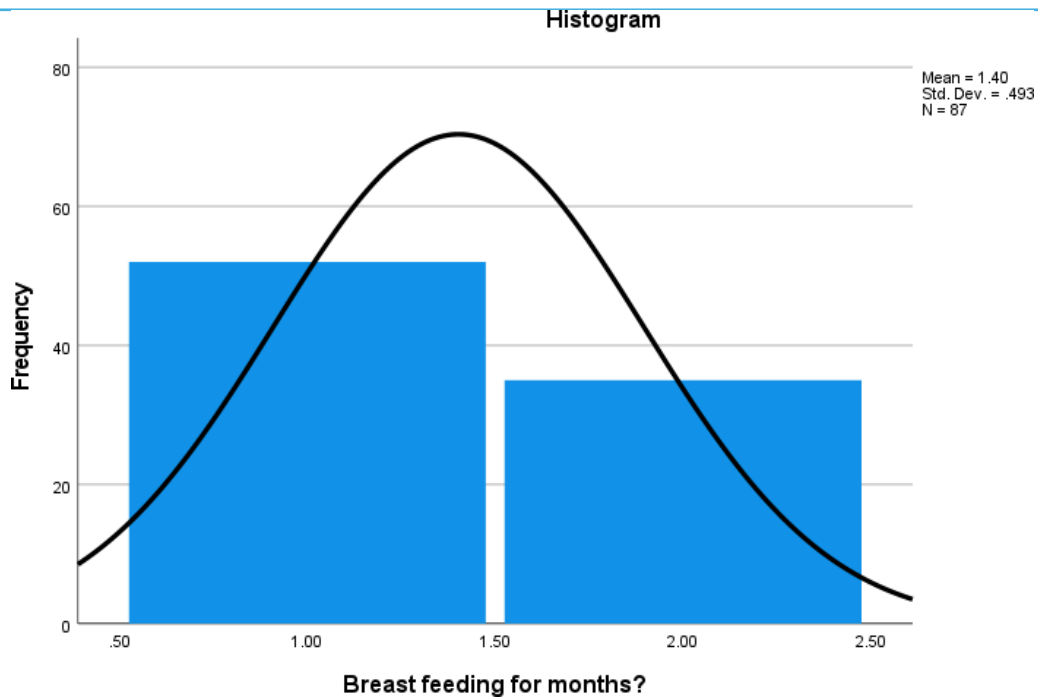


Fig 4.3 Histogram of breastfeeding duration

4.5. Frequency and percentage distribution of breastfeeding duration

Breast feeding for months?				
	Frequency	Percent	Valid Percent	Cumulative Percent
6 to 10	52	59.8	59.8	59.8
more than 10	35	40.2	40.2	100.0
Total	87	100.0	100.0	

Table 4.5 shows frequency and percentage distribution of breastfeeding duration.

4.6. Descriptive statistics of SPADI

	Mean	Std. Deviation
At it worst?	1.7471	.59491
when lying on the involved side?	1.4598	.54569
Reaching for something on a high shelf?	.8276	.66834
Touching the back of your neck?	.5172	.62621
Pushing with involved arm?	.3218	.49402
Washing your hair?	.8736	.64348
Washing your back?	1.2184	.57920
Putting on an undershirt or jumper?	.9540	.52624
putting on a shirt that buttons down the front?	.5977	.61870
putting on your pants?	.3793	.48803
placing an object on high shelf?	.7816	.49239
Carrying a heavy object of 10 pounds (4.5 kilogram)	.7586	.64638

Removing something from your back pocket?	.8621	.57410
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Table 4.6 shows the descriptive statistics of SPADI items among breastfeeding women with neck pain and scapular dyskinesia. The highest mean scores were observed for “At its worst?” (M=1.75,SD=0.59) and “when lying on the involved side?” (M=1.46,SD=0.55), indicating greater pain intensity. Among functional activities, “Washing

your back?” (M=1.22,SD=0.58) showed the most difficulty, while “Pushing with involved arm?” (M=0.32,SD=0.49) and “putting on your pants?” (M=0.38,SD=0.49) were least affected. Overall, participants reported mild to moderate shoulder pain and disability, with higher limitations in overhead and posterior shoulder tasks.

4.7. Frequency and percentage distribution of SPADI

Variables / Questions	No Pain	Mild (1-3)	Moderate (4-7)	Severe (8-10)
At its worst?	—	29 (33.3%)	51 (58.6%)	7 (8.0%)
When lying on the involved side?	—	49 (56.3%)	36 (41.4%)	2 (2.3%)
Reaching for something on a high shelf?	27 (31.0%)	49 (56.3%)	10 (11.5%)	1 (1.1%)
Touching the back of your neck?	47 (54.0%)	36 (41.4%)	3 (3.4%)	1 (1.1%)
Pushing with involved arm?	60 (69.0%)	26 (29.9%)	1 (1.1%)	—
Washing your hair?	24 (27.6%)	50 (57.5%)	13 (14.9%)	—
Washing your back?	7 (8.0%)	54 (62.1%)	26 (29.9%)	—
Putting on an undershirt or jumper?	14 (16.1%)	63 (72.4%)	10 (11.5%)	—
Putting on a shirt that buttons down the front?	41 (47.1%)	40 (46.0%)	6 (6.9%)	—
Putting on your pants?	54 (62.1%)	33 (37.9%)	—	—
Placing an object on high shelf?	22 (25.3%)	62 (71.3%)	3 (3.4%)	—
Carrying a heavy object of 10 pounds (4.5 kg)?	30 (34.5%)	49 (56.3%)	7 (8.0%)	1 (1.1%)

Removing something from your back pocket?	21 (24.1%)	57 (65.5%)	9 (10.3%)	—
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Table 4.7 shows the frequency and percentage distribution of SPADI items among breastfeeding women with neck pain and scapular dyskinesia. For “At its worst?”, majority of participants reported moderate pain (58.6%), while 8.0% experienced severe pain. “When lying on the involved side?” showed 56.3% with mild pain and 41.4% with moderate pain. Most participants reported no pain or mild difficulty in low-level tasks like “Pushing with involved arm?” (69.0% no pain) and “Putting on your pants?” (62.1% no pain). Activities involving overhead reach and posterior tasks showed higher disability, with “Washing your back?” having 62.1% mild and 29.9% moderate difficulty. Overall, the data indicates predominantly mild to moderate pain and disability across SPADI items.

5.1. DISCUSSION

This cross-sectional study was conducted to evaluate neck pain with scapular dyskinesia in breastfeeding females. This study demonstrated that prevalence rate of neck pain is very high amongst breastfeeding females suffering from scapular dyskinesia.

As for the mean age of the participants, which was 32.16 ± 7.66 years old, the sample consisted of women of active postpartum age, who were susceptible to musculoskeletal problems due to their lifestyle and physical load. Left-sidedness (44.8%) might be due to a specific way of breastfeeding, as it causes asymmetrical muscle overload and poor posture.

According to pain levels experienced by the participants, moderate pain was observed (58.6%), then mild (33.3%) and severe pain (8.0%). These findings are consistent with other studies, which emphasize a static posture during breastfeeding, a forward head position, and poor ergonomic factors in nursing women.

It was discovered that most participants had mild pain while performing various activities, such as overhead activities such as shelving things, combing hair, and dressing. Nevertheless, there were also activities, such as pushing and touching their necks,

which did not involve any pain, implying that this problem affects certain activities but not all.

The findings are consistent with the previous findings that show how improper breastfeeding positions cause dysfunction in the scapular area and lead to painful sensations. According to biomechanical principles, an increased stress level is put onto the cervical muscles because of improper scapular movements, resulting in pain.

In conclusion, it can be asserted that painful sensations in the neck in women with scapular dyskinesia are typical, but mostly moderate to mild in severity.

The study concluded that there is no significant association between breastfeeding positions and scapular dyskinesia among postpartum females. Despite the high prevalence of scapular dyskinesia and musculoskeletal discomfort, the type of breastfeeding position does not appear to influence the likelihood of developing scapular dyskinesia.

These findings suggest the need for further research into the factors contributing to musculoskeletal health in postpartum females and the development of guidelines for breastfeeding practices that promote maternal comfort and physical well-being.⁷

This study concluded that there is association between neck pain and scapular dyskinesia because the value of P were less than 0.05 as our alternate hypothesis were that there is association between neck pain and scapular dyskinesia. In this study there were 37% association between neck pain and scapular dyskinesia.²

It was concluded in this study that there was a high prevalence of lactating mother’s adapting cross cradle position during breast feeding neck pain.⁴

There is a high prevalence of BFRNP among nursing mothers. Although maternal characteristics and BF positions were not associated with reported BFRNP, our results suggest that changing BF positions reduces neck pain during nursing sessions. Therefore this study recommends that nursing mothers should regularly change their BF

positions to increase relaxation and comfort.⁹ The interpretations of the study showed that neck pain was significantly associated with breastfeeding positions (p value > 0.03).¹⁵ The findings of the present study indicated that in different breastfeeding positions, musculoskeletal neck pain was commonly present in nursing mothers. The high prevalence of Child exclusively breastfeeding in cross cradle hold position was (N=89 (65.4%) and other positions that cradle hold was (N= 32 (47.1%). Another study organized in the Somali region state of Ethiopia took two groups Group I and Group II. The results of the study showed that the mean age of Group I was 25.64 and the mean age of Group II was 25.49 exclusive breastfeeding was associated with neck pain among nursing mothers an essential component of child growth that took infants 3-5 months.¹⁶ A current study demonstrated that neck pain was a statistically significant difference found among lactating mothers in both breastfeeding positions cradle hold and cross cradle hold. The results showed a high prevalence of neck pain in both positions related to postpartum duration ≥ 10 months in group I was N=15(22.1%) and in group II was N=50(36.8%).⁴

5.2. CONCLUSION

The prevalence rate of neck pain is very high amongst breastfeeding females suffering from scapular dyskinesia. The highest proportion had moderate neck pain (58.6%), while 33.3% had mild neck pain, and only 8.0% suffered from severe neck pain. It was noted that left-sided problems were more common (44.8%) than right-sided problems, which may be due to habitual breastfeeding posture. Activities carried out daily caused mild neck pain, suggesting that there is some limitation but no severe disability.

5.3. LIMITATIONS

- Limiting generalizability.
- Convenience sampling may introduce selection bias.
- Lack of longitudinal follow-up to assess cause-effect relationship

5.4. RECOMMENDATIONS

- Educate breastfeeding mothers about proper posture and positioning.

- Incorporate physiotherapy interventions focusing on scapular stabilization
- Conduct large-scale and longitudinal studies for stronger evidence.

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