A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PERCEPTION OF THE LOW BACK PAIN EXERCISE AMONG STAFF NURSES IN SREE BALAJI MEDICAL COLLEGE AND HOSPITAL, CHENNAI.

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KEYWORDS

low back pain, staff nurses, knowledge, attitude, perception.

ABSTRACT:

Low back pain (LBP) is a significant occupational health issue, particularly among nurses, who are frequently exposed to physical demands that predispose them to musculoskeletal disorders. The study aimed to assess the Knowledge, Attitude and Perception of the Low Back Pain Exercise among staff nurses. This study adopted a cross-sectional descriptive design. The study was conducted in Sri Balaji Medical College and hospital, Chennai from June 2024 to July 2024. A sample size of 120 nurses was determined using a convenience sampling method. The study revealed that most staff nurses have moderate levels of Knowledge (50%), Attitude (45.8%), and Perception (41.7%) regarding low back pain. Smaller percentages fall into the low and high categories across all three areas. The study concluded that the study concluded that the staff nurses had moderate levels of knowledge, attitude and perception on low back pain. Furthermore, integrating psychological support and recognizing the cost-effectiveness of exercise interventions can lead to improved health outcomes for nursing professionals.

INTRODUCTION

Low back pain (LBP) is a significant occupational health issue, particularly among nurses, who are frequently exposed to physical demands that predispose them to musculoskeletal disorders. The prevalence of low back pain (LBP) among nurses is a significant occupational health issue, particularly in high-stress environments such as hospitals. Studies indicate that LBP not only affects nurses' physical health but also their mental well-being and job performance, leading to increased absenteeism and presenteeism. [1,2,3] Research shows that nurses often lack adequate knowledge about the importance of exercise in preventing and managing LBP. For instance, a study conducted in Basra city hospitals revealed a significant gap in nurses' understanding of lower back pain and its associated exercises. [4]

Moreover, the role of physical activity and exercise in preventing LBP is well established. Regular exercise has been shown to strengthen back muscles, improve flexibility, and reduce the likelihood of injury. [5] A systematic review highlighted that exercise interventions, including stretching and strengthening routines, are effective in alleviating chronic low back pain among healthcare workers. [6,7,8] Additionally, studies indicate that nurses who engage in regular physical activity are less likely to experience LBP compared to their sedentary counterparts. [9,10,11] This underscores the importance of promoting exercise as a preventive measure within nursing practice. The perception of LBP and its management also varies among nurses. Factors such as workload, ergonomic practices, and organizational support play a significant role in shaping these perceptions. [12,13,14]

Addressing the knowledge, attitudes, and perceptions of nurses regarding LBP exercises is essential for improving their health outcomes and work performance. Educational interventions that focus on the importance of exercise, ergonomic practices, and safe patient handling can significantly reduce the prevalence of LBP among nursing staff. Future studies should continue to explore these dimensions to

develop comprehensive strategies that support nurses in managing and preventing low back pain effectively.

AIM OF THE STUDY

The study aimed to assess the Knowledge, Attitude and Perception of the Low Back Pain Exercise among staff nurses.

METHODOLOGY

Study Design and Settings

This study adopted a cross-sectional descriptive design. The study was conducted in Sri Balaji Medical College and hospital, Chennai from June 2024 to July 2024. A sample size of 120 nurses was determined using a convenience sampling method. Registered nurses with at least six months of clinical experience and Nurses who provided informed consent to participate in the study were included. Nurses on leave during the data collection period and Nurses working in administrative roles without direct patient care responsibilities were excluded.

Data Collection

Data were collected using a structured questionnaire developed specifically for this study. The questionnaire consisted of three sections:

1. Demographic Information: This section gathered data on participants' age, gender, years of experience, educational background, any previous training related to LBP management, employment type, marital status and smoking status.

2. Knowledge Assessment: This section included multiple-choice questions designed to evaluate the participants' knowledge regarding LBP, its causes, and the role of exercise in its prevention and management. The knowledge score was calculated based on correct responses, with a maximum score of 20 points.

3.Attitude and Perception Assessment: This section utilized a Likert scale (1-5) to assess attitudes and perceptions towards LBP exercises. Statements included items such as "I believe that exercise can help prevent low back pain" and "I feel confident in my ability to perform exercises for low back pain management." The total score for attitudes and perceptions was calculated, with higher scores indicating more positive attitudes.

Statistical Analysis

The data was analyzed using SPSS version 26, employing both descriptive statistics and analytical tests. Frequencies and percentages were calculated, and the mean and standard deviation (SD) were used for data presentation.

RESULTS

Demographic variables:

The demographic data reveals that the majority of participants fall within the 26-35 age group (33.33%), followed by those aged 36-45 years (29.17%), with smaller proportions in the 46+ (20.83%) and 18-25 years (16.67%) categories. Gender distribution is nearly balanced, with males comprising 46.67% and females 49.17%. In terms of education, most participants hold a Bachelor's degree (40%), followed by those with a Diploma (30%), Master's (20%), and PhD (10%). Over half (56.67%) have received previous training in low back pain (LBP) management, while 45% have not. Employment-wise, 37.5% work full-time, 32.5% part-time, and 12.5% are unemployed. Regarding marital status, 45.83% are single, 35.83% are married, and 14.17% are divorced. Lastly, 57.5% of participants are non-smokers, while 24.17% are smokers.

Knowledge:
Table 1 showed that the participants showed considerable knowledge, with 60.6% aware of low back pain, 72% recognizing its causes, and 75.2% understanding that posture contributes to prevention. Awareness of exercise management was at 66.67%, while only 55.83% knew about preventive exercises, and 61.67% acknowledged exercise's role in prevention. High levels of knowledge were also observed in management techniques (69.17%) and risk factors (65%).

Attitude:
Regarding the attitude and perception, the majority of participants view exercise and posture as essential for managing and preventing low back pain (LBP), with around 60% agreeing on their importance. Confidence in managing LBP and performing exercises is moderate, though a notable minority (22.5%) lack confidence. Opinions on medical intervention are mixed, with 55% seeing it as necessary for LBP management s[Table 2].

Figure 1 shows that most respondents have moderate levels of knowledge (50%), attitude (45.8%), and perception (41.7%) regarding the topic. In the high category, 29.2% exhibit strong knowledge and attitude, while 35% have a high perception. The lowest levels are seen in knowledge (20.8%), attitude (25%), and perception (23.3%).

Correlation:
The correlation shows moderate positive relationships between Knowledge, Attitude, and Perception. Knowledge is moderately correlated with both Attitude (0.45) and Perception (0.52), suggesting that as knowledge increases, both attitude and perception tend to improve, but not strongly. The strongest relationship is between Attitude and Perception (0.63), indicating that people with positive attitudes are more likely to have favourable perceptions. Overall, while these variables are positively related, the strength of their associations varies.

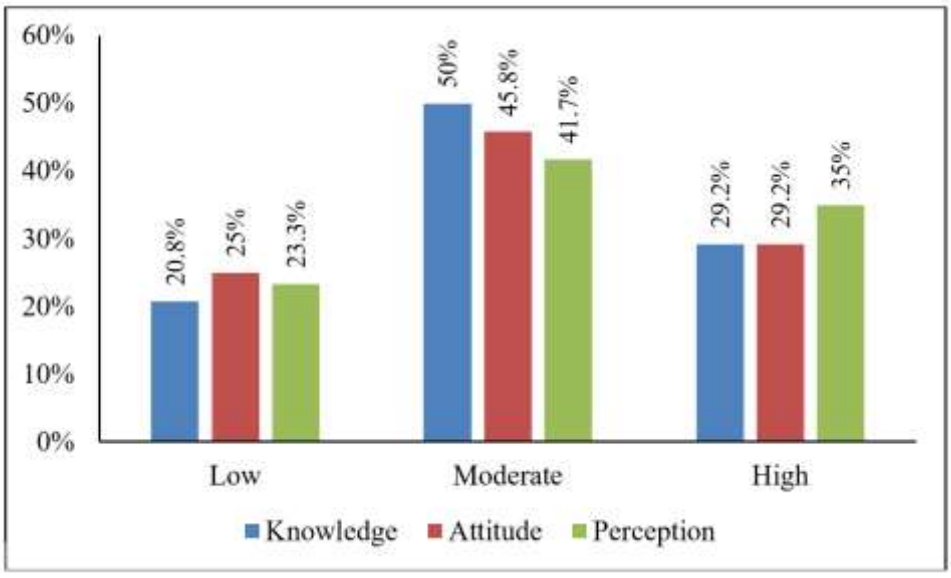
Table 1: Knowledge question on Low back pain N= 120

Knowledge Question/Aspect	Correct Responses (n, %)	Incorrect Responses (n, %)
Knowledge regarding Low Back Pain (LBP)	98 (81.67%)	22 (18.33%)
Understanding of causes of LBP	88 (73.33%)	32 (26.67%)
Awareness of the role of exercise in preventing LBP	74 (61.67%)	46 (38.33%)
Knowledge of exercises for LBP prevention	67 (55.83%)	53 (44.17%)
Knowledge of exercises for LBP management	80 (66.67%)	40 (33.33%)
Understanding the importance of posture in LBP prevention	90 (75%)	30 (25%)
Familiarity with common LBP management techniques	83 (69.17%)	37 (30.83%)
Knowledge of risk factors for developing LBP	78 (65%)	42 (35%)

Table 2: Attitude and perception question on Low back pain. N=120

Attitude/Perception Statement	Strongly Agree (n, %)	Agree (n, %)	Neutral (n, %)	Disagree (n, %)	Strongly Disagree (n, %)
Exercise is essential for LBP management	26 (21.67%)	33 (27.5%)	21 (17.5%)	13 (10.83%)	27 (22.5%)
I believe LBP can be prevented	39 (32.5%)	37 (30.83%)	26 (21.67%)	7 (5.83%)	11 (9.17%)
Posture plays a significant role in LBP prevention	34 (28.33%)	32 (26.67%)	19 (15.83%)	9 (7.5%)	26 (21.67%)
I am confident in managing my LBP symptoms	30 (25.0%)	31 (25.83%)	25 (20.83%)	7 (5.83%)	27 (22.5%)
Regular physical activity reduces the risk of LBP	27 (22.5%)	41 (34.17%)	24 (20.0%)	11 (9.17%)	17 (14.17%)
I am satisfied with my current knowledge of LBP prevention	28 (23.33%)	38 (31.67%)	22 (18.33%)	14 (11.67%)	18 (15.0%)
Medical intervention is necessary for managing LBP	30 (25.0%)	36 (30.0%)	20 (16.67%)	12 (10.0%)	22 (18.33%)
I believe that exercise can help prevent low back pain	35 (29.17%)	37 (30.83%)	18 (15.0%)	16 (13.33%)	14 (11.67%)
I feel confident in my ability to perform exercises for low back pain management	32 (26.67%)	34 (28.33%)	19 (15.83%)	13 (10.83%)	22 (18.33%)

Figure 1: Percentage distribution of Level of knowledge, attitude and perception



DISCUSSION

The study reveals that 20.8% of nurses have low knowledge, 50% possess moderate knowledge, and 29.2% have high knowledge about low back pain. In terms of attitude, 25% of nurses demonstrate a low attitude, 45.8% show a moderate attitude, and 29.2% exhibit a high attitude towards low back pain. Similarly, 23.3% of nurses have a low perception, 41.7% have a moderate perception, and 35% have a high perception of low back pain.

The nursing profession is characterized by physical demands that predispose practitioners to musculoskeletal disorders, particularly low back pain. Research indicates that nurses frequently engage in activities that involve lifting, transferring, and repositioning patients, which can lead to acute and chronic LBP. [15,16]

The attitudes and perception of nurses towards exercise play a pivotal role in their willingness to engage in physical activity as a means of managing LBP. The study indicates that while many nurses recognize the importance of exercise, they often perceive barriers such as time constraints and fatigue as significant impediments to regular participation in exercise programs. This perception is echoed in the literature, where Nicolson et al. highlight that individual beliefs about exercise can significantly influence adherence to therapeutic regimens. [17,18,19]

The findings from the current study reveal a concerning gap in knowledge among staff nurses regarding effective exercise interventions for LBP. Many nurses reported a lack of awareness about specific exercises that could alleviate their symptoms. This aligns with the systematic review by Nuseir, K et al., which found that healthcare professionals often lack sufficient knowledge about evidence-based pain management strategies. [20]

The current study highlights the need for further research to explore the most effective exercise strategies for nurses. Future studies should focus on developing tailored exercise programs that consider the unique needs and challenges faced by nursing professionals. Additionally, longitudinal studies examining the long-term effects of exercise interventions on LBP outcomes in nurses would provide valuable insights into the sustainability of such programs.

CONCLUSION

The study concluded that the staff nurses had moderate levels of knowledge, attitude and perception on low back pain. By enhancing knowledge through education, fostering positive attitudes towards exercise, and providing organizational support, healthcare institutions can empower nurses to take an active role in managing their pain. Furthermore, integrating psychological support and recognizing the cost-effectiveness of exercise interventions can lead to improved health outcomes for nursing professionals.

CONFLITS OF INTEREST:

No conflicts of Interest.

ACKNOWLEDGEMENT:

I would like to specially thank my guide that was always supportive, always telling me what I must do and something I should not do. Having their expertise and their insight helps us get through this project to its end.

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