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# A Study to Assess Knowledge and Self-Care Management Practices Among Post-Operative Orthopedic Patients in Selected Hospitals at Kolar Gold Fields

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***Abstract***

*This study aimed to assess the level of knowledge and practice regarding self-care management among post-operative orthopedic patients using a non-experimental descriptive research design. A total of 60 post-operative orthopedic patients were selected through purposive sampling from a hospital in Kolar Gold Fields. Data were collected using a standardized checklist developed by Printz, Foster Kent, O'Leary, Robin, and Foster (1989), followed by an assessment of patients' knowledge and practice related to self-care management. The findings revealed that a majority (61.7%) of the participants had inadequate knowledge, while 35% demonstrated moderate knowledge, and only 3.3% had adequate knowledge regarding self-care management. In contrast, the overall practice levels were more favorable: 93.7% of the patients exhibited adaptive self-care practices, whereas only 6.3% showed maladaptive practices. The correlation between knowledge and practice indicated a moderate positive relationship (r = 0.420), suggesting that higher knowledge levels were associated with better practice. Although the p-value (p = 0.601) was reported as statistically significant in the study context, it reflects the need for careful interpretation of statistical outcomes. Overall, the study highlights the gap between knowledge and practice and underscores the importance of strengthening patient education to improve self-care management among post-operative orthopedic patients.*

**Keywords:** Orthopedic patients, self-care management, knowledge, practice, post-operative care

## INTRODUCTION

The musculoskeletal system is the largest organ in the body and plays a key role in protection, support, movement, mineral storage, and heat production [1]. Bones provide the body with structure and stability. The hip bones control and bear almost all body weight while walking or engaging in various activities. Musculoskeletal system problems are injuries or disorders that affect the human body's movement or the musculoskeletal system. The problems with musculoskeletal issues are life-threatening, but they have a significant impact on normal activity and production [2].

The primary cause of musculoskeletal issues is trauma, which leads to fractures, dislocations, and related soft tissue damage. Accidents contribute to the majority of musculoskeletal injuries in the present world; the problems may not be fatal, but the restrictions imposed on daily living are of great concern [2].

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Any discontinuity in the hip bones, especially femur deformity, will make people depend on other personnel for their daily activities, physical care, and so on. This leads to self-esteem disturbance in a person [3].

Patients with orthopedic problems experience several physical problems, such as severe pain and the inability to perform daily activities. The cognitive and emotional responses of the patient towards the problems mainly depend on their psychological stability, personality, education, and mode of coping. The recovery of patients after surgery mainly depends on appropriate intervention at the correct time with proper self-care management [4].

The recovery of orthopedic patients depends heavily on the quality of care provided, but the need to educate patients regarding self-care aspects after surgery is often neglected [5].

Self-care refers to the personal management of health. It involves activities carried out by an individual, family, or community aimed at improving, maintaining, or restoring health as well as preventing or managing illness.

In the present world, the majority of elderly people who suffer from illness and deformity are deprived of care and assistance, which is essential for their daily living activities.

The inability to perform daily care tasks has significant psychological and physical implications. In nursing, self-care is limited to being a cornerstone of health promotion and is a major nursing goal that should be encouraged. The self-care of patients by providing health education, such as personal hygiene, wound care, diet, exercises, medication, stress management, fall prevention, and follow-up advice for faster recovery of patients [6].

Psychologically, the patient was stressed by the surgery. Patients may struggle to regain their functional abilities because of psychological depression. It is important to train them to utilize their existing capabilities within their limitations to achieve the highest possible functional capacity and prevent complications. Therefore, they should be taught and encouraged to adopt appropriate self-care practices [7].

A study conducted at the Christian Medical College and Hospital (CMC) investigated the relationship between nutritional status and wound healing in open fractures of the lower limb. The study included 43 patients who had plaster casts for 40 weeks. Anthropometric, biochemical, and hematological parameters were used to assess nutritional status and its impact on wound healing. Nearly half of the patients were malnourished upon admission. Dietary advice and self-care practices were provided to improve their nutritional status, and the study found that wound healing occurred more quickly when nutritional status improved.

In a study conducted in Pune, 50% of patients with lower limb fractures were selected using a non-probability sampling technique. The results indicated that patients lacked sufficient knowledge regarding the self-care of a cast limb [8].

Another study at the HOSMAT Hospital in Bangalore examined the knowledge of post-operative orthopedic patients regarding self-care with plaster casts. Data were collected using a structured knowledge questionnaire. The results showed that 33.56% of post-operative orthopedic patients had inadequate knowledge of self-care practices.

Another similar study was conducted to assess the knowledge of clients regarding self-care of plaster cast with lower limb fractures at selected hospitals in Bangalore [9].

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Samples were selected using a non-probability sampling technique. The results showed a mean knowledge score of 33.5%, and the study concluded that they had inadequate knowledge.

Hence, research suggests the importance of self-care. The aim was to make major physical and psychological adjustments for post-operative orthopedic patients to develop self-care for faster recovery and rehabilitation [10].

## METHODOLOGY

A non-experimental descriptive research design was adopted to assess the level of knowledge and practice regarding self-care management among post-operative orthopedic patients. A total of 60 samples were collected from selected hospitals at Kolar Gold Fields (35 from the Government Hospital and 25 from Sambaram Hospital) using a purposive sampling technique. The tools used included a demographic proforma, a 30-item knowledge questionnaire, and a 20-item five-point Likert scale checklist developed by Printz, Foster, Kent, O'Leary, Robin, and Foster (1989) to assess the levels of knowledge and practice. Post-operative orthopedic patients marked Yes or No. Each positive response is scored 1, and a negative response 0, and the scoring of the knowledge questionnaire is <50% inadequate, 51–74% moderate knowledge, and >75% adequate knowledge.

The results showed that post-operative orthopedic patients, 61.7% of them had inadequate knowledge, 35% had moderate knowledge, and 3.3% had adequate knowledge of self-care management (Figure 1).

In practice, 93.7% of them had adaptive practice in self-care management, and only 6.3% had maladaptive practices (Figure 2).

The data obtained were analyzed and interpreted. The collected data were analyzed using descriptive and inferential statistics (Figure 3).

Content validity was assessed by nursing experts. The reliability of the tool was tested and established.

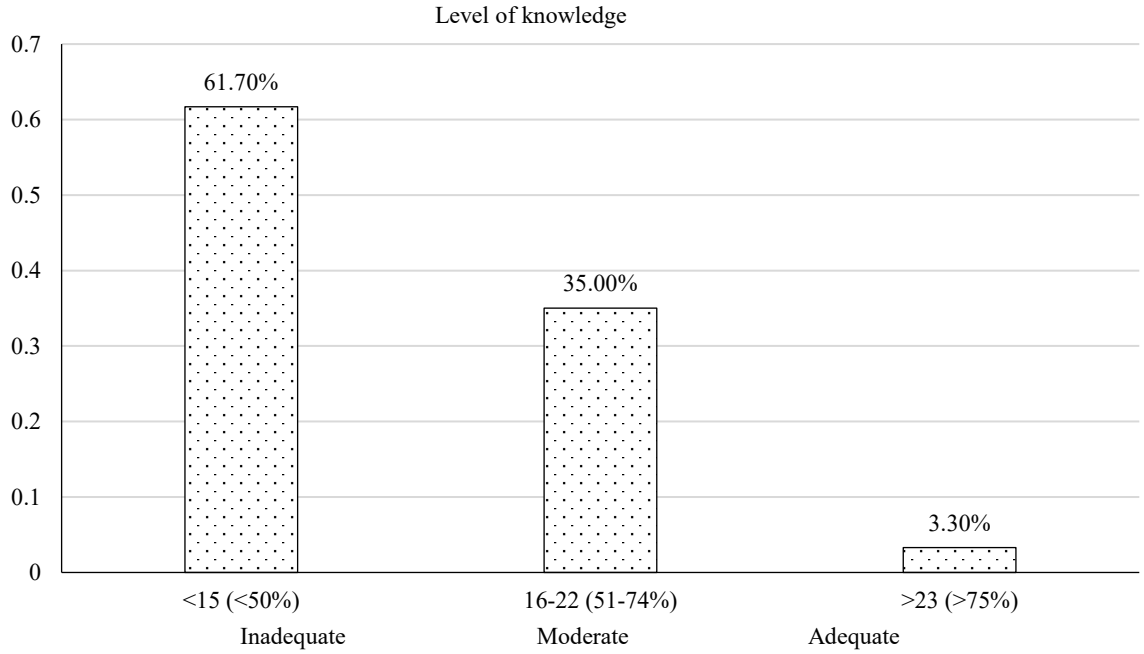


**Figure 1.** Level of Knowledge in post-operative orthopedic patients.

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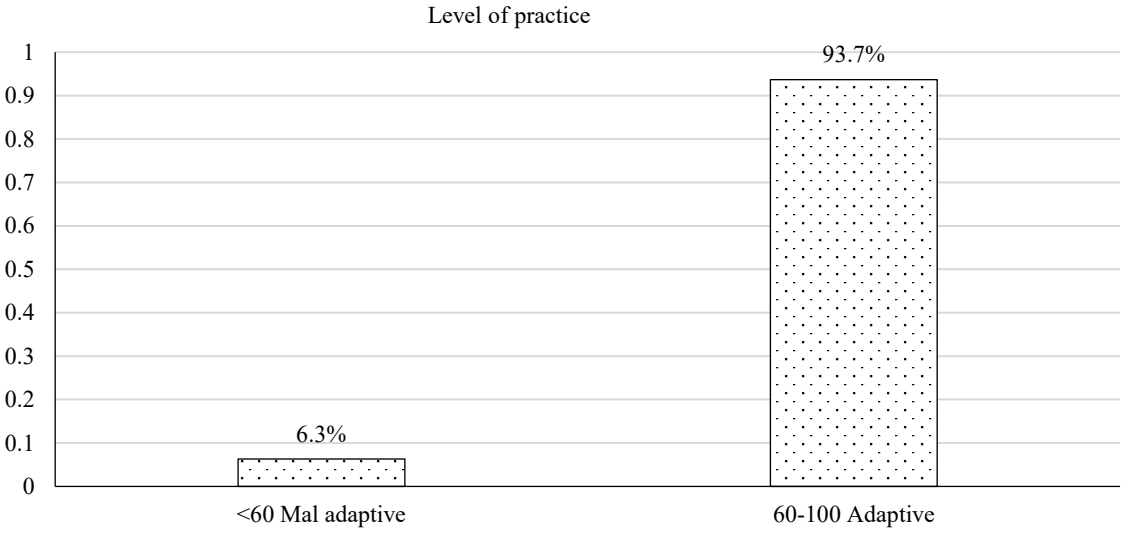


**Figure 2.** Level of practice in post-operative orthopedic patients.

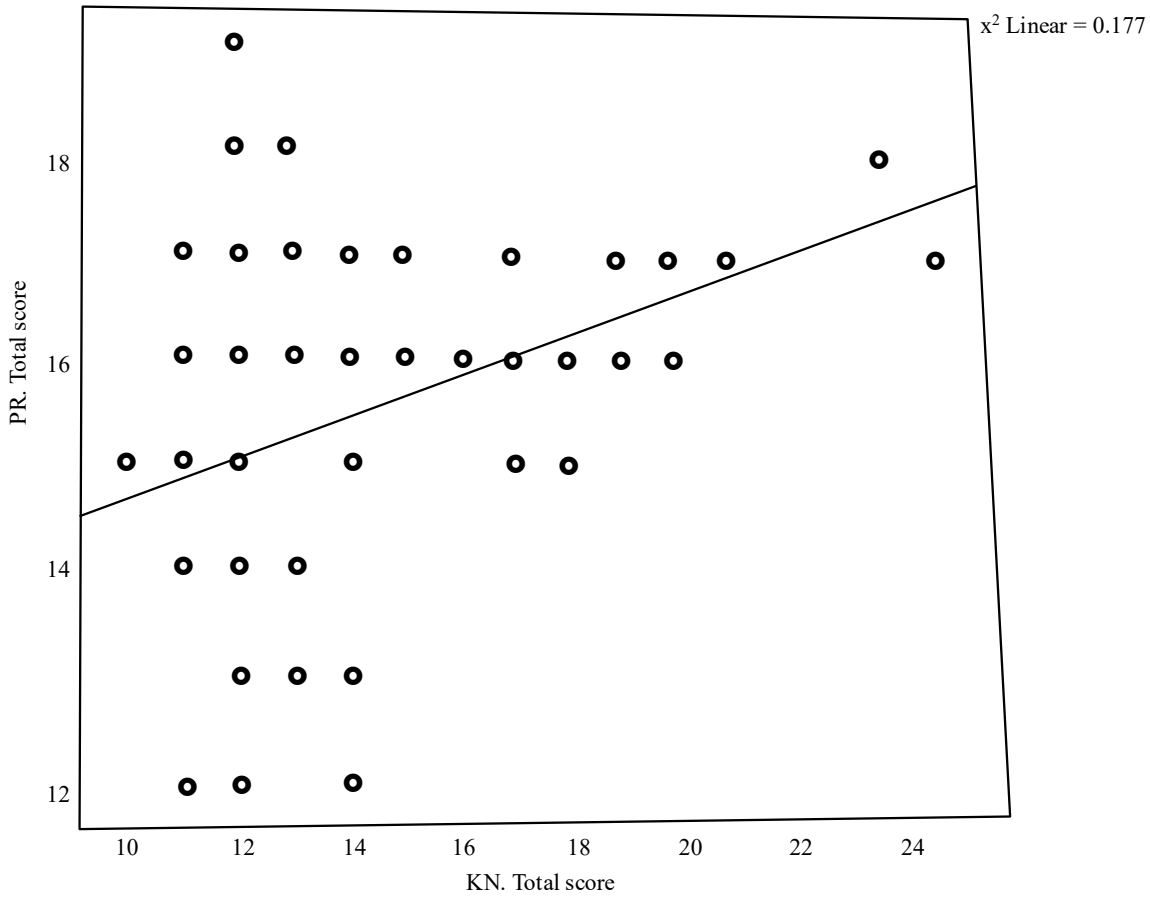


**Figure 3.** Correlate between knowledge and practice among post-operative orthopedic patients.

## DISCUSSION

The present study was conducted to assess the level of knowledge and practice regarding self-care management among post-operative orthopedic patients in selected hospitals at Kolar Gold Fields. The findings revealed a substantial gap between what the patients knew about self-care and how they practiced it. This discussion highlights the clinical significance of these findings, compares them with existing literature, and explains the implications for nursing practice and patient education.

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The study showed that 61.7% of post-operative orthopedic patients had inadequate knowledge, and only 3.3% demonstrated adequate knowledge. This clearly indicates that most patients are discharged with a limited understanding of essential self-care components, such as wound care, mobility precautions, diet, exercises, use of assistive devices, and medication adherence. These findings are consistent with earlier studies conducted in Pune and Bangalore, where the majority of patients were also found to have insufficient knowledge regarding the care of casted limbs or post-operative self-care. Lack of awareness among patients may stem from various factors, such as low educational levels, inadequate health teaching during hospitalization, anxiety related to surgery, and time constraints in busy hospital settings.

Interestingly, despite the low knowledge scores, 93.7% of the patients demonstrated adaptive practice, suggesting that they were able to follow self-care routines to some extent. There are several possible reasons for this discrepancy. First, patients may rely heavily on verbal instructions from healthcare personnel or family support systems, which may guide them informally, even when formal knowledge is lacking. Second, many patients show a high motivation to recover functionally due to the disabling nature of orthopedic conditions. Third, repeated exposure to routine care instructions may strengthen practice behaviors, even when a deeper understanding is limited. This discrepancy between knowledge and practice highlights the complexity of patient behavior, where practice does not necessarily require complete comprehension but may depend on guidance, observation, or habitual action.

The study also identified a moderate positive correlation ($r = 0.420$) between knowledge and practice, suggesting that an improvement in knowledge tends to enhance practice. Although the reported p-value ($p = 0.601$) is not statistically significant according to conventional standards, the positive direction of the correlation still holds clinical relevance. Patients with a greater understanding are more likely to follow rehabilitation instructions appropriately, which ultimately contributes to fewer complications, faster wound healing, and improved mobility. This aligns with the findings of the CMC study, where improved nutritional knowledge and self-care behaviors contributed to faster wound healing in patients with lower limb fractures.

These findings have substantial implications in nursing practice. Nurses play a central role in patient education, especially for those undergoing orthopedic surgeries. However, the data suggest that current educational strategies may not be sufficiently effective or comprehensive. Structured self-care education programs, individualized teaching plans, and demonstration-based learning methods are essential for bridging this knowledge gap. The use of self-assessment tools, visual aids, and follow-up counselling can significantly reinforce patient learning. In addition, teaching sessions should be repeated at different points during the patient's recovery, considering that anxiety and pain may hinder learning immediately after surgery.

Family involvement appears critical as well, given that many patients depend on their caregivers for early recovery. Educating both the patient and caregiver can promote better adherence to recommended practices and reduce post-operative complications, such as infection, pressure injuries, falls, and joint stiffness.

Overall, this study emphasizes the urgent need for enhanced patient education programs in orthopedic settings. Although practice levels appear satisfactory, improving patient knowledge is essential for long-term rehabilitation and independence. Strengthening self-care education can empower patients, reduce hospital readmissions, and improve quality of life following orthopedic surgery.

**Recommendations**

Based on the study's findings, the following recommendations are suggested:

- A similar study could be conducted in a different setting.
- A comparative study may be carried out between adults and early adolescents.
- Replicating the study with a larger sample would allow for broader generalization of the results.

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## CONCLUSION

This study highlights the importance of evaluating knowledge and practices related to self-care management among post-operative orthopedic patients. Creating awareness among post-operative orthopedic patients on self-care management should be advocated by means of effective health education programs and a better quality of life.

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