Effectiveness of Orthopedic Rehabilitative Nursing Care on Wellbeing of Patients with Lower Limb Fractures in Selected Hospitals at Bhubaneswar, Odisha

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Abstract

Health as defined by each person integrates all the human dimensions physical, intellectual, emotional, socio cultural, spiritual and environmental aspects of the whole person. The nurse giving holistic nursing care must be equally considered all these inter-related and interdependent dimensions of the whole person. Rehabilitation is the process of achieving maximum restoration of physical, psychological and social function must be carefully planned and executed. It should be goal directed and based on a thorough assessment of the patient’s medical, functional and psychosocial status. A pre-experimental research design with one group pretest and posttest is adopted for the study. The sample size for the study comprises of 120 patients admitted in ortho ward with the diagnosis of fracture femur and Convenient Sampling Technique used in this study. The result shows that 1st post-test and 4th post test scores of level of orthopedic rehabilitative nursing care of patients with lower limb fractures difference in mean percentage found that for social wellbeing was 41%, spiritual wellbeing was 56%, mental wellbeing was 48% and activities of daily living was 37%. The present study was conducted to assess the effectiveness of orthopaedic rehabilitative nursing care on wellbeing of patients with lower limb fractures. The study concluded that orthopaedic rehabilitative nursing care is highly effective and wellbeing of patients is independence, physically and socially, mentally, spiritually allowing them to return to their normal place of living where ever possible.

Keywords: Orthopaedic rehabilitative nursing care, lower limb fractures, Social, Mental, Spiritual wellbeing, Activities of daily living.

Introduction

Health as defined by each person integrates all the human dimensions physical, intellectual, emotional, sociocultural, spiritual and environmental aspects of the whole person. The nurse giving holistic nursing care must be equally considered all these inter-related and interdependent dimensions of the whole person. Rehabilitation is the process of achieving maximum restoration of physical, psychological and social function must be carefully planned and executed. It should be goal directed and based on a thorough assessment of the patients medical, functional and psychosocial status.

The incidence of accident in every 90 seconds and every 7 minutes a fatality with just 1% of the global vehicle population. India has 6% of the total accident in the world. The annual incidence is highest among school and the graduate students, 62.2% had lower limb fracture followed by accident, superficial injuries were most common in 47.4%, crush injuries 14.1% and concealed injuries 12.4%. Majority of the injured victims 92.4% had treatment within 6 hours while 70% availed treatment within one hour after injury. In view of the above facts in mind, the investigator interested to do this particular study that is orthopedic rehabilitation nursing care. The aim of nursing care is to maximize the client’s independence, physically and socially, mentally, spiritually allowing them to return to their normal place of living where ever possible. Rehabilitation care must include the cognitive and emotional aspects of recovery.

Statement of the problem

“A study to assess the effectiveness of orthopaedic rehabilitative nursing care on wellbeing of patients with lower limb fractures in selected hospitals at Bhubaneswar, Odisha”
Objectives

1) To assess the social, mental, spiritual wellbeing and activities of daily living of patients with lower limb fractures.
2) To evaluate the effectiveness of orthopedic rehabilitative nursing care of patients with lower limb fractures.
3) To find the association between the social, mental, spiritual wellbeing and activities of daily living with selected set of socio- demographic variables like age, gender, religion, occupation, income education status, marital status, personal habits.

Methodology

Research approach. Quantitative research approach was adopted for the study.
Research design. A pre- experimental research design with one group pretest and posttest is adopted for the study.
Population. In this study all patients who have Muscular skeletal injury like fracture femur underwent open reduction and internal fixation admitted in ortho ward in selected hospitals at Bhubaneswar
Sample. The sample for the study was patients underwent open reduction and internal fixation with fracture femur that is fulfilling the inclusion criteria.
Sample size. The sample size for the study comprises of 120 patients admitted in ortho ward with the diagnosis of fracture femur.
Sampling technique. Convenient Sampling Technique.

Criteria for sample selection

Inclusion criteria
1) Orthopedic patients with fracture femur underwent open reduction and internal fixation.
2) Those who are speaking Tamil / English only selected.

Exclusion criteria
1) Orthopedic patients who have multiple fracture.
2) Pediatric Orthopedic patients.
3) Patients with pin traction and external fixation.
4) Patients undergo closed reduction.

Data collection instrument and techniques

The tool will be used for the study is,
1) Demographic data
2) Social support scale
3) Mental well-being scale
4) Spiritual well-being scale
5) Activities of daily living scale
6) Orthopedic rehabilitative nursing care

Data collection procedure

The pre-test was conducted in patients with fracture femur admitted in selected hospital and underwent open reduction and internal fixation will be listed every day. Socio demographic variables, clinical details of the patients like social well-being, mental well-being, spiritual well-being and physical wellbeing of patients will be assessed after 48 hrs. of surgery.
Implementation of orthopedic rehabilitative Nursing care patients will be given training on early ambulation with weight bearing exercises, and isometric exercises to improve the physical wellbeing, the family members and friends will be involved with family counseling in order to improve the social well-being, teach and those clients with Bensons relaxation therapy to improve mental well-being and train the patients to do meditation by telling mantras in order to improve spirituality. Posttest will be assessed at the time of discharge and first follow up by using social support scale, mental well-being
scale, spiritual well-being scale, and activities of daily living scale in order to check the significant improvement in social, mental, spiritual, and physical wellbeing. Descriptive and inferential statistics were used for data analysis.

![Diagram showing percentage distribution of demographic data]

**Figure 1.** Frequency and percentage wise distribution regarding orthopedic rehabilitative nursing care of patients with lower limb fractures according to their demographic data

**Results**

The result shows that 1st post-test and 4th post test scores of level of orthopedic rehabilitative nursing care of patients with lower limb fractures difference in mean percentage found that for social wellbeing was 41%, spiritual wellbeing was 56%, mental wellbeing was 48% and activities of daily living was 37%.

The data revealed that in pretest the level of social, spiritual, mental wellbeing and activities of daily living for orthopedic rehabilitative nursing care of patients with lower limb fracture had inadequate orthopedic rehabilitative nursing care, but the 1st post-test had moderately adequate and 2nd, 3rd, 4th post-test had adequate orthopedic rehabilitative nursing care. There was no association between level of social, spiritual, mental wellbeing and activities of daily living for orthopedic rehabilitative nursing care of patients with lower limb fracture. Correlation was found in 1st, 2nd, 3rd, 4th post test with level of social, spiritual, mental and daily living activities. Results reveal that our alternative hypothesis was accepted.

**Conclusion**

The present study was conducted to assess the effectiveness of orthopaedic rehabilitative nursing care on wellbeing of patients with lower limb fractures. The study concluded that orthopaedic rehabilitative nursing care is highly effective and wellbeing of patients is independence, physically and socially, mentally, spiritually allowing them to return to their normal place of living where ever possible.

**References**

[1]. Department of Health. South Australia’s Health Care Plan, 2007-2016. Government of South Australia: Department of Health, Adelaide. 2007.
[2]. ADAM Proposal – Arthroplasty Demand and Management Proposal; Statewide Orthopaedic Clinical Network, SA Health, 2008 4 Osteoporosis Australia. Website: www.osteoporosis.org.au Accessed July 2009 for health professional guidelines, position papers and recommendations.
[3]. British Orthopaedic Association. The care of patients with fragility fracture. British Orthopaedic Association: London, England. 2007.
[4]. Orthopaedic. Prehabilitation Project - An optimized Discharge Planning Tool for Patients undergoing Hip and Knee Arthroplasty – development, implementation and evaluation – RGH.
[5]. Archer KR, Mackenzie EJ, Bosse MJ, Pollak AN and Riley LH 3rd (2009). Factors associated with surgeon referral for physical therapy in patients with traumatic lower extremity injury: Results of a national survey of orthopedic trauma surgeons. Physical Therapy 89 893–905.
[6]. Bergés IM, Ottenbacher KJ, Smith PM, Smith D and Ostir GV (2006). Perceived pain and satisfaction with medical rehabilitation after hospital discharge. Clinical Rehabilitation 20 724–30.
[7]. de Groot V, Beckerman H, Lankhorst GJ and Bouter LM (2003). How to measure comorbidity. A critical review of available methods. Journal of Clinical Epidemiology 56(3) 221–9.
[8]. Fondazione Don Carlo Gnocchi-ONLUS (No Date). Activities, Scientific Research. Available at: http://www.dongnocchi.it/documenti/eng/index_eng.htm (accessed May 14, 2012).
[9]. AFRM. Standards 2005: Adult Rehabilitation Medicine Services in Public and Private Hospitals. Australasian Faculty of Rehabilitation Medicine: Sydney, Australia. 2005.
[10]. Cripps RA, Harrison JE. Injury as a chronic health issue in Australia. Australian Institute of Health and Welfare: Canberra, Australia. 2008.
[11]. Hall SE, Williams JA, Senior JA et al. Hip fracture outcomes: Quality of life and functional status in older adults living in the community. Australian New Zealand Journal of Medicine. 2000; 30:327-32.
[12]. Bliuc D, Nguyen ND, Milch VE, Nguyen TV, Eisman JA, Center JR. Mortality risk associated with low-trauma osteoporotic fracture and subsequent fracture in men and women. JAMA. 2009; 302(5): 512-521.
[13]. Elliot JR, Wilkinson TJ, Hanger HC et al. The added effectiveness of early geriatrician involvement on acute orthopaedic wards to orthogeriatric rehabilitation. New Zealand Medical Journal. 1996; 109: 72-3.
[14]. SIGN. Prevention and management of hip fracture in older people: A national clinical guideline. Scottish Intercollegiate Guidelines Network: Edinburgh, Scotland. 2009.
[15]. Orosz GM, Magaziner J, Hannan EL. Association of timing of surgery for hip fracture and patient outcomes. Journal of the American Medical Association. 2004; 291:1738-43.