Functional Preferences of Patients Getting Physical Therapy Intervention after Hip Joint Replacement
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Abstract
Objective: Total hip arthroplasty (THA) is one of the most commonly performed and successful operations in orthopedic surgery in terms of clinical outcome. The purpose of this study was to evaluate the most common preferences in functional activities of patients with replacement.
Methods: A Descriptive cross sectional study was done and 61 patients were finally recruited through convenient non probability sampling. The study was conducted between 01 June to 30th Nov 2012 in various hospitals of Islamabad and Lahore. The data was collected through structured questionnaire and data was analyzed through SPSS 20.
Results: According to analyzed results 25 out of 61 were female and 36 out of 61 were male.7(11%) patients prioritized “pain relief”, 8 (13%) prioritized to “walk independently”, 17 (27%) prioritized to “return to work”, However 27 (44%) patients want to improve all the functional activities while the remaining 2% patients were not sure about what they want.
Conclusion: It is concluded that the main focus of patient after replacement is to gain functional activities independently. Return to work and walking independently are also major priorities after replacement. Further work can be done to explore the specific physical therapy interventions.
Key words: Hip, THR, Activity Level, Discharge Criteria, Physical Therapy

Introduction
The hip at the root of lower limb is a stable joint of human body.(1) The loading and unloading during the walking creates torque forces at hip joint.(2, 3) The hip arthroplasty procedure was performed in case of instability at the hip joint.(4, 5) The artificial implant is used to restore the stability of hip joint.(6) The cemented and biological fixation are the two types of implant for hip arthroplasty.(7) A hybrid type of fixation both cemented and biological component is more reliable and frequently used for the replacement purpose. The indication of implant depends on the level of instability and most commonly the condition of bone density. (8) The physical therapy is one of essential component after hip replacement. There is also very crucial role of preoperative physiotherapy

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for improving functional outcome after replacement.(9) The early weight bearing and mobilization is gold standard for attaining the optimum functional level and independent in activities of daily life. The early physical therapy intervention can improve the recovery process and also enhance the level of functional activities after replacement. It is also observed that the standardized protocol of physical therapy implementation have positive effect on the quality of life in patients. (10) The rehabilitation also correlate with the types of
surgical procedure, the minimum invasion has good impact in rehabilitation.\(^{(11)}\) This study was planned to analyze the different functional priorities of patient after replacement and different expectation of patients from physical therapist. The main objective of this descriptive study was to determine the most common preference of functional level that patients want to achieve after replacement. The purpose was to find the most preferred functional status in patient of replacement.

**Materials and Methods**

A descriptive cross sectional design was used to collect the data from patients. A sample of 70 was recruited through purposive non probability sampling technique but 61 responses were precise and accurate remaining was unclear and ambiguous. Patient with hip replacement were included in the sample and data was drawn from different hospitals of Rawalpindi/Islamabad and Lahore. A structured questionnaire was developed to analyze the preference of patient after replacement. The questionnaires were filled after 5 to 7 days of surgical procedures. The option in the proprieties included pain reduction, walking independently, return to work and all functional activities (included occupational, activities of daily life and walking independently). The response was included on the basis of priorities of patient after hip replacement. The data was analyzed through SPSS-20.

**Results**

The result shows that 41% were female and 59% were male. It is analyzed that out of 61, 7 patients prioritized “pain relief”, 8 prioritized to “walk independently”, 17 prioritized to “return to work”, over “walking independently/return to work”, “Pain/return to work “and “pain/ walk independently” respectively. However 27 patients want to improve all the functional activities while the remaining two patients were not sure about what they want.
Discussion
There is different evidence which shows that the functional activities are critical part after replacement. Yeh ML, Chen HH, Liu PH concluded that after replacement functional status can be improved with proper guidance. The self efficacy and length of hospital stay is also affected when appropriate care and guided instruction provided. The nursing guides also enhance the level of activity.\(^{(12)}\) the type of implant also provide the level of patient satisfaction, with solid and accurate internal implants enhance the courage which lead to increase the functional and quality of life.\(^{(13)}\) Bischoff-Ferrari H described that the pain also contributed in limiting the functional status. The psychological approach plays important role in achieving the functional level.\(^{(14)}\) Ilana N Ackerman and Kim L Bennell concluded that the preoperative physical therapy intervention improve the functional activities.\(^{(15)}\) JG Wright, S Rudicel; and AR Feinstein provided an evidence that pain and walking limitation may lead to the patient to select hip replacement.\(^{(16)}\)

Ann E. Rahmann, BPhty, Sandra G. Brauer, focused on the importance of strength of muscles after replacement. It is considered that some specific protocol of exercise leads to enhance the strength of muscles around the replaced joints.\(^{(17)}\) Catherine J Minns Lowe, Karen L Barker concluded that the physical therapy is more effective in instabilities of different joints. The intervention of physical therapy progress the recovery and gain the functional status independently after few weeks of replacement. It also enhances the quality of life in patient of hip replacement.\(^{(18)}\)

Conclusion
It is concluded that the male were most affected as compare to females. The most common priority of patient after replacement was to gain full functional activities independently. Returns to work and walk independently are the other priorities of patients. Pain reduction was the last priority of patient to achieve. A further work cab ne done to explore the comparison between different physical therapy interventions to achieve better functional activity level after replacement.

References


