



Quality of Life and Psychological Consequences in Elders after Hip Fracture

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Received date: June 16, 2021; Accepted date: June 30, 2021; Published date: July 7, 2021

Abstract

Objectives: To determine the quality of life and psychological consequences in elders after hip fracture.

Methods: This was a cross-sectional study, conducted in Benazir Bhutto Hospital Rawalpindi, Pakistan between September 2020 and April 2021. 40 older adults aged 40-65 years were selected anonymously. Pain, physical changes and mental level were evaluated in all groups. A SF-12 questionnaire was used to determine the physical activity of the participants.

Results: The current study was aimed to determine that after hip surgery in elderly patients, the quality of life deteriorates with age and psychological health also deteriorates with the age. The study results concluded that 42.5% had very good health condition, 92.5% had limited health in moderate activities and 95% had a lot of difficulty while climbing stairs. Furthermore, the findings showed that 100% had problem in accomplishing less than they would like because of poor physical and emotional health and 77% won't be able to perform activities of daily life.

Conclusion: We concluded from the study that after hip surgery in elderly patients, the quality of life deteriorates with age and psychological health also deteriorates with the age.

Key words: Hip fracture; Elderly; Quality of life; Emotional health.

Introduction

Hip fractures usually occur in several Western countries with a prevalence that's expected to extend from 1.66 million in 1990 to 6.26 million by 2050. Such injuries are considered a serious public pathological state among older adults that regularly ends up sustaining incapacity and loss of independence. The hip may be a true ball-and-socket joint encircled by powerful and well-balanced muscles, enabling a good vary of motion in many physical planes, whereas, conjointly exhibiting outstanding stability. Because of the structural link between the lower extremities, and also the skeletal structure, the hips not solely transmit forces from the bottom up, however; conjointly carry forces from the trunk, head and neck, and higher

extremities. Consequently, this joint is crucial to athletic activities within which it's usually exposed to several larger than traditional axial and torsion forces. The hip is exclusive anatomically, physiologically, and developmentally; and thus the diagnosing of pathologic conditions is tougher than for many joints. Attributable to these diagnostic challenges, the hip has received significantly less attention than alternative joints within the past, notably regarding medicine and surgery literature [1]. The hip may be a classical ball-and-socket joint. It meets the four characteristics of secretion or diarthrodial joint: it's a joint cavity; joint surfaces square measure lined with articular cartilage; it's a membrane manufacturing synovial, and; it's encircled by a ligamentous capsule [1]. The hip may be an articulation synovial is of the ball-and-socket selection shaped by the globe limb head cupped into the concave or socket of the hip bone. It plays a serious role within the static and dynamic physiology of the motion system and, though it's the foremost stable ball-and-socket joint within the body, it still maintains an unprecedented vary of motion. Descriptively the hip is often mentioned within the extended position. However, a transparent picture of the associate anatomical changes that occur throughout the total varies of joint motion forms an important adjunct to a correct analysis of the useful and pathological issues encountered [2]. Hip fractures square measure a serious reason for morbidity and mortality, and the majority occur when a fall. Hip fracture adversely affects health connected quality of life, with larger physical recovery mirrored in a higher quality of life [3]. Because the world population ages, the incidence of hip fractures can increase dramatically, being to blame for a rise in health expenditure [4]. Hip fracture in recent folk ends up in enlarging mortality and impaired quality of life and protracted physical morbidity square measure common. Psychiatrically ill health like depression and stress also are common in patients with hip fracture. It's related to high rates of re-admission and institutionalized when surgery [5].

Literature Review

Hip fracture is a very important social and medical downside thanks to its increasing prevalence, the results for health, and therefore, the economic impact on the health care system. However, there's little doubt that it conjointly has repercussions on health-related quality of life. Therefore the importance of understanding and deciding the impact of the condition on the way of life from the attitude of the patient's physical, emotional, and social well-being. In an exceedingly longitudinal study conducted in the European country, a sample of 696 patients was analyzed with associate degree age vary of 65 years or older. The results discovered that 371 patients had experienced poor quality of life and had become frail [6]. Patient-reported health-related quality of life is a very important outcome measuring once assessing quality of life once hip fracture surgery. In keeping with a report from the Norwegian hip fracture register, hip fractures dramatically have an effect on patient's health-related quality of life, with sustained deterioration even one year once the fracture. Moreover, recovery of mobile ability and independence in ADL once the surgery is additionally a very important objective outcome measuring. About half the patients regained mobile ability at their pre-fracture levels among half a dozen months once the surgery. Patients in World Health Organization were older cognitively impaired and World Health Organization had multiple co-morbidities that were predictably worse for purposeful recovery once hip fracture surgery. Withal, the

correlation between ADL and quality of life among geriatric patients once hip fracture surgery still leaves an area to be explored. In another prospective study conducted in Taiwan, the man of science collected knowledge from 117 elder patients undergoing hip fracture surgery. Once the 6-month follow-up, solely two-hundredth of old patients undergoing repair for hip fracture was ready to recover baseline ADL [7]. In another study conducted in Persia, a sample of eighty-eight older adults was analyzed. The results showed that four hundred and forty yards of the old had a worried of falling once hip fracture surgery [8]. Another prospective empiric cohort study was conducted at the medical science Department of Danderyd hospital in 2010-2013. The results showed that solely thirty-five patients had suffered from depression once hip fracture surgery [9].

Methodology

The study design is analytical Cross-sectional study. The study duration is 6 months from October 2020-April 2021. This research has been carried out on elders aged 40-65 years in the vicinity of Benazir Bhutto Hospital. The sample size was calculated by using online software "Rao Soft" with variance of 5, confidence level of 95%, response distribution 50% and the population size was taken 40. The resultant sample size recommended was 37. Non probability convenience sampling technique has been used because participants are selected based on availability and willingness to take part. Sample is selected by the inclusion/exclusion criteria:

Inclusion criteria:

- Age 40-65 years old
- Acute pain

Exclusion Criteria:

- Chronic pain
- Medications that changes the type and quantity of pain

The data was collected in Benazir Bhutto Hospital. Participants were selected non-randomly through convenient sampling method. Participants were given a questionnaire to correctly answer all the questions in the form related to pain, mental stress and physical pain. Informed consent was taken from the participants. Short Form Survey (SF-12) questionnaire was given to the participants. The SF-12 is a health-related quality-of-life questionnaire consisting of twelve questions that measure eight health domains to assess physical and mental health. Physical health-related domains include General Health (GH), Physical Functioning (PF), Role Physical (RP) and Body Pain (BP) [10].

Ethical considerations:

Research was conducted after taking informed consent from Benazir Bhutto Hospital and Participants. All patient identifiers like name, email id; telephone numbers remained confidential and were not used in any publication. Participant's cultural and moral values as well as privacy were respected in every way. Completed questionnaire was given numerical codes. In our study there was no significant ethical issue.

Results

Descriptive Analysis

In general, would you say your health is?

	Frequency	Percent
Excellent	1	2.5
Very good	17	42.5
Good	16	40
Fair	6	15
Total	40	100

Table 1: According to the results after surgery majority of the participants answered that their general health condition is very good *i.e.*, 42.5% of total participants.

Does your health limit you in moderate activities?

	Frequency	Percent
Limited a lot	3	7.5
Limited a little	37	92.5
Total	40	100

Table 2: 92.5% of participants after surgery answered that their health limits them a little in moderate activities.

Does your health limits you in climbing several flights of stairs?

	Frequency	Percent
Limited a lot	38	95
Limited a little	2	5
Total	40	100

Table 3: According to the results 95% participants had a lot of difficulty while climbing several flights of stairs.

DURING PAST 4 WEEKS, ANY PROBLEM IN ACCOMPLISHED LESS THAN YOU WOULD LIKE? OR DURING PAST 4 WEEKS, YOUR PHYSICAL HEALTH WERE LIMITED IN KIND OF WORK OR ACTIVITIES?

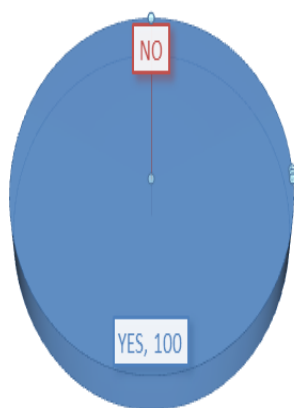


Figure 1: Results showed that during last month 100% of participant had problem in accomplishing less than they would like and also due to their poor physical health they were limited in performing activities of daily living.

During past 4 weeks, would you accomplished less as a result of emotional problem?

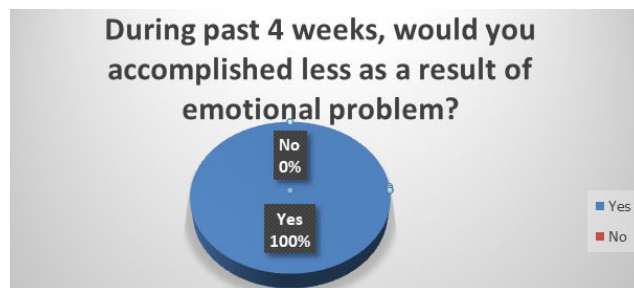


Figure 2: 100% participants were unable accomplish the task as they desire due to emotional problem in last 4 weeks.

During past 4 weeks, due to emotional problems didn't do work or other activities?

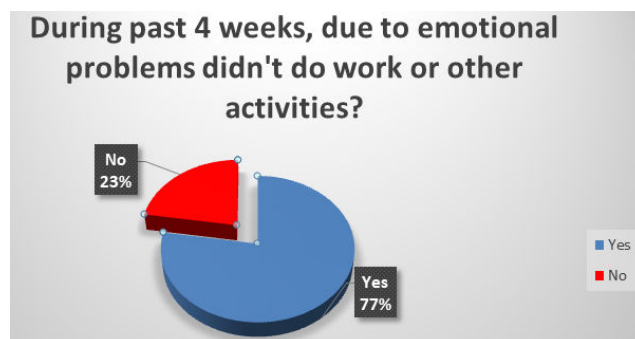


Figure 03: During past 4 weeks due to emotional problems 77% participants won't able to perform activities of daily living.

Grades	During past 4 weeks, how much of time have you felt calm and peaceful?	During past 4 weeks, did you have a lot of energy?	During past 4 weeks, have you felt downhearted and blue?	During past 4 weeks, how much of time has your physical health or emotional problems interfered with social activities?
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
All the time				
Most of the time				9(22.5%)
Good bit of time		39(97.5%)	2(5%)	31(77.5%)
Some of the time	29 (72.5%)	1(2.5%)	38(95%)	
Little of time	11(27.5%)			
None				
Total Participant	40	40	40	40

Table 4: Participants mental status the frequency

Inferential Results

Results from One way ANOVA for quality of life showed statistical

insignificant results i.e., ($p > 0.05$) also for psychological consequences one was ANOVA result was statistically insignificant ($p > 0.05$).

Discussion

The current study was aimed to determine that after hip surgery in elderly patients, the quality of life deteriorates with age and psychological health also deteriorates with the age. The study results concluded that 42.5% of total participants had very good health condition after hip fracture while 92.5% had limited health in moderate activities and 95% had a lot of difficulty while climbing stairs. Furthermore, the findings showed that during last month 100% of participants had problem in accomplishing less than they would like because of poor physical health that they were limited in performing activities of daily living and 77% won't be able to perform activities of daily life.

A similar study was conducted in 2003 in Netherland, by ROMKE VAN BALEN et al. to examine the quality of life and psychological consequences in elders after hip fracture. In 208 patients, only 18% of the participants had reached the same level of functioning before the hip fracture and remaining had low quality of life after hip fracture. RAP for functional status and NHP for changes in emotion, pain and energy scoring were also lowered in participants after hip fracture [11].

Another study was conducted in 2009 at Kashan University, Iran by Mohsen Adib Hajbaghery and Mohammad Abyssinia 140 patients including males and females were included in study. Study showed that the quality of life in patients with a history of hip fracture surgery was 9.17 times greater than the other people. The results of this study showed that quality of life especially self-care and usual activities of the elders after hip fracture surgery was significantly lower than those without a hip fracture. Adachi et al. and Hagino et al. performed the same study and found that the hip fracture decreases all the domains of Quality of life, especially physical and social functions [12].

Another descriptive study with older patients (aged 60 years and over) with hip fracture secondary to a fall was conducted in 2000. The results showed that the functional status was worse in male patients aged 80 or above. In this study we observed that the majority of male patients 94% didn't perform regular physical activities after hip fracture. Poor physical activity, observed to be a main cause of the weakness of the very older patients. In this study, researchers found a significant limitation in walking after the hip fracture, and a significant increase of the dependency on the walking supporting devices after the hip fracture [13].

Another study was conducted in 2013 at Taiwan by Yea-Ing, L. Shyu et.al in which 299 patients were randomized into 3 groups. Participants in both the comprehensive care and subacute care group had greater improvement in physical and social function than the usual care group. This study concluded that both comprehensive care and sub-acute care programmers may improve quality of life in elders with hip fracture [14].

Another study was conducted in 2015 in which several patients after hip fracture including males and females were included. The study showed that the patients aged 65 or elders had declined functional activities after hip fracture whereas the patients aged 74 or above had more pain at hip joints than the patients without hip fracture [15]. A study was conducted in Brabant, the Netherlands in which 696 patients after hip fracture were participated. Participants were followed up at 1 month, 3 months, 6 months and 1 year after hospital admission. The result showed that 371 patients had poor health status and quality of life after 1 year of hip fracture [16].

Conclusion

We concluded from the study that after hip surgery in elderly patients, the quality of life deteriorates with age and psychological health also deteriorates with the age.

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