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Research Article

Assessment of level of anxiety among the patients of knee osteoarthritis visiting the different Hospitals across Sindh and Balochistan

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Abstract

Objective: To evaluate the level of anxiety among patients with Knee Osteoarthritis.

Methodology: A cross-sectional survey was conducted in multiple hospitals in the Sindh and Baluchistan provinces of Pakistan from June to October 2020. A self-developed questionnaire was distributed amongst 292 patients, who were already diagnosed with Knee Osteoarthritis (KOA). The questions mainly consisted of demographic and disease-related questions. The Statistical Package for Social Sciences (SPSS) version 23 was used to interpret the data acquired from the questionnaires.

Result: The majority of the respondents (n=160, 54.8%) were males; (n=234, 80.1%) aged between 61 to 63 years. A substantial number of respondents (n=115, 39.4%) possessed a graduate degree in educational status, followed by 23.3% (n=68) who completed their higher secondary education. and (n=25, 73.6%) were permanent residents of an urban area. After examining the level of anxiety, we found that majority of the participants (n=118, 40.4%) were mildly anxious due to the disease.

Conclusion: The study determined that the patients suffering from knee osteoarthritis were understood to have mild anxiety because of the disease. To further elaborate on this, patients become slightly physically disable in the later stages of this disease which leads to anxiety and depression.

Introduction

Osteoarthritis (OA) is the most widely recognized age-related joint disease among all degenerative joint diseases in the world. Osteoarthritis is also identified as a significant cause of disability throughout the world. Primary osteoarthritis is of idiopathic and hereditary etiology and is more common in females. it affects the fingers, spine, hips, and knees. Secondary osteoarthritis affects the cartilage of joints because of an injury or another medical condition. The knee joint is quite possibly the most affected because Osteoarthritis (OA) generally affects weight-bearing joints[1,2]. Osteoarthritis is portrayed by the reformist deficiency of bone and ligament of the joints. A Patient with an anterior cruciate ligament

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(ACL) injury is more inclined to foster knee osteoarthritis. The presence of osteophytes and narrowing of the joint space are radiographic components to diagnose knee OA. After the age of 40 the commonness of osteoarthritis increases, and in individuals who are 65 years old, OA presents 75% of the time and it advances with age. In Pakistan, 28% of the population from metropolitan regions and 25% of the population from rural regions are influenced by knee osteoarthritis[2]. The occurrence of knee OA is regular in old females. Knee OA presents with pain, uneasiness, morning stiffness, and irritation particularly with the incapacity of the lower limbs. Seriousness and disability increase as the individual ages. Risk factors for knee OA are age, gender, weight, injury, hereditary qualities, life systems and smoking [2-4].

Psychosocial factors have been demonstrated to be indicators of agony and incapacity in various musculoskeletal conditions including constant knee pain, low back pain and neck pain. While two deliberate surveys of prognostic elements for knee pain have explicitly inspected a couple of psychosocial factors inside various segments (physical and patient-related components), no efficient audit has explicitly centered on looking at the connection between psychosocial variables and knee pain. Besides this, the proof from investigations of knee pain is clashing[4,5]. While a few cross-sectional examinations have detailed that there is no relationship between anxiety and knee pain, others have proclaimed burdensome side effects to be identified with pain in the knee joint. Understanding the connection between psychosocial factors and pain in the knees is significant on the off chance that we ideally oversee conditions involving the knees. The point of this audit was to efficiently survey the literature to decide if disability, tension and poor emotional well-being are risk factors for knee pain [3-7].

Material and methods

Study design, settings and duration

A cross-sectional descriptive study was conducted from June to October 2020, and data was collected from various hospitals in Sindh (Jinnah Postgraduate Medical Centre Karachi, Jijal Mauu hospital Hyderabad, Civil hospital Sukkur, RBUT Hospital Shikarpur) and Balochistan (Hope Physiotherapy Centre, Akram hospital Quetta, Shaikh Zaid hospital Quetta).

Sampling

Convenience Non-Probability Sampling Technique among the 292 selected participants was used. Participants of both genders (male & female), obese, of the age of 55 and above, suffering from bilateral knee pain for the last 2 years and those willing to participate were included in this study. Whereas participants of the age 54 and less and those people not willing to sign the consent form were excluded from this study.

Data collection tool

A self-constructed questionnaire was used to collect the data provided by the participants. The questionnaire included questions related to demographic characteristics; age, gender, education and locality. Furthermore, there were 6 different questions included to check the level of anxiety among the participants, and every question had 4 options ("Not sure", "Last few months", "Last few weeks" & "Nearly every day") to select from. The "Not sure" option was appointed 0 marks, "Last few months" was appointed 1 mark, the "Last few weeks" option was appointed 2 marks & "Nearly every day" was allotted with a score of 4 marks. There was a total score of 24, and each patient was marked according to the answer options they selected. The patient who ranged between 0 to 8 score was placed under "Minimal Anxiety", a patient scoring between 9 and 13 was assigned with "Mild Anxiety", a score of 14 to 18 was allotted "Moderate Anxiety" and the patients who scored more than 18 were designated "Severe Anxiety".

Data collection procedure

The participants were asked to fill the questionnaire on the spot, and only minor help was given upon request, to understand the questionnaire.

Data analysis procedure

Descriptive statistics; Categorical variables were measured as a frequency and percentage where continuous variables were expressed as mean and standard deviation.

Inferential statistics; Data was analyzed by using the Statistical Package for Social Sciences (SPSS) version 23.

Ethical concern

Ethical approval was taken from the Review Committee of Faculty of Pharmacy & Health Sciences, University of Balochistan, Quetta, Pakistan. For data collection, prior permission was taken from participants and an Informed Consent form was requested to be signed by the participants before data collection. The informed consent form stated

Table 1: Demographic Characterstics.

Characterstics	Frequency	Percentage
Age		
55 to 60	234	80.1
60 to 65	45	15.4
65 and above	31	4.5
Gender		
Male	160	54.8
Female	132	54.2
Education		
Religious Education	22	7.5
Secondary Education	31	10.6
Higher secondary Education	68	23.3
Graduate	115	39.4
Post-Graduate	56	19.2
Locality		
Urban	215	73.6
Rural	77	26.4

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that their participation is voluntary, the information of their responses will be kept confidential and that they can withdraw from the study at any time they wished to do so.

Results

Demographic characteristics

Demographic Characteristics are described in Table 1, which shows that the majority (n=234, 80.1%) belongs to the age group 'between 55 to 60 years.' 54.8% of the participants were male (n=160). After assessing the educational status of the patients, the majority of the participants (n=115, 39.4%) attained a graduate degree, followed by 23.3% (n=68), who attained higher secondary education. and 73.6% (n=215) were from urban areas, whereas 26.4% (n=77) of the patients belonged to rural areas Table 1.

Anxiety assessment response

In table no 2, the 6 anxiety-related questions were answered by the respondents, which shows that majority of the participants (n=105) were not sure whether or not they were feeling nervous, (n=93) were not able to control their apprehension due to the disease, and (n=99) were worried due to a different episodic event occurring in their life after their diagnosis of knee osteoarthritis. Moreover, the majority (n=96) of participants were not able to relax since the last few months, and (n=99) were not able to rest even after they were fatigued, and (n=91) remained anxious after they were diagnosed with osteoarthritis Table 2.

Level of anxiety

The level of anxiety is described in Table 3, which states that the majority (n=18, 40.4%) of the participants were found to be mildly anxious followed by 31.8% of the participants (n=93), who were moderately anxious Table 3.

Table 2: Anxiety assessment response.

Characterstics	Not sure	Last few months	Last few weeks	Nearly every day
Are you Feeling nervous or anxious?	105	90	67	30
I am not able to control my worriedness due to the disease.	93	92	63	44
I am worrying to much about the different thing happening in my life after the disease?	76	99	55	62
I am not able to relax myself	94	96	50	52
After tiredness it's still difficult to get relax.	99	73	82	38
I usually remain afraid.	91	75	68	58

Table 3: Level of Anxiety.

Characterstics	Frequency	Percentage
Minimal Anxiety	52	17.8
Mild Anxiety	118	40.4
Moderate Anxiety	93	31.8
Severe Anxiety	29	9.9

Discussion

This study revealed that 40.4% of our selected population of patients suffering from Knee Osteoarthritis (KOA) were experiencing a mild level of anxiety. Studies conducted by Eric C. Sayre, et al. concluded that patients with KOA suffer from anxiety due to painful movement of limbs. As patients grow older, their knees become weak as they support most of the weight of the body, and due to wear and tear as they help in walking, bending, sitting down and standing up. Individuals have to perform daily routine work, but they may not be able to perform all their activities due to the pain, and this perception of disability will result in a psychological impact on the patients' psyches that will push the individual towards anxiety and depression, causing mental disability[6-9].

Furthermore, it is also noted that knee osteoarthritis brings a negative impact on a patient's socioeconomic status as they cannot perform at their jobs more efficiently which may affect their income, And an increase in medical expenses to treat the disease [10,11]. However, the acknowledgement of the irreversible nature of KOA puts a negative impact on the patient's mental health that also paves the way towards anxiety and depression [11-13]. It has also been noted that anxiety may occur due to the prolonged use of Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) to subside the pain, as anxiety is a common side effect of NSAIDs[9,14].

Conclusion

The level of anxiety among the patients with Knee osteoarthritis should be assessed across all the hospitals of Pakistan as the level of anxiety among patients is measurable.

Limitations

This study was conducted in a few hospitals across Sindh and Balochistan, therefore it cannot show the full aspect of the level of anxiety among the patient of knee osteoarthritis.

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