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Post-Amputation Anxiety Among Patients Reporting to Rehabilitation Centers in Quetta

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Author`s Contribution

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ABSTRACT

Objective: To evaluate the level of Post-amputation anxiety among patients reporting to rehabilitation centers in Quetta

Methodology: This Cross-sectional research was done in Quetta at the three rehabilitation centres from May-July 2018. Clients with amputations were included, and then data collected through a structured-adopted questionnaire for "Hospital Anxiety and Depression Scale". 54 subjects were involved, according to inclusion & exclusion criteria. Frequencies and percentages were described for categorical variables, and data was stratified by reason for amputation, gender, level of education, and marital status with respect to an outcome variable, anxiety. The collected data was then tabularized & analyzed by using Chi-square test.

Results: Out of 54 participants, 47 were men while 7 were women. Data displayed that 30 (55.6%) were normal & 24 (44.4%) had anxiety. 49(91%) & 5(9%) participants were having lower & upper limb amputations, respectively. Results indicate that level of anxiety among participants had a statistically non significant relationship with a level/type of amputation.

Conclusion: Anxiety and amputation have significant impacts on functional impairment, psychological reactions, and quality of life. The research highlights the association between amputation and anxiety, providing insight to healthcare providers that anxiety is a common occurrence in the context of amputation. The findings of this study can be valuable for prevention strategies.

Keywords: Amputation, Anxiety, level, Sociodemographic.

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Introduction

Anxiety may be defined as "apprehension, uneasiness, or tension that stems from an anticipation of danger, which may be external or internal".[1] Amputation is "A removal of the limb or its part due to medical causes/reasons. It is necessary in case of life-threatening situation or incurable ailment. Nowadays, the proportion of people having psychiatric (depression & anxiety) disorders is surging swiftly, specifically diseased people, war victims, and survivors of road traffic accidents (RTAs).[2,3]

Anxiety and amputation results in substantial functional impairment, a range of psychological reactions, poor quality of life and economic burden [4]. RTA's are also among the causes of up-surging no of trauma associated injuries (including neck and head region) about 1.25 million folks succumb annually to RTA.[5] Worldwide, approximately 300 million the population suffer from depression and other mental illnesses and are not living normal lives. [6] Disable folks are particularly prone to other illnesses as well, engage in risky behavior, and even die prematurely. Roughly 15% folks are disable in world, and census of 1998 revealed that Pakistan accounts for the 2.54% of total. Globally, almost more than one-billion people are considered disable, who face lot of physical limitations in their routine.[7]

Types of amputation include the lower limb amputation and upper limb amputation, including Partial Foot Articulation (PFA), Knee Disarticulation Amputation (KDA), Shoulder Disarticulation Amputation (SDA),

Transradial Amputation (TRA), Transfemoral Amputation (TFA), Transtibial Amputation (TTA) etc. [8,9] Limb loss is a serious problem in many countries. Nearly 150,000 patients in the United States each year have undergone leg amputations.[10,11]

Several researches[5,7] have claimed that, anxiety & depression are the eventual outcome of every single person who has lost any of his/her body part and become disabled forever. The incidence of psychiatric conditions ranges from 32-84%, making it one of the highest incidences among Indians.[12] Previous research has shown that nearly 20-60% of people with disabilities seeking treatment for illness experience anxiety & depression.[3]

Various potential risk factors, sociodemographic e.g. low income, female gender, social isolation, life events, physical illness, and loneliness, have been reported among older anxiety patients. There are multifaceted over-lapping pathways of effects for relations b/w mental health and socioeconomic factors. In order to make their life's quality better, we must understand their issues. [13,14]

The aim of study was to evaluate the level of Post-amputation anxiety among patients reporting to rehabilitation centers in Quetta

Methodology

A three-month cross-sectional study was conducted in Quetta at three rehabilitation centers, including one public sector center and two NGO-based centers, from May to July 2018. The study included individuals with amputations resulting from both traumatic and non-traumatic causes. Data was collected from all 54 subjects visiting these centers through a structured questionnaire based on the "Hospital Anxiety and Depression Scale" (HADS). The inclusion criteria for the study encompassed individuals with unilateral amputations of the lower and upper limb, regardless of the time since amputation (from newly amputated to ten years), and those with no history of psychological conditions.

The exclusion criteria for this study included individuals with bilateral amputation, amputees from the Republic of Afghanistan, and those with amputation due to congenital malformation. The principal investigator and trained data collectors were involved in the study. A respondent-centered quantitative tool was used to address any queries and questions regarding the care of amputees. Frequencies and percentages were calculated for categorical variables, and the data was stratified based on the reason for amputation, gender, level of education, and marital status in relation to the outcome variable of anxiety. The collected data was tabulated and analyzed using the Chi-square test.

Results

Out of 54 participants, 47 were men while 7 were women. 26(48.1%) were un-educated. 35 (64.9%) were living in village while 19 (35.1%) were the residents of city. Socio-demographics are summarized in table I.

Table I: Sociodemographic characteristics of participants

Sociodemographic Category	N (%)
Gender	
Male	47 (87)
Female	07 (13)
Living area/conditions	
City	19 (35.1%)
Village	35 (64.9%)

49(91%) participants were having lower-limb amputation whereas only 5(9%) have upper-limb amputation. Trans-Femoral Amputation (TFA) and Trans-tibial Amputation (TTA) were 20(37%) & 27 (50%) respectively. Transradial amputation and Knee Disarticulation were 3 (5.55%) and 2 (3.7%) respectively. (Figure 1)

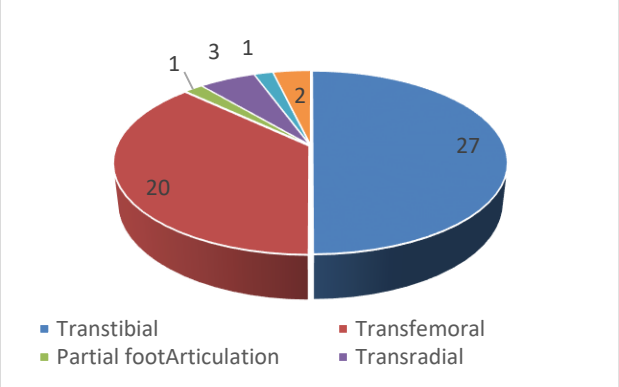

Figure 1. Types/Levels of an amputation among participants

Table II: Levels of an Anxiety in relation to area of living.

Living conditions	Level of anxiety [N (%)]				
	Normal	**Moderate**	**Severe**	**Total**	**P value**
Village plane	14 (46.7%)	6 (66.7%)	4 (26.7%)	24 (44.4%)	
City plane	9 (30.0%)	2 (22.2%)	6 (40.0%)	17 (31.5%)	
Village hilly	5 (16.7%)	1 (11.1%)	5 (33.3%)	11 (20.4%)	0.47
City hilly	2 (6.7%)	0 (0%)	0 (0%)	2 (3.7%)	
Total	**30 (55.55%)**	**9 (16.66%)**	**15 (27.77%)**	**54 (100%)**	

Based on HADS, data displayed that 30 (55.6%) were normal & 24 (44.4%) had anxiety. There was none significant-relationship of an anxiety with area of living. (Table II)

Table III: Anxiety according to the level of amputation. N(%)

Level of amputation	Normal		Moderate		Severe		Total		P value
Transtibial	17	56.7%	3	33.3%	7	46.7%	27	50%	0.26
Transfemoral	9	30.0%	4	44.5%	7	46.7%	20	37.03%	
Partial foot Articulation	1	3.3%	0	0.0%	0	0.0%	1	1.9%	
Transradial	1	3.3%	2	22.2%	0	0.0%	3	5.55%	
Shoulder Disarticulation	0	0.0%	0	0.0%	1	6.6%	1	1.9%	
Knee Disarticulation	2	6.7%	0	0.0%	0	0.0%	2	3.7%	
Total	**30**	**55.55**	**09**	**16.66**	**15**	**27.77**	**54**	**4.348**	

Statistical-non significant relationship of an anxiety with a level/type of amputation. (Table III)

Discussion

Anxiety ailments are evaluated to have highest life-time prevalence rates among all psychiatric maladies.[15] Sixteen per cent of an entire load of sicknesses is because of trauma globally.[14] Amputation is thought amongst one of the greatest public health worries as it up surges load on health system & society. [6]

In our study, 16 out of 35 (45.7%) individuals from the village and 8 out of 19 (42.1%) individuals from the city were moderately or severely anxious. This finding aligns with previous research indicating that men from rural areas tend to experience more issues related to anxiety.[16] Our study did not find a significant relationship between anxiety and the area of residence, which is consistent with other studies that have reported no difference in the rates of psychiatric ailments between urban and rural areas.[17,18]

Facial trauma is mostly caused by RTA. Prominent anatomical structures, for instance lips, nose and ears, are usually involved. Reconstructing facial affected parts, afterwards traumatic amputation is of a particular interest due to psychological & functional impacts such accidents/incidents have on the patients. [19] So, they had to visit dental surgeons, as teeth & oral cavity are very significant for emotional & psychological wellness along with speaking & chewing. Persons are also cognizant as chances of cross-contamination are there always in dental setup.[20-23] Lower-extremity amputation is associated with the lower or poor quality of life, shorter life expectancy & higher cost of treatment. Henceforth, reliable data on the incidence of amputations are of paramount importance for health policy, planning, and also health economy to bring about structural improvements. [24]

5.55% subjects in this research reported trans-radial amputation, which is far less than (36%) reported by another author.[25] In this study, 20.4% & 18.5% patients were primary & secondary school certified, which is comparable to another research where this percentage was 25.1% and 55.1% respectively.[26] In this investigation, Trans-Femoral Amputation (TFA) and trans-tibial Amputation (TTA) were 20(37%) & 27 (50%) respectively. This is comparable to (34.91% for TFA & 63.21% for TTA) described by another investigator.[27] This is similar to another research where transfemoral amputees were 37.1% & trans-tibial amputees was more than 53%.[28] Another investigation disclosed that 78% of lower-limb amputations were trans-tibial amputations. [29]

Additionally, various socio-economic, psychosocial problems could occur in these peoples.[14] Similar conclusions were drawn by other researches, where patients showed higher/more anxiety with amputation. Thus, an entire rehabilitation process and health-seeking behaviors are disrupted owing to psychiatric-related problems. Thus, it is absolutely essential to identify and diagnose the manifestation of psychiatric problems in amputees before starting rehabilitation. [30]

Conclusion

Results of this study can be useful for prevention planning. Amputation has association/link with anxiety. Our research provides an intuition to health-care givers that an anxiety occurs at some point in the context of amputation.

Limitations: Small sample size. Duration/time since an amputation was not stated in this study. Due to specific hours of rehabilitation at the centers, it was difficult to gain confidence of most participants. Difficulty during collection of data owing to the cultural values/norms of that region.

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