

## Level of Depression and Anxiety and Associated Factors Among the Traumatic Orthopedic Injured Inpatients of District Swabi, Pakistan.

Dr. Zahoor Ahmad <sup>1</sup>

<sup>1</sup> DPT, MS-OMPT, PCT, C-KTP, C-SMT, C-PJMT, Assistant Professor/ Head of Department, NCS University, Swabi CAMPUS Email: [Zahoor\\_riphah@hotmail.com](mailto:Zahoor_riphah@hotmail.com) ORCID:0000-0003-1542-4183.

Author & Corresponding Author: Dr Zahoor Ahmad

**DOI:** <https://doi.org/10.63163/jpehss.v3i3.527>

### Abstract

**Purpose:** Common mental, psychiatric disorders such as depression and anxiety in traumatic patients of orthopedic received a little attention in the study. The objective of the study was to examine the predominance of enthusiastic clutters among traumatic orthopedic injury patients and distinguish statistics, social and clinical chance variables.

**Material and Methods:** This cross-sectional think about was performed in Traumatic injured patients with orthopedic injury conceded to government hospitals of district Swabi between September 2021 and February 2022. The sample size was 306 and convenient sampling technique was used. Hospital Anxiety and Depression Scale (HADS) and visual analog scale were utilized to assess the seriousness of uneasiness and misery status.

**Result:** the total number of participants was 306. For pain evaluations the visual analog scale was used; 36(11.8%) participants were in mild pain, 140(45.8%) participants were in moderate pain and 130(42.5%) participants were in severe pain and the mean and SD of visual analog scale were  $3.30 \pm 0.67$ . With respect to hospital anxiety and depression, the 18(5.9%) participants were normal, 76(24.8%) participants were in borderline of anxiety and depression and 212(69.3%) were in abnormal level of anxiety and depression and the mean and SD of hospital depression and anxiety scale were  $2.63 \pm 0.59$ .

**Conclusion:** This study concluded that the prevalence of anxiety and depression is more in male than female in inpatients of district Swabi likewise the visual analog scale also showed that male was more affected by pain. Visual analog scale also reported that fracture patients were in severe pain than joint dislocation and soft tissue problems. With respect to hospital anxiety and depression scale the fracture patients were in more in abnormal level of anxiety and depression than joint dislocation and soft tissue disease.

**Keywords:** Inpatients, orthopedic injuries, depression, anxiety

### Introduction

Long-time period morbidity dangers encompass decreased bodily function, worse first-rate of life, intellectual troubles, and mind damage (i.e., encephalopathy, polyneuropathy and cognitive squealed (1). Anxiety Depression and anxiety are ordinary psychiatric morbidities related to vital infection (2). The aggregate of medications, annoying stress, pain, inflammation, hypoxemia and mind harm can also additionally make contributions to psychiatric issues following vital infection and ICU treatment (3). The prevalence and severity of intellectual troubles in vital infection survivors varies, with documented incidence fees starting from 17–forty-eight percentage to 60 months following ICU release. Depression impacts 25% to 50% of these who've survived an excessive infection (4). Anxiety and melancholy all through being pregnant influence approximately 13% and 21.7 percent of ladies, respectively. Antenatal melancholy may be as excessive as 19 percent among ladies hospitalized for obstetrical risk (5). Depression and/or anxiety all through being pregnant had been connected to horrific mother fitness behaviors, which includes smoking and gaining weight, in addition to terrible start outcomes, which includes preterm hard work and delivery (6).

It has been determined that humans with clinical disorder have a more risk of growing an intellectual situation than the overall population (7). According to numerous studies, the superiority of intellectual troubles among inpatients with a clinical situation degree among 30% and 60% (8). Concurrent intellectual ailments tend to be connected to a discounted capacity to reply to clinical therapy, a patient's compliance with remedy, an extended sanatorium stay, and a hazard of morbidity. Despite this, many humans with pathological anxiety cross not noted in clinical settings (9). Despite the full-size frequency and importance of melancholy in inpatients,

the fee of identity stays low or extraordinarily low (10). Although consultation-liaison psychiatry (CLP) offerings in popular hospitals in Western countries have lengthily identified the healing relevance of comorbidity of melancholy and somatic diseases (11). Only self-mentioned equipment was hired to degree melancholy with inside many studies which have decided the superiority of melancholy among inpatients (12). Mentally ill humans have a more demise fee than those who aren't mentally ill, in line with studies. Many studies tracked humans in inpatient or outpatient psychiatric remedy and compared their demise charges to the ones within the popular community. Focusing on remedy samples, on the alternative hand, leaves out most individuals with intellectual ailments who've no longer passed through therapy (13). Anxiety issues are critical public fitness troubles that motivate continual impairment, a discount in fine of life, and a lack of family, social, and vocational activities (14). According to epidemiological studies, those ailments account for many intellectual troubles visible within the population. Anxiety issues influence round 6.5–7.3% of the general population (15). The anxiety module of the Hospital Anxiety and Depression Scale is a normally used questionnaire (HADS-A). Only one previous study, to the author's knowledge, checked out its diagnostic accuracy in diagnosing GAD in most cancers' patients, and the extensively hired threshold no longer judged suitable (16). As a result, spotting and efficaciously treating concomitant intellectual ailments can be crucial to resolving this clinical issue (14)

### Methodology

After approval of our research proposal by the institutional review board, permission for study was taken from the ethical committee of NCS University Swabi. This was a cross-sectional survey, and data was collected from the admitted patients of all government hospitals of district Swabi. Cross sectional survey was done, and convenient sampling techniques were carried out to include the participants in the study. Convenient sampling technique is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. Data was collected from total of 306 patients, and the sample size was calculated using an online calculator "Raosoft" with confidence level of 95% and 50% response distribution. Data was collected through Hospital anxiety and depression scale (HADS) and visual analog scale and self-structure demographic questionnaires. The questionnaire had a total of 21 questions. Those patients who were willing to study part-timely signed the consent form and filled in the questionnaire. Data was analyzed using SPSS version 22. Mean  $\pm$  S.D, range and standard deviation for demographic data were measured.

### Results

The sample size was 306; out of total 306 participants the frequency of male participants was 279(91.2%) and frequency of female participants were 27(8.8%). The results indicate that majority of the participants were male in this study. The frequency of age between 21 to 30 years was 10 (3.3%), between 31 to 40 years were 46(15%), between 41 to 50 years were 213(69.6%) and the age more than 50 years were 37 12.1%). Which showed most of the participants were between the age of 41 to 50 years and the mean and SD of age were  $3.90 \pm 0.62$ . The frequency of unmarried patients was 35(11.4%) and married were 271(88.6%) and the mean and SD of Marital Status were  $1.88 \pm 0.31$ . 38(29.4%) participants were illiterate and 268(87.6%) were literate and the mean and SD of education were  $1.87 \pm 0.33$ . With respect to past medical history the frequency of diabetic patients was 90(29.4%), hypertension patients were 131(42.8%), past surgery operated patients were 37(12.1%) and the frequency of other disease (other than DM, HTN, Surgery). Most of the participants were affected by hypertension and the mean and SD of past medical history  $2.14 \pm 1.01$ . The frequency of inpatient with respect of weeks; the frequency admitted patients of less than one week were 12(3.9%), two weeks admitted were 36(11.8%) and 3 or more than three weeks were 258(84.3%) and the mean and SD of admitted in hospital with respect to weeks were  $2.80 \pm 0.48$ . The frequency of inpatients with the injury of fracture were 246(80.4%), Joints dislocation injured were 31(10.1%) and soft tissues injured were 29(9.5%). With clearly showed that the majority of inpatients were with the injury of fractures and The mean and SD of types of injury were  $1.29 \pm 0.63$ . For pain evaluations the visual analog scale was used; 36(11.8%) participants were in mild pain, 140(45.8%) participants were in moderate pain and 130(42.5%) participants were in severe pain and The mean and SD of visual analog scale were  $3.30 \pm 0.67$ . With respect to hospital anxiety and depression, the 18(5.9%) participants were normal, 76(24.8%) participants were in borderline of anxiety and depression and 212(69.3%) were in abnormal level of anxiety and depression and the mean and SD of hospital depression and anxiety scale were  $2.63 \pm 0.59$ . (Table 1,2)

Majority of the male participants (136) were reported moderate pain and 130 were in severe pain with respect to visual analog scale of pain. Likewise in hospital anxiety and depression scale the

majority of participants (185) were males in abnormal level of HADS but only 27 females were reported abnormal level of anxiety and depression. The frequency of severe pain in fracture was 106 and joint dislocation were 24 with respect to visual scale but 169 participant of fracture and 14 participants of joint dislocation were in abnormal level of depression and anxiety scale. (Figure 01) 174 participants of illiterate and only 38 participants of literate were abnormal level of hospital anxiety and depression scale. More of the participants (169) of Fracture were in abnormal level of depression and anxiety than joint dislocation (14) and soft tissue (29).

## Discussion

The goal of this examining became to decide the Level of depression and anxiety and related elements some of the disturbing orthopedic injured inpatients of district Swabi. The result confirmed that maximum of members had been male to document sever ache thru visible analog scale. Hospital anxiety and depression scale witness that the anxiety and depression in male had been strange stage. Out of overall 306 player 185 male had been in strange degree of depression and anxiety. A examine carried out via way of means of Malgorzata Gambin at al., (2018) in USA, that suggested No proof of a moderating function of gender has been observed.(17) The gift examine display that According to gender 233 (68.5%) had been male and 107 (31.5%) had been girl, 191 (56.2%) the superiority of anxiety is greater in male than girl and depression is greater in girl than adult males. Another examines carried out via means of Jane Walker, et al., (2018) in UK, the proof shows a probable incidence excessive sufficient to make it profitable screening sanatorium inpatients for depression. (18) The present day examines fund that Anxiety and depression is greater in the ones sufferers who's admitted for long term in sanatorium. Fatih Basak et al., (2015) in turkey observed that girl sufferers, sufferers older than 35 years, sufferers with low socioeconomic popularity and occasional training stage had an incredibly better hazard of anxiety. In addition, sufferers with low training and a sanatorium live more than seven days had been susceptible to depression. Logistic regression evaluation discovered that socioeconomic popularity and training stage had been strongly predictive for anxiety. The presence of anxiety has proven to be strongly predictive for depression. (19) The end result of this examines had been additionally aid the end result of present day examine wherein Anxiety and depression is greater in illiterate than literates. Another examines in China a complete of 323 inpatients (213 adult males and one hundred ten females) which observed Female sufferers had more potent emotional reactions to accidents than adult males. Persistent anxiety and depression signs and symptoms had been related to the length of hospitalization. (20) A examine on "Screening for Depression and Anxiety in Cancer Patients Using the Hospital Anxiety and Depression Scale" became carried out which suggested that the HADS became a without difficulty administered device that diagnosed a massive share of most cancers sufferers as having excessive ranges of anxiety or depression. (21) A examine in Norway the Hospital Anxiety and Depression Scale (HADS), became applied. Depressive signs and symptoms (HADS) had been visible in 14 sufferers. Symptoms of anxiety (HADS) had been visible in 12/14 the superiority of depression continues to be truly better than with inside the preferred population, however now no longer as excessive as with inside the preceding research on general hospital patients. (22) The end result of this examine had been additionally aid the end result of present day examine wherein the Anxiety and depression is excessive.

## Conclusion

This study concluded that the prevalence of anxiety and depression is more in male than female in inpatients of district Swabi likewise the visual analog scale also showed that male was more affected by pain. Visual analog scale also reported that fracture patients were in severe pain than joint dislocation and soft tissue problems. With respect to hospital anxiety and depression scale the fracture patients were in more in abnormal level of anxiety and depression than joint dislocation and soft tissue disease.

## Notes:

### Conflict of Interest

No potential conflict of interest relevant to this article was reported.

## Acknowledgments

The authors received no financial support for this article.

## References

Hopkins RO KC, Suchyta MR, Weaver LK, Orme Jr JF. Risk factors for depression and anxiety in survivors of acute respiratory distress syndrome. General hospital psychiatry. 2010;32(2):147-55.

- Righy C, Rosa RG, da Silva RTA, Kochhann R, Migliavaca CB, Robinson CC, et al. Prevalence of post-traumatic stress disorder symptoms in adult critical care survivors: a systematic review and meta-analysis. *Critical Care*. 2019;23(1):1-13.
- Hopkins RO, Key CW, Suchyta MR, Weaver LK, Orme Jr JF. Risk factors for depression and anxiety in survivors of acute respiratory distress syndrome. *General hospital psychiatry*. 2010;32(2):147-55.
- Hopkins RO, Weaver LK, Collingridge D, Parkinson RB, Chan KJ, Orme Jr JF. Two-year cognitive, emotional, and quality-of-life outcomes in acute respiratory distress syndrome. *American journal of respiratory and critical care medicine*. 2005;171(4):340-7.
- Byatt N, Hicks-Courant K, Davidson A, Levesque R, Mick E, Allison J, et al. Depression and anxiety among high-risk obstetric inpatients. *General Hospital Psychiatry*. 2014;36(6):644-9.
- Jarde A, Morais M, Kingston D, Giallo R, MacQueen GM, Giglia L, et al. Neonatal outcomes in women with untreated antenatal depression compared with women without depression: a systematic review and meta-analysis. *JAMA psychiatry*. 2016;73(8):826-37.
- Šprah L, Dernovšek MZ, Wahlbeck K, Haaramo P. Psychiatric readmissions and their association with physical comorbidity: a systematic literature review. *BMC psychiatry*. 2017;17(1):1-17.
- Wang J, Wu X, Lai W, Long E, Zhang X, Li W, et al. Prevalence of depression and depressive symptoms among outpatients: a systematic review and meta-analysis. *BMJ open*. 2017;7(8):e017173.
- Roy-Byrne PP, Davidson KW, Kessler RC, Asmundson GJ, Goodwin RD, Kubzansky L, et al. Anxiety disorders and comorbid medical illness. *General hospital psychiatry*. 2008;30(3):208-25.
- Zhong B-l, Chen H-h, Zhang J-f, Xu H-m, Zhou C, Yang F, et al. Prevalence, correlates and recognition of depression among inpatients of general hospitals in Wuhan, China. *General hospital psychiatry*. 2010;32(3):268-75.
- Mudgal V, Rastogi P, Niranjana V, Razdan R. Pattern, clinical and demographic profile of inpatient psychiatry referrals in a tertiary care teaching hospital: a descriptive study. *General psychiatry*. 2020;33(4).
- Bossola M, Ciciarelli C, Conte GL, Vulpio C, Luciani G, Tazza L. Correlates of symptoms of depression and anxiety in chronic hemodialysis patients. *General hospital psychiatry*. 2010;32(2):125-31.
- Pratt LA, Druss BG, Manderscheid RW, Walker ER. Excess mortality due to depression and anxiety in the United States: results from a nationally representative survey. *General hospital psychiatry*. 2016;39:39-45.
- Kayhan F, Cicek E, Uguz F, Karababa İF, Kucur R. Mood and anxiety disorders among inpatients of a university hospital in Turkey. *General hospital psychiatry*. 2013;35(4):417-22.
- Wichstrøm L B-NT, Angold A, Egger HL, Solheim E, Sveen TH. Prevalence of psychiatric disorders in preschoolers. *J Child Psychol Psychiatry*. 2012 Jun;53(6):695-705. doi: 10.1111/j.1469-7610.2011.02514.x. Epub 2011 Dec 29. PMID: 22211517.
- Cassiani-Miranda CA, Scoppetta O, Cabanzo-Arenas DF. Validity of the hospital anxiety and depression scale (HADS) in primary care patients in Colombia. *General Hospital Psychiatry*. 2021.
- Gambin M, Sharp C. The relations between empathy, guilt, shame and depression in inpatient adolescents. *Journal of Affective Disorders*. 2018;241(0165-0327):381-7.
- Martens EJ, de Jonge P, Na B, Cohen BE, Lett H, Whooley MA. Scared to death? Generalized anxiety disorder and cardiovascular events in patients with stable coronary heart disease: The Heart and Soul Study. *Archives of general psychiatry*. 2010;67(7):750-8.
- Basak F, Hasbahceci M, Guner S, Sisik A, Acar A, Yucel M, et al. Prediction of anxiety and depression in general surgery inpatients: A prospective cohort study of 200 consecutive patients. *International Journal of Surgery*. 2015;23:18-22.
- Wu H, Zhang F, Cheng W, Lin Y, Wang Q. Factors related to acute anxiety and depression in inpatients with accidental orthopedic injuries. *Shanghai archives of psychiatry*. 2017;29(2):77.
- Carroll BT, Kathol RG, Noyes Jr R, Wald TG, Clamon GH. Screening for depression and anxiety in cancer patients using the Hospital Anxiety and Depression Scale. *General hospital psychiatry*. 1993;15(2):69-74.
- Værøy H, Juell M, Høivik B. Prevalence of depression among general hospital surgical inpatients. *Nordic journal of psychiatry*. 2003;57(1):13-6.