

EDITORIAL

DEPRESSION AND TRAUMA

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Musculo skeletal trauma and depression are closely associated, and it's difficult to say which one precedes the other.¹ Patients with prolonged history of social activity loss like job absence, loss of academic year or inability to take part in sport's mega event due to injury can lead to depression in many of them. On the other hand person having depression symptoms are more prone to trauma and accidents. Moderate to severe depression up to 45% has been reported in patients with musculo skeletal trauma.²

Majority of trauma patients are young people as they are more mobile and active in routine life.³ Some of these patients may have prolonged bed ridden advice by their physicians, either due to aggressive nature of injury or due to some complications. This leads to study/sports/job disturbance and feeling of lagging from their colleagues may develop depression. There are some studies that correlate poverty and low income with depression.⁴ Also some other studies shows stress at job can lead to trauma and vice versa.⁵

Trauma usually causes pain and patients need analgesics. Sometimes pain may be disabling and requires potent analgesics like Opioids. Opioids causes' good pain relief but prolonged use may lead to addiction and in some studies opioid use is linked with symptoms of depression.⁶ Patients sustaining traumatic brachial plexus injuries usually have miserable pain complaints and tries to use different medications for that. Symptoms of psychological distress and depression are also seen in traumatic brachial plexus injuries, and these rates are higher

than general population and majority of these patients attribute psychological symptoms to injury.^{1,7}

Complications of illness or treatment and prolonged hospital stay are also among the causes of psychological symptoms in musculoskeletal injured patients.⁸ In polytrauma patients multiple surgeries are required, that need prolonged hospitalization, financial burden and loss of social activities. Sometimes simple and single injury gets complicated due to multiple reasons like lack of facilities, lack of expertise, poor patient's compliance, antibiotic's resistance and so on. These complications may end up in long standing chronic osteomyelitis or amputations and so the patients get psychologically upset.^{9, 10} Some chronic diseases that may involve musculo-skeletal system like Tuberculosis affect a patient psychosocially and leads to depression and ultimately have a negative impact.^{11, 12, 13}

In a Meta-Analysis from Hamilton, Muscatelli et al.¹⁴ found depression in orthopedic trauma in 32% men & 42% women. A study in North Carolina by Secrist et al.¹⁵ found moderate depression (PHQ-9 Score ≥ 10) in 10.5% patients with musculoskeletal trauma. From Cleveland, Ohio, USA Weinberg et al.¹⁶ found that the prevalence of depression in orthopedic trauma patients was 22.3% for the time period of 3 years between October 2010 and February 2013. In republic of Korea, Kim et al.¹⁷ compared sedentary and active patients and found increased incidence of depression in sedentary group (0–600 METs-min/week) as compared to ones with increased physical activity (>600 METs-min/week).

KEY WORDS: Depression; Patients; Trauma; Pain; Activity loss; Analgesics.

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REFERENCES

1. Secrist E. Depression screening and behavioral health integration in musculoskeletal trauma care. *J Orthop Trauma* 2022;36: e362-e368.
2. Crichlow RJ. Depression in orthopaedic trauma patients. Prevalence and severity. *J Bone Joint Surg Am* 2006;88:1927-33.
3. Shafiq M. Frequency of nonunion in ipsilateral femur and Tibia fracture treatment. *J Pak Orthop Assoc* 2019;31(2):74-78.

4. Gill JM, Page GG, Sharps P. Experiences of Traumatic Events and Associations with PTSD and Depression Development in Urban Health Care-seeking Women. *J Urban Health* 2008(85) 693–706. <https://doi.org/10.1007/s11524-008-9290-y>
5. Klas B, Kaj B. The mediating effect of depression between exposure to potentially traumatic events and PTSD in news journalists. *European Journal of Psycho-traumatol* 2012, 3: 18388 - <http://dx.doi.org/10.3402/ejpt>.
6. Helmerhost GT, Vranceanu AM. Risk factors for continued use of opioid one to two months after surgery for musculoskeletal trauma. *J Bone Joint Surg Am* 2014;96:495-499.
7. Yannascoli SM, Stwalley D, Saeed MJ. A population based assessment of depression and anxiety in patients with brachial plexus injury. *J Hand Surg AM* 2018;43:1136.
8. Haupt E, Vincet HK, Haris A. Pre injury depression and anxiety in patients with orthopedic trauma and their treatment . *Injury* 2018;49:1079-1084.
9. Seymore RB, Lea D, Walley MK. Prescription reporting with immediate medication utilization mapping, development of an alert to improve narcotic prescribing. *BMC Med Inform Decis Mak.* 2016;16:111.
10. Cancienne JM, Mahon HS, Dempsey IJ. Patient related risk factors for infection following knee arthroscopy. *Knee* 2017;24:594-600.
11. Ugarte-Gil C, Ruiz P, Zamudio C, Canaza L, Otero L, Kruger H, et al. Association of major depressive episode with negative outcomes of tuberculosis treatment. *PLoS One* 2013;8(7):e69514.
12. Koyanagi A, Vancampfort D, Carvalho AF, DeVylder JE, Haro JM, Pizzol D, et al. Depression comorbid with tuberculosis and its impact on health status: cross-sectional analysis of community-based data from 48 low- and middle-income countries. *BMC Med* 2017;15(1):209.
13. Ambaw F, Mayston R, Hanlon C, Medhin G, Alem A. Untreated depression and tuberculosis treatment outcomes, quality of life and disability, Ethiopia. *Bull World Health Organ.* 2018;96(4):243–55.
14. Muscatelli S, Spurr H, O'Hara NN, O'Hara LM, Sprague SA, Slobogean GP, et al. Prevalence of depression and posttraumatic stress disorder after acute orthopedic trauma: a systematic review and meta-analysis. *J Orthop Trauma* 2017 Jan 1;31(1):47-55.
15. Secrist E, Wally MK, Yu Z, Castro M, Seymour RB, Hsu JR, et al. Depression screening and behavioral health integration in musculoskeletal trauma care. *J Orthop Trauma* 2022;36(9): e362-8
16. Weinberg DS, Narayanan AS, Boden KA, Breslin MA, Vallier HA. Psychiatric illness is common among patients with orthopedic polytrauma and is linked with poor outcomes. *JBJS* 2016;98(5):341-8.
17. Kim SY, Park JH, Lee MY, Oh KS, Shin DW, Shin YC. Physical activity and the prevention of depression: A cohort study. *Gen Hosp psychiatry* 2019;60(1): 90-7.

CONFLICT OF INTEREST
Authors declare no conflict of interest.
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AUTHORS' CONTRIBUTION

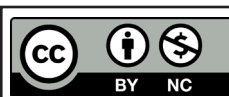
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All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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