Effect of cognitive behavioral therapy on postoperative depression in subjects with flexor tendon repair of the hand

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Dear Editor,

We would like to share our experiences with the Psychiatric Danubina audience that psychological stress and depression are the major health concerns that occur after surgical procedures. Stress a state of emotional strain and pressure that leads to mental discomfort and illnesses such as depression (Ramana et al., 2024). Resolving psychological conflicts requires a substantial role on an individual's mental capacity and failing to do may result in anxiety and depression (Salari et al., 2020). This depressed state of an individual results in decrease in their mental ability and the working ability as well and over time will take up serious problems like insomnia, fear of return to work, fear of job security with psychological discomforts (Jasubhai, 2021). Skilled labourers are often prone to hand injuries like tendon injuries etc., encountered as occupational hazards (Guo et al., 2022). Such individuals undergo a huge phase of mental agony and psychological depression due failure to get back to work at the earliest (Deiner et al., 2021; Sahni & Agius, 2017).

Literatures have supported that Cognitive Behavioral Therapy to be beneficial treatment for addressing psychological issues related to occupation (Tuna & Ermis, 2022).

We presented here a study diagnosed with psychological post-operative depression following tendon repair was treated with CBT and proved to elicit positive impact. This study was approved by the Institutional Ethical committee on human subjects (002/10/2020/IEC/SMCH) and was in accordance with Declaration of Helsinki 1995 (revised in Edinburgh 2000).

The study procedure was explained and consent was obtained from the subject. A 27-year-old male skill labourer working as a grinding machine operator met with an occupational trauma at his workplace and was treated with tendon repair of the dominant hand. He was reported to the Physiotherapy department for hand rehabilitation, during which he complained of fear of recurrence, fear of unemployment due to the trauma, pain, anxiety, depression, mixed emotions and thoughts of the trauma, social withdrawal and neglect, feeling of loneliness for about 2 months following hand rehabilitation. He presents with no history of mental illness or psychosis and had not received any kind of psychological support.

Based on his complaints we consummated a detailed assessment of his mental status. Being the bread-winner of the family, he had been facing financial burden as he has not been to work since the trauma. As the injury occurred during COVID -19 period he also had fear of losing his job that led to feeling of hatred and spent most of the time alone with racing of mixed thought resulted in emotional disturbance and depression. He cannot return to his work and also was reluctant to go out as he finds it difficult to manage his own personal care and activities of daily living. A feel of guilt haunted as he has to rely on his family for support. He has stopped interacting with his family and friends and is often seen alone. He also reported that he couldn't take up other jobs because of injury of the dominant hand.

We assessed his state of depression with Patient Health Questionnaire (PHQ-9) that incorporates DSM-IV diagnostic criteria with major depressive symptoms into a brief self-reported tool which has a good reliability and validity. He had a (PHQ-9) score of 17/27 which was considered as moderately severe depression state. Based on the assessment, rehabilitation plan was incorporated using cognitive behavioral therapy three sessions per week for eight weeks with each session lasting for 45 minutes. The sessions started with the CBT principles, assessment of the bio-psycho-social and psychological awareness and education on stress and depression. Techniques concentrating on coping strategies on pain and depression, cognitive relearning and restructuring, relaxation techniques were imparted and review progress was monitored and reviewing the progress. Self-care coping strategies and reinforcement techniques were emphasised and advised as home care advised. After 8 weeks of intervention there was a dramatic decrease in the PHQ-9 scores as 9/27 which has a good sign of mental state improvement from moderately severe to mild depression state.

The sessions made him to understand the cause of his depressed state by identify the reason and finding solutions thereby enhancing a healthy coping strategy. He developed self- motivation and improved his confidence levels which had a greater influence in maintain good mental state. Self-realization, socialism among his family and the surrounding also improved by the therapy. To conclude, CBT had a positive impact

in the management of post operative depression conditions. I anticipate that this work will greatly imply improvement in knowledge and implementation of CBT as an efficient approach to alleviating mental health problems in subsequent research.

Source of Support: None
Conflict of interest: None to declare
Funding source: None
Authors contribution: Design of the study, Literature search and analyses-M.L & N.K., Interpretation of data, Critical revision of the manuscript-A.A., Final approval of the version-P.S., Agreement to be accountable for all aspects related to the work-A.A

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