

# PSYCHOLOGICAL STATUS AND WORK REHABILITATION OUTCOMES

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## BACKGROUND

- Psychological status needs to be considered when identifying a patient's ability to return to work as depression, pain catastrophizing, and fear-avoidance beliefs have been associated with a decreased ability to return to work.<sup>1-6</sup>
- These psychological characteristics can help inform treatment decisions within the context of a work rehabilitation program.

## OBJECTIVE

- To examine the relationships between psychological characteristics of work rehabilitation patients and program outcomes.

## METHODS

- A retrospective analysis was conducted with Aurora BayCare Medical Center's Workforce Health database, which included patients who participated in a work rehabilitation program between 2017 – 2020.
- Psychological characteristics were assessed utilizing the OSPRO Yellow Flag Assessment Tool (OSPRO-YF), Beck Depression Inventory (BDI), the Patient Health Questionnaire-2 (PHQ-2), Pain Anxiety Symptoms Scale (PASS-20), and the Tampa Scale of Kinesiophobia (TSK).
- Data was analyzed to determine if aspects of mental health were associated with return-to-work outcomes, duration of stay in the program, and type of injury.

## RESULTS

- A total of 355 patients were included in the analysis.
- Results indicated that the PHQ-2 upon admission ( $p = 0.047$ ), TSK ( $p = 0.002$ ), OSPRO-YF ( $p < 0.001$ ), and BDI scores ( $p < 0.001$ ) were significantly lower in those who were able to return to work compared to those who were not working (Figure 1-4).
- All psychological characteristics were negatively associated with the percentage of job demands met upon discharge. There was a positive association between duration of stay and the PASS-20 upon discharge ( $r_s(113) = .316, p = 0.001$ ), TSK ( $r_s(306) = .116, p = 0.043$ ), OSPRO-YF ( $r_s(324) = .110, p = 0.049$ ), and BDI ( $r_s(312) = .150, p = 0.008$ ).

Fig 1. Distribution of PHQ-2 Scores Upon Admission by Outcome

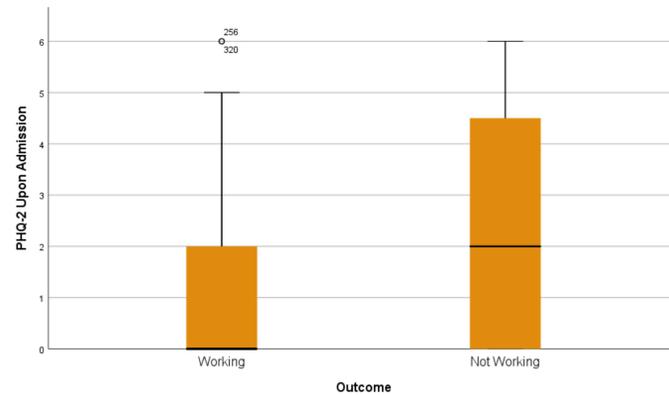


Fig 2. Distribution of TSK Scores by Outcome

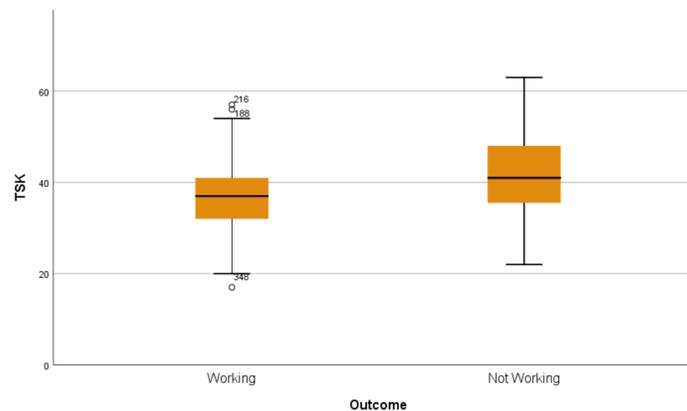


Fig 3. Distribution of OSPRO-YF Scores by Outcome

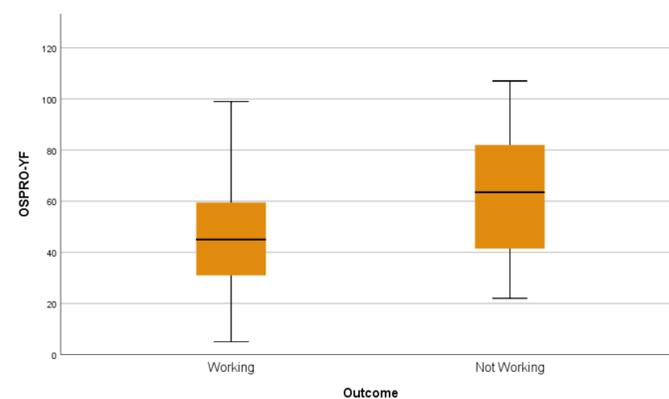
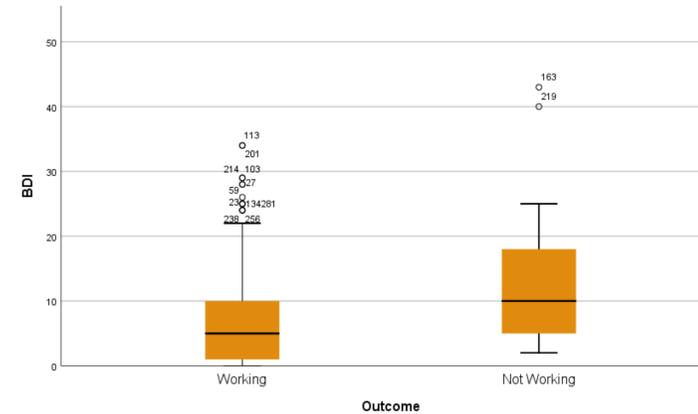
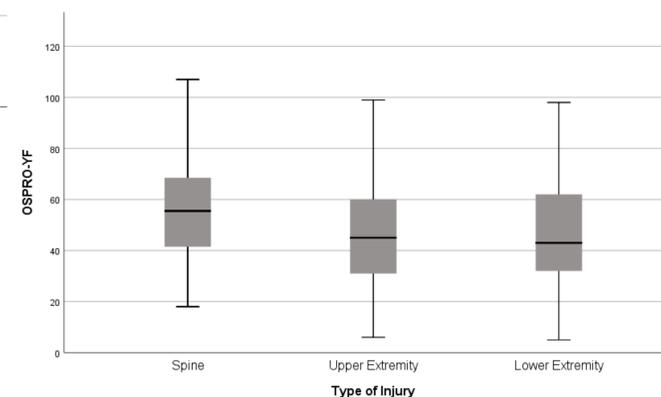


Fig 4. Distribution of BDI Scores by Outcome



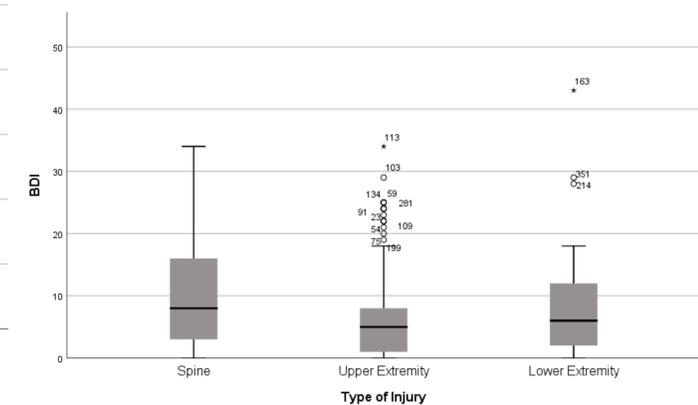
- There was a significant difference in the OSPRO-YF score between the different types of injury,  $H(2) = 12.834, p = 0.002$ , with a mean rank OSPRO-YF score of 200.93 for spine, 152.64 for upper extremity, and 155.01 for lower extremity (Figure 5).

Fig 5. Distribution of OSPRO-YF Scores by Type of Injury



- There was a significant difference in the BDI score between the different types of injury,  $H(2) = 8.819, p = 0.012$ , with a mean rank BDI score of 184.38 for spine, 145.83 for upper extremity, and 164.01 for lower extremity injuries (Figure 6).

Fig 6. Distribution of BDI Scores by Type of Injury



## CONCLUSIONS

- Psychological characteristics were found to be associated with return-to-work outcomes, duration of stay in the program, and type of injury.
- Psychological assessments can help inform treatment decisions in a work rehabilitation program and allow for appropriate referrals to specialists if deemed necessary.

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