

Psychological Status & Work Rehabilitation Outcomes

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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. These psychological characteristics can help inform treatment decisions within the context of a work rehabilitation program. The purpose of this retrospective analysis was to determine if aspects of mental health correlate to return to work outcomes, length of stay within the work rehabilitation program, and the type of injury. 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. The sample included 355 work rehabilitation program participants. All patients who participated in the work rehabilitation program and completed pre- and post- questionnaires were included within the retrospective analysis. 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. The Shapiro-Wilk test was used to check normality for the distribution of the continuous variables, and all were non-normally distributed. Mann-Whitney U tests were used to compare group differences between those who were working and not working for continuous variables. A Chi-Square Test was used to determine group differences between those who were working and not working for categorical variables. A Spearman's rank-order correlation was run to determine the relationship between the specified work rehabilitation program outcomes and psychological characteristics. Kruskal-Wallis H tests were used to determine group differences for continuous variables between the three types of injury. For the PHQ-2 and PASS assessment tools, data was only collected during 2019 and 2020. A p-value of ≤ 0.05 was considered statistically significant. 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. 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 ($r(113) = .316$, $p = 0.001$), TSK ($r(306) = .116$, $p = 0.043$), OSPRO-YF ($r(324) = .110$, $p = 0.049$), and BDI ($r(312) = .150$, $p = 0.008$). 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. 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. 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. By assessing these psychological factors for patients who have a work injury, work rehabilitation programs may be better suited to guide these patients back to work and identify risk factors.

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