Brain Injury and Return to Work: Subjective Ratings of Memory Predict Outcome Failures

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BACKGROUND:
Return-to-Work programs represent a valuable rehabilitation option for brain injured individuals. However, their success rates have averaged between 30 and 40%, making the identification of risk factors for program failure a high priority. Past research indicates that measurements of cognitive abilities in return to work clients, such as attention, organization, planning, and memory, are indicative of program success or failure. Although neuropsychological assessments have proven effective in measuring these features and predicting outcomes, they are often prohibitively costly. The present study examines whether a brief memory and attention scale administered by rehabilitation staff can identify clients who are certain to fail and thus inappropriate for the program.

METHOD:
Retrospective outcome data for 52 clients from a multidisciplinary return to work program were examined. A 16-point rating scale of memory and a 12-point rating scale of attention based on subjective staff judgments during the first week in the program were used as predictors of outcome (i.e., success=any type of employment, failure= no employment).

RESULTS:
Results showed that, consistent with the literature, approximately 35% of clients succeeded. ROC curve analyses showed that memory scale scores provided a more statistically significant prediction of program success or failure than attention scores or a combination of attention and memory scores. Memory scores below 6.2 predicted program failure with a 100% specificity and 59% sensitivity. After eliminating participants who were identified by the memory scale as having a zero chance of succeeding, the success rate increased dramatically from 85.3% to 97.5%. The success rate only increased to 97.5% with an attention score screening criterion of 7.5, and to 97.5% with a combined attention and memory screening.

CONCLUSIONS:
These results support recent endeavors to develop brief assessment tools that can both standardize subjective staff assessments and serve as accurate predictors of program success or failure. The present study instrument offers promise for a priori identification of prospective Return-to-Work Program clients who are certain to fail, either because they have reached the end of possible recovery or because their memory difficulties require a special, more tailored, treatment approach. Return to Work Programs of this type would most likely see increased success rates with the use of simple cognitive screening measures in order to identify populations in need of different types of vocational rehabilitation.

This research was conducted at The Brain Injury Association of Utah, Inc.