

The Personality Assessment Inventory in Hebrew-speaking Individuals with Acquired Brain Injury

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BACKGROUND and OBJECTIVES

- The extent to which self-report personality and psychopathology scales developed for the general population are applicable among individuals with brain damage is a fundamental concern in the provision of accurate neuropsychological assessment and treatment (Ruocco et al., 2007).
- Cognitive, socio-emotional and behavioral changes related to acquired brain damage are likely to affect the reliability, validity and accuracy of such scales (Lezak et al., 2012).
- The current study aimed to examine the **Personality Assessment Inventory** (PAI; Moray, 1991, 2007), a commonly used self-report measure of personality and psychopathology, in Hebrew-speaking individuals with brain damage.

METHOD

- 103 participants (age range 20-61, $M = 35.59$, $SD = 11.7$; 73 men)
- Acquired brain damage from a range of sources – e.g., traumatic injury, stroke, tumor, etc. (years from event range 1-40, $M = 5.77$, $SD = 6.96$)
- Retrospective design
- Comprehensive NP assessment at the Israeli National Institute for the Rehabilitation of the Brain Injured between 2012 and 2015
- Neuropsychological tests:**
 - Intelligence: WAIS-III
 - Memory: WMS, RAVLT
 - Attention: CPT
 - Executive Functions: WCST, HCT
 - Malingering: TOMM, WMT
- Data analysis:**
 - % valid profiles - χ^2 tests
 - Valid vs invalid comparisons - t -tests
 - Pearson correlations



PERSONALITY ASSESSMENT INVENTORY

- 344 items; norms available for English version
- Each item is a statement, rated with a 4-point scale: 1-"Not true at all, False", 2-"Slightly true", 3-"Mainly true", and 4-"Very true"
- 22 scales of four types: validity, clinical, treatment consideration, interpersonal
- Validity Scales:**
 - Inconsistency (ICN): answer similar questions similarly
 - Infrequency (INF): rate bizarre or unusual statements as true
 - Positive Impression (PIM): overly positive self-description
 - Negative Impression (NIM): overly negative self-description
- Clinical Scales:** somatic concerns (SOM), anxiety (ANX); anxiety related disorders (ARD), depression (DEP), mania (MAN), paranoia (PAR), schizophrenia (SCZ), borderline features (BOR), antisocial features (ANT), alcohol problems (ALC), drug problems (DRG).

RESULTS

- Reliability:** Cronbach's α adequate for all scales except DRG.
- Validity:** Greater number of participant profiles invalidated by the Negative and Positive Impression scales than in the norm study.
- Validity and neuropsychological tests:**
 - General intelligence negatively correlated with Inconsistency and Negative Impression; participants with invalid profiles had lower general intelligence scores than those with valid profiles.
 - Relationships between auditory memory subtests (but not working memory) and the Infrequency and Negative Impression scales.
 - Infrequency and the two impression scales positively correlated with malingering tests (TOMM and WMT).
 - Some evidence of relationships between attention and executive functions and PAI validity.
- Clinical scales:** Participants with valid profiles had higher than average scores on all clinical scales except ALC.
- Clinical scales and neuropsychological tests:** Some evidence of relationships between clinical scales and auditory memory subtests.

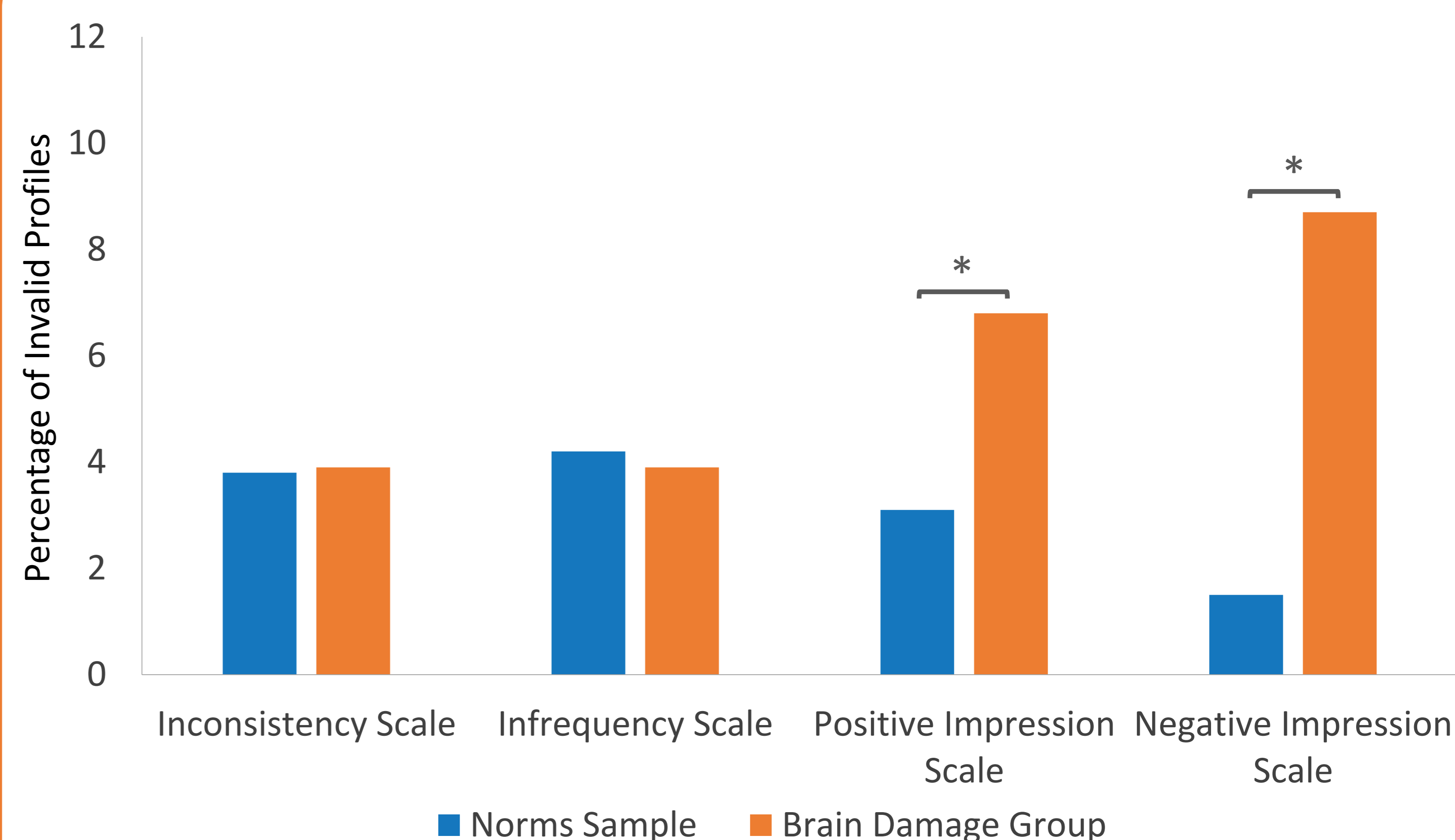


Figure 1. Percentage of profiles invalidated by each of the PAI validity scales in the norm sample and the current study group. * $p < .01$.

CONCLUSIONS

- First study to examine the validity of the Hebrew version of the PAI as a personality and psychopathology measure in individuals with brain damage.
- The reliability of the PAI in this population was adequate and the vast majority of participants were able to complete it with valid profiles.
- However, there are issues to consider when using the PAI to assess individuals with brain damage:
 - May be less valid in cases of: (1) below average intelligence, (2) motivation for negative or positive impression.
 - Elevated averages on almost all clinical scales suggest that new norms are required for populations with brain damage.
- Controlled studies should be conducted to assess relationships between PAI scales and memory and attention functions