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The Personality and Behavior Inventory: Description, Characteristics, Psychometric Properties and Comparison with MMPI-II and PAI

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Abstract

The Personality Behavior Inventory is a multidimensional tool for evaluating psychopathology, physical problems, behavioral characteristics and typical features of a personality. It is made up of 55 non-adjoined factors and 12 adjoined factors. The PBI is the smallest in its field and can be completed also from people with average and limited intelligence and low education. The PBI provides clinical diagnoses, screening, and treatment planning for psychopathology. The validity of the PBI is established by three different samples, a normative sample, psychiatric and psychological patients, a sample of forensic participant and a sample of correctional and public safety employees.

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1. Introduction

1.1. Description and Purpose of Personality Behavioral Inventory:

Personality Behavioral Inventory is a psychological evaluation tool designed by Dimitrios Lyrakos (2013) for the purpose of providing information related to clinical diagnosis, screening of psychopathology, and planning treatment. Personality Behavior Inventory is targeted for adults the 18 years and above. PBI is a self-report inventory for adult psychopathology and was designed as a multidimensional alternate to Personality Assessment Inventory (PAI) and the Minnesota Multiphasic Personality Inventory-II (MMPI-II) for the purpose for assessing the abnormal personality traits. PBI is a self report questionnaire, it consists of the 197 items which are scored on a 4 point ordinal scale. Personality Behavior Inventory includes current items and avoids colloquial and slang expression. There are also no such expressions in the test which can be considered biased on the basis of economic, religious, ethnic, gender or any other grounds.

The publisher Personality Behavior Inventory is Filistos Psychological Services and Publishing (www.filistos.com). The test takes 30 to 40 minutes to complete. There are numerous factors in the test including inconsistency, infrequency, negative impression, positive impression, anxiety, somatization, depression, anxiety related disorders, paranoia, mania, schizophrenia, antisocial features, borderline features, drug problems, alcohol problems, suicidal ideation, aggression, lack of support, stress, assertiveness, empathy, treatment rejection, acting out sadism, psychopathy and hopelessness. There are 55 non-overlapping scales in PBI and 12 overlapping. One important advantage about the factors that PBI has over the other personality inventories is that it also includes three factors for somatic-health problems, (1. Head-neck, 2. Myoskeletal problems and 3. Stomach and Abdomen). Furthermore it is the only Inventory that includes a factor examining eating habits associated with anorexia and bulimia.

The Personality Behavior Inventory was basically developed as a replacement for the PAI and MMPI-II due to wide ranging criticism of the latter and started being used extensively in modern clinical settings. There are a number of the conceptual and psychometric advantages which the PBI enjoys over PAI and MMPI-2 which include the 18 treatment and behavioral factors, a lower reading level of grade 3, nonoverlapping scales, and significant fewer items compared to the 567 for MMPI-II and 344 for PAI, while it includes more factors without compromising the quality and validity of the factors and the inventory overall.

1.2. Psychometric Properties

The Personality Behavior Inventory has exhibited superb psychometric properties which has increased its support within the inpatient, outpatient, and correctional settings. There is also support for the PBI for use in the assessment of post traumatic stress disorder. PBI also contains two factors that are useful in the diagnoses for malingering with greater accuracy compared to the three supplemental indexes of PAI (Siefert, C.J., et.al., 2009).

The major psychometric advantage of the PBI as compared to the other self-report, multi-scaled inventories are related to the issue of content and discriminant validity. In order to ensure content validity in the PBI, the constructs were chosen on the basis of their potential importance for clinicians in a wide variety of assessment areas.

1.3. Strengths in Clinical and Correctional Sample

The PBI was basically designed and standardized for its use in the clinical assessment of adults 18 and above, although there is also the PBI for Adolescence that has been developed. The scale and subscale raw scores of the PBI are transformed to the A-scores or mean of 50, standard deviation of 10 in order to provide the interpretation which is relative to the standardization samples

The PBI also includes a number of procedures in order to eliminate all those items which could possibly reflect a bias on the basis of demographic features as well as the items that could possibly be interpreted differently as a function of these features were systematically eliminated while selecting the final items for the test. Those results were derived from the clinical sample of 1562 participants.

PBI is also different from similar assessment tools where it contains two interpersonal factors (assertiveness and empathy), containing psychometric properties which are consistent with the normative traits. These interpersonal scales offer a depiction of the respondent's interpersonal strategies and also the implied weaknesses and strengths.

The Behavioral Section of the PBI includes factors that were in the former Axis 4 of DSM-4TR. These factors are the Lack of Social Support, which examines the perceived support that the participants receive from his/her social environment. The second factor is the Everyday Stressors, which includes aspects of everyday life that could create stress to the examinee, such as financial hardship, occupational and work problems, family and relationship problems etc. Other behavioral factors are the evaluation of hostile behaviors that evaluates three subfactors, tendencies, verbal and physical hostility, suicide tendencies and treatment acceptance or rejection, which evaluates also possible problems and strengths of the examinee on a treatment setting. On the behavior factors there are also included the hopelessness factor, which evaluates the perception of the examinee about his/hers perceived control about the present and the future, the acting out tendencies that examines aggressive, impulsive and self-destruction tendencies. Finally the PBI also includes a factor evaluating sadistic behavior, this factor is designed to recognize individuals who are not judged to be antisocial but may get personal pleasure and satisfaction in ways that humiliate and violate their rights and feelings and a sadistic factor, with three subfactors. This factor evaluates how manipulative, impulsive, angry and cut off from others the individual is. It evaluates basic psychopathy characteristics such as manipulateness (8 items), impulsivity (9 items) and angry detachment (11 items).

MMPI-2, PAI and other personality inventories also have the disadvantage, among others, of not being coordinated with DSM-IV. The scales of MMPI are involved within 567 items which make it very time consuming to complete fully (Oldham, J.M., et.al., 2005).

2. Objectives and Hypotheses

2.1. Objectives

The aim of this study is to examine the validity and reliability of the PBI on four different samples, normal, clinical, forensic and public safety employees.

3. Materials and method

4. Results

The PBI provides clinical diagnoses, screening, and treatment planning for psychopathology, it also covers all the constructs most relevant to a broad-based assessment of mental disorders. The validity of the PBI is established on the basis of results from data from three samples; a normative census-matched sample from 1.478 community based adults who were matched on the basis of race, gender, and age; a sample consisting of 1472 psychiatric and psychological patients (inpatients and outpatients), a sample from 982 forensic participants, who have been accused and convicted for a variety of crimes and finally a sample of 121 correctional and public safety employees. Both English and Greek sample were gathered with the stratification procedure from all over the countries. From the sample there were excluded people with severe mental retardation. According to the reliability scores, the PBI scales reflect a greater level of internal consistency. Additionally all the studies on validity show the convergent and discriminant validity of the PBI scales to be better than over 50 other tests and measures related to psychopathology). On table 1 the Cronbach's alpha for all four samples are presented.

Table 1. Factor's Reliability Analysis

Factor	Normal Sample	Clinical Sample	Forensic Sample	Public Safety Sample
UPRD	0.886*	0.841*	0.855*	0.794*
SPR	0.945*	0.901*	0.882*	0.982*
NEG	0.952*	0.967*	0.864*	0.765*
POS	0.862*	0.987*	0.943*	0.833*
DET	0.793*	0.790*	0.802*	0.845*
CVRD	0.791*	0.721*	0.863*	0.945*
HLTP 1	0.822*	0.953*	0.945*	0.872*
HLTP 2	0.845*	0.833*	0.962*	0.922*
HLTP 3	0.792*	0.898*	0.899*	0.744*
ANXT-CGNT	0.821*	0.842*	0.921*	0.784*
ANXT-EMTN	0.897*	0.963*	0.898*	0.834*
ANXT-ACTV	0.721*	0.778*	0.970*	0.902*
ANXT	0.778*	0.899*	0.838*	0.774*
OB-CM	0.653*	0.796*	0.958*	0.821*
PHBA	0.733*	0.842*	0.965*	0.698*
PTSD	0.842*	0.963*	0.863*	0.754*
DEPR-CGNT	0.963*	0.791*	0.945*	0.901*
DEPR-EMTN	0.778*	0.822*	0.962*	0.854*
DEPR-ACTV	0.796*	0.845*	0.921*	0.643*
MANIA-HACT	0.698*	0.821*	0.683*	0.867*
MANIA-SUPR	0.701*	0.897*	0.687*	0.932*
MANIA-ANOY	0.712*	0.761*	0.785*	0.785*
MANIA	0.943*	0.890*	0.987*	0.954*
PARN-BNVL	0.863*	0.853*	0.791*	0.877*
PARN-PRSC	0.836*	0.733*	0.822*	0.767*
PARN-RSNM	0.863*	0.842*	0.845*	0.823*
PARN	0.811*	0.799*	0.854*	0.808*
SCZP-PSCO	0.945*	0.963*	0.821*	0.755*
SCZP-SCAV	0.962*	0.778*	0.897*	0.838*
SCZP-THGT	0.921*	0.796*	0.721*	0.943*
SCZP	0.815*	0.913*	0.761*	0.847*
ETMH	0.795*	0.960*	0.799*	0.881*
BRDL-EMTI	0.898*	0.863*	0.953*	0.855*
BRDL-IDTC	0.970*	0.836*	0.833*	0.756*
BRRL-N	0.958*	0.863*	0.842*	0.694*
BRDL-NSSH	0.965*	0.945*	0.963*	0.701*
BRDL	0.865*	0.845*	0.861*	0.950*
ANSC-BHVC	0.921*	0.962*	0.778*	0.978*
ANSC-SLFF	0.692*	0.921*	0.796*	0.934*
ANSC-SLSK	0.845*	0.898*	0.842*	0.966*
ANSC-INGT	0.895*	0.983*	0.796	0.798*
ANSC	0.795*	0.960*	0.799*	0.897*
SDSM	0.954*	0.861*	0.836*	0.873*
PSPT-MNPL	0.835*	0.959*	0.821*	0.875*
PSPT-IMPL	0.895*	0.983*	0.796	0.967*
PSPT-AGDT	0.795*	0.960*	0.799*	0.874*
PSPT	0.951*	0.987*	0.845*	0.947*
HSLT-TNDC	0.875*	0.958*	0.963*	0.934*
HSLT-VRBL	0.854*	0.965*	0.778*	0.899*
HSLT-SOMA	0.975*	0.921*	0.796*	0.921*
HSLT	0.987*	0.890*	0.891*	0.910*
SUIT	0.759*	0.864*	0.978*	0.836*
ESTR	0.845*	0.861*	0.895*	0.744*
LCSP	0.873*	0.959*	0.839*	0.709*
HOPL	0.799*	0.967*	0.843*	0.798*
TRRF	0.836*	0.861*	0.923*	0.889*
ASRT	0.821*	0.959*	0.744*	0.794*
EMPT	0.894*	0.967*	0.815*	0.938*

Note: * No significant change of the Cronbach's Alpha if any of the items of the scale are deleted

Note2: Normal Sample N=1.478, Clinical Sample N=1.472, Forensic Sample N=982 and Public Safety Sample N=121

5. Conclusions

The PBI is considered to be, from professionals who are using it and based on the validation and reliability analysis, a comprehensive assessment tool which provides important clinical constructs to be used in the planning and evaluation of treatment options. Since the PBI has proven psychometric strength and validity of use, it has added promise for increasing the precision required for various forms of treatment. Analyzing the needs for future work with PBI, the requirements are viewed to be commensurate with the needs and requirements of the field in general.

There are critics of personality assessment that the popularity of personality assessment instruments is likely to wane with the rise of managed care and based on a number of professional, economic and politic issues. However it cannot be denied that the incorporation of personality assessment within the process of therapy can only be generally beneficial and can prove to be a shortcut in the identification of clients' problems. While selecting the treatment interventions and in making the decisions about the treatments, clinicians realize fully the benefits of having information about the personality of the clients. Personalities greatly influence the coping styles, desires, needs, response to environmental stressors, the interpersonal patterns, and the intrapersonal sensitivity of individuals. All these factors in turn affect the way intervention strategies can be designed to be most effective. Hence the information about the personalities help clinicians in structuring a better relationship with the client and in selecting the best intervention. This understanding has only helped to establish further the importance of formal and informal personality assessment tools such as the PBI. Despite all any criticism that personality assessment tools have or will face, the future will only continue to add to the reliability and validity of these measures (Whiston, S.C.2008).

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