

Washington State Institute for Criminal Justice:

Research in Brief



Research Brief

Positive Achievement Change Tool (PACT)

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Internal Consistency Reliability

The current study assessed internal consistency reliability of Positive Achievement Change Tool (PACT), the juvenile risk assessment instrument in Washington State. Highly achieved internal consistency reliability indicates that each item score in a scale is highly correlate with the total score of the scale. Consistency between items is important because a scale is constructed with items that measure similar characteristics of an individual. For instance, if the Employment scale is composed of items including history of employment, current interest of employment, and current employment status, the scores of three items are expected to be consistent to measure an individual's characteristics of employment. This study examined all scales in two versions of the PACT, Full assessment and Pre-Screen (a shortened version of Full assessment for screening), by measuring correlations between the different items in each scale.

PACT Scales

The Pre-Screen includes three scales: Criminal History, Social History, and Attitudes/Behaviors. Attitudes/Behaviors scale is not included for analyses because its score is not used for risk level classification. The Full Assessment includes 12 scales: Criminal History, Demographics, Education, Use of Free Time, Employment, Relationships, Family, Alcohol and Drugs, Mental Health, Attitudes/Behaviors, Aggression, and Skills. Demographic scale that has only one item for gender is not assessed since gender break-downs are provided for each analysis.

Method

Assessment data collected from November, 2003 to January, 2013 were utilized. While the PACT consists of two tools, the pre-screen and the full assessment, only the full assessment is used to determine youth needs and protective factors. As such, the full assessment was our specific focus for the current study. A total of 32,699 full assessments were examined with a Cronbach's alpha that is widely used to test the internal consistency. Readers should note, industry standard suggests an alpha coefficient above .70 is considered to have good reliability.

Result

As displayed in Table 1, all but two of the scales in PACT show high internal consistency. Scales possessed alphas below .70, include Criminal History and Mental Health. However, internal consistencies of these scales are less of a concern. Criminal History is composed of various types of offenses and is not used as a need or protective construct. Items in the Mental Health domain were developed to measure mental health symptoms, indicating those individuals in need of further screening and were not intended to construct a criminogenic need scale. These findings indicate that PACT scales reach a high level of internal consistency and are equally reliable for both genders.



Table 1. PACT Full Assessment Internal Consistency Reliability

Full Assessment	Items	Scale Reliability by Cronbach's Alpha		
		Total (N=32,699)	Male (N=24,481)	Female (N=8,218)
Criminal History	10	0.55	0.56	0.51
Education	14	0.81	0.82	0.80
Use of Free time	5	0.73	0.73	0.74
Employment	8	0.75	0.75	0.75
Relationships	8	0.77	0.77	0.77
Family	21	0.82	0.82	0.80
Alcohol and Drugs	9	0.74	0.74	0.73
Mental Health	7	0.58	0.52	0.51
Attitudes/Behaviors	10	0.80	0.80	0.81
Aggression	6	0.75	0.75	0.74
Skills	11	0.92	0.92	0.92

Future Research

The PACT risk assessment was recently updated and recalibrated by WSU researchers with advancement strategies to improve its predictive validity and functionality. The updated PACT has five models to predict five different outcomes: violent felonies, property felonies, drug felonies, general felonies, and any recidivism. Items in each model were selected and weighted to better predict each specific outcome. Additional metrics of reliability and validity of these updated models will be examined.