Research *at a glance*

Validation of the Computerised Mental Health Intake Screening System (CoMHISS) in a Federal Male Offender Population

KEY WORDS: *Mental health screening, screening tools validation, offender mental health*

Why we did this study

The Computerised Mental Health Intake Screening System (CoMHISS) is a set of self-report measures designed to identify offenders at intake who require mental health services. This research was undertaken to determine if CoMHISS is a valid system for identifying those offenders.

What we did

CoMHISS is comprised of the Brief Symptom Inventory (BSI), Depression Hopelessness and Suicide Scale (DHS) and Paulhus Deception Scale (PDS). These measures were administered to 500 male offenders at the Regional Reception Assessment Centre (RRAC) in Pacific region between October 2006 and December 2007. This sample represents 95% of incoming offenders at RRAC over a 14 month period. Case reports based on clinical interviews were coded to determine if recommendations for further mental health services were ultimately made. Results of CoMHISS were compared to the recommendations for further services. A second analysis compared the CoMHISS results to the diagnosis of a mental disorder determined through file review. Tests of validity using two by two tables were conducted producing estimates of sensitivity, specificity and rates of false negatives and false positives.

What we found

Seventy-six percent of the offenders were correctly identified by CoMHISS as requiring service (sensitivity), while 65% were correctly identified as cases not requiring service (specificity). Nine percent of cases required service but were missed by CoMHISS (false negatives). Profiling of these offenders determined that 35% were identified as having cognitive deficits, symptoms CoMHISS does not currently assess. Although the rates of distress measured by CoMHISS were higher for Aboriginal offenders than non Aboriginal offenders, these differences were not statistically significant. Likewise,

the indices of CoMHISS validity for Aboriginal and non Aboriginal offenders did not differ significantly. Assessing the validity of the tool applying the T65 cut off scores and comparing them to a mental health diagnosis produced a sensitivity rate of 83.3% and a specificity rate of 54.8% for an overall accuracy rate of 58.2% (291/500) and a Relative Improvement Over Chance (RIOC) of 66.8%. Forty percent of the total sample (199/500) were false positives, i.e., offenders who did not have a diagnosis but were screened-in by CoMHISS. Ten offenders (17% of those with a diagnosis) were missed using the T65 cut off and only 5 would be missed using the T60 cut off.

What it means

Overall, these results support the use of CoMHISS as a tool that informs the identification of offenders requiring further mental health services. Administrators will need to decide on the optimal cut off scores that provide the desired balance of sensitivity and specificity, given a priority to reduce false negatives. Potential additions to future versions of CoMHISS may improve the validity of the assessment system, particularly if the measures identify offenders with cognitive deficits.

For more information

Stewart, L.A. & Wilton, G. (2011). *Validation of the Computerised Mental Health Intake Screening System (CoMHISS) in a Federal Male Offender Population.* Research Report R 244. Ottawa, ON., Correctional Service of Canada.

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