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INTRODUCTION

Mental illness is a grave issue in prisons, and according to a report published by the Prison Reform Trust for this year's mental health awareness week (PRF, 2017, online), it is worsening. The figures indicate that 49% of women and 23% of men in UK prisons suffer from both anxiety and depression (general population rate: 15%); while 25% of female and 15% of male prisoners exhibit symptoms indicative of psychosis (general population rate: 4%). Even more alarmingly, self-harm in UK prisons reached a record high of 40,161 (up 7,848 from 2015), and the suicide rate has doubled since 2013, with 113 deaths in 2016.

Early detection of at-risk inmates is key to remedying this crisis, but most prisons do not have the resources to devote to large scale in depth psychological assessments requiring a lot of time and specially trained staff. One potential remedy for this are psychometric screening tools, designed to be administered and scored with minimal training and indicate whether the prisoner in question should receive an in-depth psychological evaluation. There have been several attempts to develop such tools, but their effectiveness is uncertain at this time.

Martin et al. (2013) conducted a systematic review comparing the sensitivity and specificity of 22 such mental health screening tools based on 24 studies (conducted in adult jails/prisons with an independent measure of mental illness). The review concluded that 5 of the 6 tools with validation studies were promising and warranted further examination. The test in question are

the Brief Jail Mental Health Screen (BJMHS; Steadman et al., 2005), Correctional Mental Health Screens for Men and Women respectively (CMHS-M & CMHS-W; Ford & Trestman, 2005) the England Mental Health Screen (EMHS; Grubin et al., 2002) and Jail Screening Assessment Tool (JSAT; Nicholls et al., 2004).

This current article aims to provide an overview and compare 3 of these screening tools: the BJMHS, CMHS-M and the EMHS. These tools are similar in that they scored based on the number of affirmative responses to a series of simple yes-no questions, making them very easy for non-specialist staff to administer/score (the JSAT was excluded to its structured interview format). To provide an insightful comparison, said 3 screening tools were administered alongside the GHQ 12 (i.e. as a point of reference) to a sample 74 male Irish prisoners. The 4 tests produced vastly different results, indicating considerably divergence in their sensitivity; which is an important factor for prison staff to consider when choosing one (if any) of these tools.

THE TESTS

GHQ12

The 12-item version of the General Health Questionnaire (Goldberg & Blackwell, 1988) serves as the “gold standard” for preliminary mental health assessment. It has long been in widespread use in many parts of the world and has received significant validation in a variety of settings, including forensic settings (Hassan et al., 2011; Hewitt et al., 2011). For this study, it serves as a point of reference to how sensitive the screening tools are. In our sample, the GHQ12 indicated that **79.7%** of inmates suffered from some mental health problem when using 5/6 scoring.

BJMHS

The BJMHS is an 8 item yes-no answer designed as an improvement over the Referral Decision Scale (Martin et al. (2013) deemed it to be a clear improvement). The first 6 questions of the BJMHS deal with symptoms that may be indicative of depression, bipolar disorder, schizophrenia or other delusional disorders (e.g. “Do you currently feel that other people know your thoughts and can read your mind?”). If the prisoner answers Yes to at least 2 of these 6 questions, further evaluation is recommended. Questions 7-8 deal with current medication for mental health problems and past hospitalization due to mental health problems, and if the prisoner answers Yes to either of these 2 questions, further evaluation is recommended regardless of question 1-6.

In our sample, the BJMHS indicated that **100%** of inmates should receive an in-depth psychological evaluation. Further investigation showed that even if scoring were modified to only consider questions 1-6, or only question 7-8, it still would have indicated that **98.6 %** or **97.3%** to respectively required further evaluation. The BJMHS therefore appears to be far more sensitive than the GHQ 12.

CMHS

The CMHS-M is a 12 item yes-no answer questionnaire similar to the BJMHS, although its scope is slightly wider and the scoring is more straight forward. Its items deal with symptoms that may be indicative of depression, anxiety, Post-Traumatic Stress Disorder, Borderline Personality Disorder, and/or Antisocial Personality disorder. Further evaluation is recommended if the prisoner answers yes to at least 6 of the 12 questions. In this study, one item (#6) was removed due to being deemed unsuitable to the sample.

In our sample, the CMHS-M indicated that **60.80%** should receive an in-depth psychological evaluation. Further investigation showed that lowering the cut-off from 6/7 to 4/5 (as to accommodate the removed item) would increase this to **71.6%**. In either case, the CMHS-M appears to be notably less sensitive than the GHQ12.

EMHS

The EMHS (known as “the Grubin” among prison staff) differs from the BJMHS and CMHS-M in its structure, in that it consists of 4 yes-no questions, 3 of which have follow up questions in case the prisoner answers Yes. Another significant difference is that it deals chiefly with historical information, as opposed to the current state of the inmate. In brief, the EMHS simply ask whether the prisoner has ever seen a psychiatrist outside of prison (follow up questions dealing with the whom, when, where and why), ever received medication for a mental health problem (follow up questions dealing with the what and how much), ever tried to harm himself/herself (follow up questions about the last and the most serious instance), and lastly the presence of any current thoughts about self-harm. If the prisoner answers Yes to any one of the 4 questions, a psychiatric evaluation by a mental health nurse is recommended. The follow-up questions on the form then provide whoever conducts the in-depth evaluation with a more complete clinical picture.

In our sample, the EMHS indicated that **47.3%** of inmates should receive an in-depth psychological evaluation. No further investigations were conducted.

SUMMARY

Even though all 3 tools have received independent validation/support, they produced vastly different results compared to both each other and the GHQ12 when concurrently administered to the same sample. The BJMHS indicated the need for further evaluation in just over 20% more of the inmates than the GHQ12 indicated, while the CMHS-M did the same for just under 20% fewer than the GHQ12. The EMHS, which unlike them largely deals with historical information as opposed to current symptoms, was by far the least sensitive, indicating the need for further evaluation for over 30% fewer inmates than the GHQ12. These results may at first glance indicate that the BJMHS is too sensitive to be useful while the EMHS is not sensitive enough; but the results must be considered in the context of this study's limitations.

The GHQ12 does not represent an exhaustive psychological assessment, meaning it can only provide an approximation of the actual prevalence of mental illness in the sample. As such, one can not conclude for certain which screening tool had the highest specificity. Furthermore, the sample size of $n=74$ is significantly smaller than those used in past validation studies for these tests, some of which got vastly different results. For instance, Cagnon (2009) administered the BJMHS to 1339 prisoners (45% indicated), while Evans et al. (2010) tested both the EMHS and BJMHS on a sample of 530 and found the EMHS to actually be more sensitive (33% indicated) than the BJMHS (23% indicated).

The one conclusion that can safely be drawn from the results of the current study is that mental health screening tools can produce wildly different results for the same sample, and should thus never be seen as interchangeable. Future research on mental health screening tools may benefit from an increased focus of testing/validating tools in relation to each other, rather than in isolation. This avenue could not only aid in the refinement of such tools in the future, but would provide practitioners with valuable information to help them decide what tools to use in a given setting/situation. In this vein, one could for example conduct a replication of the current study

featuring a larger sample, as well as a more comprehensive psychological evaluation to provide a reference for actual mental illness incidence.

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