Commentary

SUBMISSION TO ARCHIVES OF SUICIDE RESEARCH

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Commentary on: Suicide Screening Tools for use with incarcerated offenders……..

*Suicide and self-harm the issue and complexity of screening and assessment within criminal justice populations.*

Suicide and self-harm among prisoners has risen in the UK over the past decade and affects a substantial proportion of prisoners worldwide (Bergen et al, 2010; Witt, 2017). Many of those who self-harm are based in prisons where rates of self-harm and eventual suicide far exceed the rate within the general population (Fazel et al 2011). In an international review of suicide in prisons data from 24 high-income countries in Europe, Australasia and North American showed similar worldwide trends. Elevated risk of suicide amongst prisoners as compared to the general population was found to be five times greater in men and two times greater for women. The study showed a significant association between the prison suicide rate and that of incarceration. (Fazel, Ramesh, Hawton, 2017). Recent evidence suggests that incidence of self-harm in UK prisons in the 12 months to March 2016 have increased by 27% on the previous year. This equates to 405 self-harm incidents compared with 320 incidents per 1,000 prisoners in the previous year (Ministry of Justice, 2016). Self-harm is a major problem in the prison environment because individuals often repeatedly harm themselves, and such repetition has been shown to increase the probable risk of ultimate suicide. Eventual suicides are 5 times higher in male prisoners and 20 times higher in female prisoners than in general population controls (Fazel & Benning, 2009; Fazel, Benning and Danesh, 2005).

Screening for suicide or SH behaviour involves the classification of individuals using a classic two-by-two table identifying those who truly are at risk, *a*/ (*a* /*c*) (i.e., the sensitivity of the instrument), and those who truly are not at risk, *d*/(*b/d*) (i.e., the specificity of the instrument). The evaluation of any screening instrument therefore tends to involve a trade-off between the sensitivity and specificity of the instrument by manipulating the threshold or cut-off score that is used to identify a case. This trade-off is used to maximize the likelihood that those who score positive have a high probability of being at risk, and those who score negative have a low probability of being at risk. Besides sensitivity and specificity, we are also interested in the positive predictive value (PVP; *a*/(*a/b*)) and the negative predictive value (PVN; *d*/(*c/d*)) of the screening tools. The PVP is the proportion of individuals who re identified by the screening tool as being at risk of suicide or SH behaviour who then actually go on to display such behaviour. Conversely, the PVN is the proportion of people identified by the screening tool as not at risk who do not go on to display the behaviour.

Gould and colleagues (2017) report on a systematic review of suicide screening tools for use in incarcerated offenders. They identify eight different tools providing an update to a previous systematic review conducted by Perry and colleagues in 2010 (Perry, Marandos, Coulton, & Johnson, 2010). Nevertheless, missing from the review is one important paper which presents the predictive validity of a new tool referred to as the SCOPE. This tool was designed originally to assess vulnerability to risk of self-harm and suicidal behaviour and not risk *per se.* The published 4 year follow-up study of 465 female offenders (Perry and Gilbody 2009) addresses the issue of predictive validity.

Predictive validity is central to the debate about whether someone will fare better as a result of screening in terms of ultimate outcome (i.e., reduced number of self-harm incidents or attempted suicide) than someone who has not been screened. In the UK prison service currently, there are no such therapeutic opportunities with which to fully explore the utility of screening. Within this debate are those that argue that screening for suicide can be of little utility as it is costly and reliant on the inaccurate belief that risk can be accurately identified and treated (e.g., Towl and Walker, 2015 and Walker and Towl, 2016). The counter position may consider not whether someone is at ‘risk’ or ‘not at risk’ but monitor how risk might change based on an individual’s personal circumstances and combined with their pre-determined vulnerability to known risk factors inform how prevention strategies can be employed.

The Perry and Gilbody paper uses the Youden’s index the paper presents a number of cut-off points. For the SCOPE the optimum cut off score was >=78 which produced a sensitivity of 72.3% and a specificity of 74.0%. Such information could be used to inform a more full risk assessment or provide a benchmark from which policy makers and practitioners could make a series of future decisions.

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