

Prediction of Suicide Using Analytic Algorithms  
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Statement of the Problem

Evaluate the evidence to support claims made about the ability of the Olympic Labs Dynamic Predictive Analytic Algorithms for Stressors & Acute Precipitants of Violence to predict suicide in active duty military personnel.

Summary of the relevant literature

There is no published data to support the use of these algorithms to predict suicide in any population. A component of these algorithms is the Zagar Safety Systems. The only published data that could be found on them was a study on violence risk (Zagar & Grove, 2010), not specifically suicide. The developers also cite research on the MMPI to support their algorithms. While it is true that there is an extensive body of research on the MMPI, none has been published on using the MMPI to predict suicide. There are suicide potential scales derived from this personality measure (Boone, 1994, 1995; Glassmire, Stolber, Green, & Bongar, 2001) and research on using it to identify suicide attempt risk factors (Yousser et al., 2004). Finally, the developers cite their affiliation with Drs. Steiner and Zagar to further support the quality of the algorithms. Steiner's recent work has been on adolescent criminal behavior and psychopathology. Zagar's recent work is also mostly focused on delinquent youth and prediction of violence and aggression. Neither researcher has published on suicide, military, or veterans within the recent past.

Gaps in the literature

We are unable to identify any published studies in support of the proposed algorithms. It is therefore beyond the scope of this paper to suggest gaps in the literature which need to be filled.

Recommendations

The developers of the algorithms are encouraged to conduct the necessary pilot studies to support the feasibility of using this approach to predict suicide in active duty service members. If preliminary data are promising then more extensive trials would need to be conducted in order to demonstrate broad applicability and ultimately the sensitivity, specificity, positive- and negative-predictive power of the algorithms.

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