

Mastering Suicide Assessment: Tools for Insight and Intervention

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Abstract

Suicide is a profound public health issue globally, prompting healthcare systems and accreditation bodies like The Joint Commission (TJC) to emphasize the necessity of suicide risk screening in clinical settings. Healthcare providers and administrators tasked with implementing screening programs must choose from several validated tools, considering factors such as ease of administration, the age groups they are intended for, and the reliability of supporting data. This review aims to summarize the characteristics of concise suicide risk screening tools found in the literature. While these tools can effectively identify potential risks, they may not comprehensively identify all individuals at risk of suicide, highlighting the importance of complementing screening with thorough clinical assessments by trained professionals. Therefore, while brief screening tools provide valuable initial insights, their integration into hospital protocols should be accompanied by awareness of their limitations and the implementation of comprehensive suicide risk management strategies. The 9-item Patient Health Questionnaire (PHQ-9), Ask Suicide-Screening Questions (ASQ), Suicide Behaviors Questionnaire–Revised (SBQ-R) and Columbia-Suicide Severity Rating Scale (C-SSRS triage version) scales are the great tools in examining the suicide risk. The Columbia-Suicide Severity Rating Scale (C-SSRS) has become a widely utilized tool for evaluating suicidal ideation and behavior across diverse populations, including adolescents and adults.

Keywords: *Suicide, Suicide assessment Tools.*

Introduction

Mental well-being forms the cornerstone of overall wellness and effective functioning, encompassing prevention, treatment, and rehabilitation of mental health issues. Depression, a prevalent mental disorder, manifests as prolonged periods of low mood or disinterest in activities, affecting approximately 280 million individuals worldwide [1].

Linked closely to depression, suicide presents a complex and significant public health challenge, particularly impacting young adults aged 15–29, ranking as the fourth leading cause of death. Globally, nearly 800,000 lives are lost to suicide annually,

translating to one death every 40 seconds, with more than 20 attempts for each completed suicide [2].

In emergency department settings, suicidal ideation often surfaces, necessitating nuanced approaches to screening, assessment, and mitigation. While no method guarantees absolute reliability, effective strategies can significantly reduce risk [3]. Suicide represents a pressing and increasingly serious public health issue in India. However, it can be prevented through timely, evidence-based, and often cost-effective interventions. In 2016, the suicide mortality rate per 100,000 population was 16.5, surpassing the global average of 10.5 per 100,000. Particularly vulnerable groups include individuals aged 15-29, the

elderly, and those with special needs. Implementing suicide screening protocols, as outlined in the National Mental Health Policy of India 2014, in conjunction with multidisciplinary collaboration, is crucial [4].

The majority of practitioners are familiar with assessment methods. Training in psychiatry consistently emphasizes the recognition of signs and symptoms that may indicate suicidal tendencies in patients. However, it remains important to regularly review and evaluate changes in standards of care and documentation protocols. Clinicians must continuously refine their understanding of suicide risk factors and evolving standards of care. Addressing access to firearms, for instance, emerges as a critical aspect of assessment due to its association with heightened fatality rates in suicide attempts. Recognizing the complexity of suicidal behaviour, interventions must be tailored to individual circumstances, acknowledging both modifiable and unchangeable risk factors. Although no universal screening tool comprehensively addresses this complexity, the focus remains on sound clinical assessment. This article underscores the understanding of suicide assessment tools accessible to practitioners, which can serve as effective screening measures to precisely identify individuals at risk of suicide attempts.

A literature search was carried out to understand the tools for suicide risk assessment. Search words like “suicidal scales, suicidal tools, Suicide risk assessment scale” were used and search was conducted. The review articles and research articles were considered and thoroughly explored. The

literature search was conducted on electronic database such as Embase and PubMed.

Materials and Methods

A literature search was carried out to identify suicide measures and to include them in this review. The details of these scales were searched on electronic database Embase. Search terms used were “suicide scales”, “suicide scale in depression” and “valid suicide scales”.

Results

Tools for Suicide Risk Assessment

In 2007, The Joint Commission (TJC), issued an alert to medical centers of increased scrutiny on suicide and promulgated the National Patient Safety Goal 15.01.01 for suicide prevention [5, 6]. Effective July 1, 2019, TJC required screening for suicidal ideation with a validated screening tool for all patients being evaluated or treated for behavioral health conditions as their primary problem. TJC did not require screening all patients. TJC added that it was important to assess medical-surgical patients whose prognosis or psychosocial issues put them at risk of suicidal ideation [7]. Meanwhile, the United States Preventive Services Task Force has recommended screening for depression in the adult population, including pregnant and postpartum persons, as well as older adults [8]. The accumulation of all these screening rules has led hospitals to introduce universal screening protocol in regular practice. Table 1 summarizes suicidal assessment tools that are been used by various researchers and clinicians widely.

Table 1. Summary of TJC Approved Suicidal Scales

| Scales | Setting | Items | Sensitivity and Specificity |
|---|--------------------------------------|---|---|
| 9-item Patient Health Questionnaire (PHQ-9) | Primary care; adolescents and adults | 9 questions for presence and duration of suicide ideation | sensitivity, 87.6%; specificity, 66.1%; |

| Scales | Setting | Items | Sensitivity and Specificity |
|--|---|---|--|
| Ask Suicide-Screening Questions (ASQ) | Most clinical areas; all ages | 4 questions developed by the National Institute of Mental Health | Sensitivity, 96.9%; specificity 87.6% |
| Suicide Behaviors Questionnaire–Revised (SBQ-R) | Adolescents and adults | 4 questions including past, present, and anticipated future suicidal thoughts and behaviors | No data on sensitivity or specificity; clinical and nonclinical validation studies |
| Columbia-Suicide Severity Rating Scale (C-SSRS triage version) | Most clinical areas; adults and adolescents | Brief version of C-SSRS; positive responses to first two questions lead to more questions | Sensitivity, 94%–100%; specificity, 99%–99.4% |

Discussion

Many tools have been used to screen suicide risk groups or to predict suicide. Among the variety of depression screening tools, the 9-item Patient Health Questionnaire (PHQ-9), Ask Suicide-Screening Questions (ASQ), Suicide Behaviors Questionnaire–Revised (SBQ-R), and Columbia-Suicide Severity Rating Scale (C-SSRS triage version) scales are on the approval list of TJC.

The Patient Health Questionnaire-9 (PHQ-9) is a validated tool widely used to assess depression severity across various languages and settings. However, its ninth item, which queries about thoughts of death or self-harm in the past two weeks, is not specifically designed for suicide risk assessment. This item's dual focus on passive thoughts of death and active thoughts of self-harm has raised concerns about potentially yielding false-positive results. A recent study by Na et al [9], examined the utility of PHQ-9 item 9 for suicide screening in 841 adult patients primarily diagnosed with mood disorders. Their findings indicated inconsistent performance across different demographic and clinical groups, leading the authors to conclude that item 9 alone is inadequate for robust suicide risk assessment. This aligns with broader research indicating uncertainty regarding the PHQ-9's ability to reliably predict suicide risk. Therefore, while the PHQ-

9 remains valuable for assessing depression severity, clinicians should exercise caution and consider supplemental assessment tools and clinical judgment when evaluating suicide risk in patients [10, 12].

The Ask Suicide-Screening Questions (ASQ) was developed as a validated tool to assess suicide risk in children and young adults presenting to emergency departments (EDs) for medical or surgical reasons. In a study involving 524 patients aged 10 to 21 years across three urban pediatric EDs, researchers evaluated the ASQ's effectiveness. Patients with various chief complaints, including psychiatric and medical/surgical issues, answered an initial set of 17 questions and completed the Suicidal Ideation Questionnaire. The study revealed that a streamlined four-question version of the ASQ accurately identified almost all instances of suicidal ideation. Specifically, this model correctly identified all but one patient who tested positive on the Suicidal Ideation Questionnaire. The ASQ demonstrated a high sensitivity of 96.9% and specificity of 87.6%, highlighting its robust performance in both detecting and ruling out suicide risk in diverse pediatric emergency settings. These results underscore the ASQ's reliability and practicality as a screening tool for identifying individuals at risk of suicide across different medical and psychiatric presentations in emergency care settings [10, 13, 14].

The Suicidal Behaviors Questionnaire-Revised (SBQ-R), developed by Linehan and Nielsen (1981), consists of four questions designed to assess different aspects of suicidal behaviors. Osman et al. (2001) [11] conducted a psychometric evaluation of the SBQ-R across various populations, including college undergraduates, high school students, adolescents, and adults in psychiatric care. They identified specific cutoff scores indicative of high suicidal risk: a score of 7 for high school and undergraduate students, and 8 for psychiatric inpatients. This scale's structured approach allows for comprehensive evaluation of suicidal tendencies, making it valuable in clinical and research settings alike. By probing multiple dimensions of suicidal behavior, the SBQ-R provides a nuanced assessment that helps identify individuals requiring immediate intervention and support. Its reliability across different demographic groups underscores its utility in assessing and mitigating suicide risk effectively [15, 16].

The Columbia-Suicide Severity Rating Scale (C-SSRS) has become a widely utilized tool for evaluating suicidal ideation and behavior across diverse populations, including adolescents and adults. Validated for clinical trials and endorsed by entities like the Department of Defense and The Joint Commission, its structured approach assesses various dimensions of suicidality, from passive thoughts to active ideation, planning, intent, and behaviors. Despite its systematic framework, the C-SSRS does not classify the intent or immediacy of suicidal actions, which are critical factors in determining the level of risk. Concerns have arisen regarding its consistent accuracy in predicting suicidal behavior across different contexts and populations, highlighting the need for careful interpretation and clinical judgment. Nonetheless, its standardized format enables systematic screening and monitoring of suicidal tendencies, making it valuable in both clinical practice and research settings. When

individuals report high-risk responses on the scale, immediate safety precautions are recommended until a comprehensive evaluation by a mental health professional can be conducted. While the C-SSRS provides a structured method for identifying individuals at risk for suicide, its limitations emphasize the importance of supplementing its findings with thorough clinical assessment and personalized interventions to effectively manage and mitigate suicide risk.

Conclusion

Universal suicide screening programs are increasingly adopted by hospitals and healthcare systems due to the profound impact of suicide as a leading cause of death globally and in the United States. The Joint Commission's patient safety goals, effective from July 2019, mandate the use of validated tools for screening all patients primarily treated for behavioral health issues. Factors influencing the choice of screening tool include ease of use, empirical validation in the relevant population, and age-appropriateness. It's essential that screening procedures are systematic and based on tools validated specifically for the population and setting they are used in.

However, all screening scales have inherent limitations in accurately identifying individuals at risk, often validated against other assessments rather than real data on suicidal behavior [17, 18]. Recent studies have shown that both clinical impressions and suicide risk-screening tools may have limited predictive value for outcomes such as psychiatric admissions. Therefore, while screening tools can flag potential risks, they should never replace thorough suicide risk assessments performed by trained clinicians. Ultimately, accurately predicting which patients will attempt or complete suicide remains challenging, emphasizing the ongoing need for careful clinical judgment and

comprehensive assessment protocols in healthcare settings [19, 20, 21].

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Conflict of Interest

There is no conflict of interest.

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