



CORRELATION BETWEEN PSYCHIATRIC RISK FACTORS AND EFFECTIVENESS OF SUICIDE PREVENTION STRATEGIES IN PATIENTS WITH SUICIDAL BEHAVIOUR

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ABSTRACT

Background: Suicide is a major public health issue globally, with numerous contributing factors ranging from mental health conditions to socioeconomic challenges. Effective prevention strategies are essential to reduce suicide rates and improve mental health outcomes.

Objective: To assess the key risk factors associated with suicide and evaluate the effectiveness of various prevention strategies among patients with psychiatric disorders.

Methods: A cross-sectional study was conducted in the Department of Psychiatry, involving 40 patients with a history of suicidal ideation or behaviour. Data were collected through structured interviews, focusing on demographic details, psychiatric history, and risk factors such as previous suicide attempts, family history, chronic illnesses, and socioeconomic status. The effectiveness of suicide prevention strategies, including cognitive-behavioural therapy (CBT), crisis intervention, and community-based programs, was evaluated. Statistical analyses, including correlation and regression, were conducted to identify significant associations between risk factors and suicidal behaviour.

Results: Depression was the most common psychiatric disorder (50%), with other mental health conditions, including bipolar disorder (20%) and schizophrenia (15%), also contributing to suicide risk. Previous suicide attempts were reported by 37.5% of patients. Social factors like unemployment (30%) and social isolation (35%) were significant. Prevention strategies showed high effectiveness, with 80% improvement in patients receiving CBT and 85% improvement in those with access to mental health services.

Conclusion: The study highlights the importance of addressing both psychiatric and social risk factors in suicide prevention. Cognitive-behavioural therapy, crisis intervention, and access to mental health services are critical components of effective prevention strategies. A comprehensive approach that integrates individual and systemic interventions is essential to reduce suicide rates and improve mental health outcomes.

Keywords: Suicide, Risk Factors, Prevention Strategies, Mental Health, Cognitive-Behavioral Therapy (CBT), Crisis Intervention, Social Isolation, Psychiatric Disorders..

Introduction

Suicide is a significant global public health concern, resulting in over 700,000 deaths annually, with many more individuals attempting suicide each year (1). It is the fourth leading cause of death among individuals aged 15-29 years, highlighting the urgent need for effective prevention strategies (2). Suicide is a

multifaceted issue, influenced by a combination of psychological, social, biological, and environmental factors. Understanding these risk factors is crucial for developing comprehensive prevention strategies that can mitigate the risk and reduce suicide rates.

Risk Factors: The risk factors for suicide are diverse, ranging from mental health disorders to socioeconomic challenges. Mental illnesses, particularly depression, bipolar disorder, schizophrenia, and substance abuse disorders, are strongly linked to suicidal behavior (3). According to the World Health Organization, over 90% of individuals who die by suicide have a diagnosable psychiatric condition, with depression being the most common (4). However, it is essential to recognize that not all individuals with mental health conditions engage in suicidal behaviour, indicating the complex interplay of additional factors.

Other significant risk factors include a history of previous suicide attempts, family history of suicide, chronic illness, and exposure to traumatic life events such as abuse, violence, or significant loss (5). Social determinants, including unemployment, financial instability, and social isolation, also contribute to the risk of suicide. Moreover, specific demographic groups, such as the elderly and the LGBTQ+ community, are at a higher risk due to factors like discrimination, stigma, and lack of social support (6).

Prevention Strategies: Prevention strategies for suicide must be multifaceted and involve interventions at individual, community, and policy levels. Early identification and treatment of mental health disorders are critical components of suicide prevention. Ensuring access to mental health services, reducing the stigma surrounding mental illness, and promoting help-seeking behaviour are essential steps in addressing the issue (7). Psychosocial interventions, including cognitive-behavioural therapy and crisis intervention programs, have been shown to be effective in reducing suicidal ideation and behaviour (8).

Public health initiatives aimed at reducing access to means of suicide, such as firearms, toxic substances, and high-risk locations, have also demonstrated success in lowering suicide rates (9). Community-based programs that focus on promoting social connectedness and providing support to vulnerable populations can help reduce feelings of isolation and hopelessness,

which are often precursors to suicide (10). Moreover, national policies that address underlying social determinants, such as poverty reduction and employment support, can contribute to suicide prevention efforts on a broader scale (11).

Despite the existence of effective interventions, there remain challenges in implementing and sustaining comprehensive suicide prevention strategies. Barriers include limited resources, inadequate mental health infrastructure, and cultural stigma associated with seeking help for mental health issues. Collaborative efforts between governments, healthcare providers, and community organizations are needed to ensure that prevention strategies are widely accessible and integrated into public health systems (12).

Aim and objectives:

Aim:

To identify key risk factors associated with suicide and develop effective prevention strategies to reduce suicide rates.

Objectives:

- To analyze and categorize the major risk factors contributing to suicide.
- To evaluate the effectiveness of various suicide prevention strategies at individual, community, and policy levels.

Material and Methods:

This cross-sectional study was conducted in the Department of Psychiatry at a tertiary care hospital. A total of 40 patients were included in the study. The inclusion criteria comprised individuals who had been diagnosed with a psychiatric disorder and had a history of suicidal ideation or behaviour. Exclusion criteria included patients with acute medical conditions that required immediate intervention or those unwilling to participate in the study.

Study Design and Data Collection: Patients were recruited over a period of 6 months. After obtaining informed consent, detailed psychiatric evaluations were conducted using standardized diagnostic tools, including the DSM-5 criteria for psychiatric disorders. Data were collected

through structured interviews, focusing on demographic information, psychiatric history, substance use, social factors, and any previous suicide attempts.

Assessment of Risk Factors: The primary variables assessed were the presence of mental health disorders, history of previous suicide attempts, family history of suicide, chronic medical conditions, substance abuse, and exposure to traumatic life events. Socioeconomic factors, such as unemployment and social isolation, were also evaluated.

Prevention Strategy Analysis: The effectiveness of suicide prevention strategies was assessed through patient self-reports and clinical follow-up. Interventions such as counselling, cognitive-behavioural therapy

(CBT), and crisis intervention were documented. Additionally, the impact of community-based support and access to mental health services on suicide risk reduction was analyzed.

Statistical Analysis: The collected data were analyzed using SPSS software. Descriptive statistics were used to summarize the patient characteristics and risk factors. Correlation and regression analyses were performed to identify associations between risk factors and suicidal behaviour. The effectiveness of different prevention strategies was evaluated based on changes in suicidal ideation and behaviour post-intervention. A p-value of <0.05 was considered statistically significant.

Results:

Table 1: Patient Characteristics and Risk Factors

Variables	Number of Patients (n=40)	Percentage (%)
Age (Mean ± SD)	35.6 ± 10.8 years	-
Gender		
Male	22	55%
Female	18	45%
Psychiatric Disorders		
Depression	20	50%
Bipolar Disorder	8	20%
Schizophrenia	6	15%
Substance Abuse	6	15%
Previous Suicide Attempts	15	37.5%
Family History of Suicide	10	25%
Chronic Medical Conditions	8	20%
Socioeconomic Factors		
Unemployment	12	30%
Social Isolation	14	35%
Exposure to Traumatic Life Events	18	45%

Table 1 provides an overview of the demographic and clinical characteristics of the 40 patients included in the study. The mean age of patients was 35.6 years, with a slight majority being male (55%). The most prevalent psychiatric disorder was depression (50%), followed by bipolar disorder (20%) and

schizophrenia (15%). A significant portion of the patients (37.5%) had a history of previous suicide attempts, and 25% had a family history of suicide. Social factors, such as unemployment (30%) and social isolation (35%), were also common, and 45% of patients had experienced traumatic life events.

Table 2: Effectiveness of Prevention Strategies

Prevention Strategies	Number of Patients (n=40)	Improvement in Suicidal Ideation/Behaviour (%)
Cognitive-Behavioral Therapy (CBT)	20	80%
Crisis Intervention	12	75%
Community-Based Support Programs	8	70%
Access to Mental Health Services	30	85%

Table 2 outlines the effectiveness of various suicide prevention strategies among the patients. Cognitive-behavioral therapy (CBT) showed the highest effectiveness, with 80% of patients reporting improvement in suicidal ideation or behaviour. Crisis intervention programs were effective in 75% of cases, while community-based support programs resulted in a 70% improvement. Access to mental health services had the highest impact, with 85% of patients showing a reduction in suicidal thoughts or behaviours.

Discussion:

This study sought to identify key risk factors associated with suicide and evaluate the effectiveness of various prevention strategies in patients with psychiatric disorders. The findings underscore the multifaceted nature of suicide risk, with a combination of psychiatric, social, and demographic factors contributing to suicidal ideation and behaviour.

Risk Factors: In this study, depression was the most prevalent psychiatric disorder among patients, affecting 50% of the study population. This aligns with existing literature, which consistently identifies depression as a major contributor to suicide risk (3). Other mental health disorders, such as bipolar disorder and schizophrenia, were also significant, with substance abuse being present in 15% of the patients. Previous suicide attempts were a strong predictor of future attempts, which is well-documented in suicide risk research (5).

Social factors, including unemployment and social isolation, were prominent among the patients. Unemployment affected 30% of the study population, while 35% experienced significant social isolation. These findings

highlight the importance of addressing socioeconomic challenges as part of a comprehensive suicide prevention strategy (11). Furthermore, exposure to traumatic life events, which affected 45% of the participants, was another significant risk factor, supporting the notion that trauma plays a critical role in triggering suicidal behaviour (7).

Effectiveness of Prevention Strategies: The study evaluated the impact of several suicide prevention strategies, with cognitive-behavioral therapy (CBT) showing the most promise. Among the patients who received CBT, 80% demonstrated an improvement in suicidal ideation and behavior. This is consistent with other research that has shown CBT to be one of the most effective interventions for reducing suicide risk (8).

Crisis intervention was another effective strategy, with 75% of patients benefiting from immediate support during acute suicidal episodes. Community-based support programs also proved beneficial, especially for individuals experiencing social isolation, with 70% of patients showing improvement. Access to mental health services emerged as a critical factor, with 85% of those who had access reporting reduced suicidal thoughts. This emphasizes the need for improved access to mental health care as a cornerstone of suicide prevention efforts (12).

Limitations: The study had some limitations, including a small sample size and the fact that it was conducted in a single tertiary care hospital. This limits the generalizability of the findings to broader populations. Moreover, the study did not account for long-term follow-up, so the sustained effectiveness of the prevention strategies remains uncertain.

Future Directions: Further research with larger, more diverse populations is needed to validate these findings and explore additional risk factors. Longitudinal studies would help determine the long-term impact of prevention strategies and identify any gaps in care that need to be addressed.

Conclusion:

This study emphasizes the complex and multifactorial nature of suicide risk, highlighting the critical role of psychiatric disorders, social determinants, and traumatic life events in contributing to suicidal behaviour. Depression was the most prevalent mental health condition associated with suicide risk, while previous suicide attempts and social isolation were also significant contributors.

The findings suggest that effective suicide prevention strategies, such as cognitive-behavioral therapy (CBT), crisis intervention, and community-based support programs, can significantly reduce suicidal ideation and behaviour in vulnerable patients. Additionally, ensuring access to mental health services is crucial in mitigating suicide risk.

Overall, a multifaceted approach that addresses both individual and systemic risk factors, coupled with evidence-based interventions, is essential for reducing suicide rates. Future efforts should focus on expanding access to mental health care and integrating comprehensive prevention strategies into public health systems to save lives and reduce the global burden of suicide.

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