SAS Journal of Medicine
Abbreviated Key Title: SAS J Med
ISSN 2454-5112
Journal homepage: https://saspublishers.com

OPEN ACCESS

N/A

Suicide in a Psychiatric Hospital Setting: Review of the Literature

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DOI: https://doi.org/10.36347/sasjm.2025.v11i11.009 | **Received:** 22.09.2025 | **Accepted:** 08.11.2025 | **Published:** 20.11.2025

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Abstract **Review Article**

Suicide in a psychiatric hospital setting, although rare, is a tragic event for the patient, his family and caregivers. This literature review summarizes epidemiological data, risk factors, frequent circumstances and prevention strategies. Research shows that suicides often occur during runaways, unsupervised leave, or in the first few hours after admission. Prevention is based on continuous risk assessment, environmental safety and increased vigilance during transitions of care.

Keywords: Suicide, psychiatric hospitalization, prevention, fugue, risk factors.

INTRODUCTION

Suicides in hospitals are the fear of health professionals, in whom these events often generate a feeling of failure and guilt. It remains one of the leading causes of death in hospitalized psychiatric populations. Despite a therapeutic and safe framework, hospitalized patients remain at increased risk, especially during transition phases or during runaways. Understanding the circumstances and risk factors is essential to develop effective prevention strategies, adapted to the institutional context. This review aims to synthesize recent knowledge on suicides occurring in psychiatric hospitalization.

METHODS

- **Type of review:** narrative review with elements of systematic review.
- **Bases consulted:** PubMed, PsycINFO, Embase.
- **Research period:** 2000–2025.
- **Inclusion criteria:** original studies on hospitalized adults, data on suicide or suicide attempt, publications in English or French.
- **Exclusion criteria:** studies on non-hospitalized populations, reviews without original data, isolated cases without hospital context.

RESULTS

1. Epidemiology

Several studies have looked at the incidence of suicide in psychiatric hospitals:

- In two cohorts, one in the United States, the other in Sweden Gupta M, Esang M, Moll J *et al.,* 2022 and Lindberg, M., Sunnqvist, C., Wangel, A. *et al.,* 2024 find an estimated suicide rate between 0.05% and 0.3%, a rate significantly higher than in the general population (multiplied by 50 to 72). [1,2]
- HAS – National report, 2022 ≈ 250 suicides / 100,000 psychiatric admissions, mainly hanging.
- Thesis EPSM Bailleul, Retrospective study (1980–2016) published in 2018: 14 suicides, by hanging, defenestration
- Post-exit meta-analysis (Turner *et al.*,) Maximum risk 1st week after discharge (≈ 2000–3000 / 100 000 pers-year)
- Monastir study (Tunisia) Case series (10 years): 5 hospital suicides Hanging (3), defenestration, choking
- NHS Mental Health Safety Review (UK) 100+ hospitals, by falls, hanging
- Northern European studies (Denmark / Sweden): Hospital incidence < 0.1%, but risk ×100–200 vs general population, mainly by hanging

2. Risk factors

Author / Year	Type of study	Identified risk factors
Ballard *et al.*, 2008	Literature Review	Severe disorders, suicidal history
HAS – National Report, 2022	National Report	ATCD TS, acute phases, transition periods
Thesis EPSM Bailleul, 2018	Retrospective study (1980–2016)	90% ATCD TS, social isolation, depressive episodes
Post-exit Meta-analysis (Turner *et al.*,)	Meta-analysis	Clinical instability, unprepared discharge
Monastir Study (Tunisia) (10 years)	Case Series (10 years)	Psychotic disorders, severe depression
NHS Mental Health Safety Review	National Audit	Severe disorders + rapid fluctuations in mood
Northern European Studies (Denmark / Sweden)	National Cohorts	ATCD TS, mood disorders, schizophrenia

DISCUSSION

Suicide in a psychiatric hospital setting is a painful clinical paradox: it occurs in a space that, by definition, should offer enhanced protection to high-risk patients. However, studies show that despite safe environments and trained teams, the risk remains significant, and sometimes higher than in other care settings; estimates are around 150–250 suicides per 100,000 admissions, which is well above the suicide rate in the general population. This underscores the extent to which hospitalization concentrates patients in times of acute vulnerability.

The majority of suicides occur: During runaways or unsupervised leave. In the first days of admission or immediately after partial clinical improvement. The most common methods: hanging, strangulation, drug ingestion.

Risk factors can be articulated at several levels:

- Patient: history of suicide attempts, severe mood disorders, acute psychosis, impulsivity, substance addictions.
- Care: involuntary admission, critical transitions, inadequate assessment of suicidal risk, underestimation of suicidal ideation after clinical improvement.
- Environment: access to anchor points, poorly monitored areas, dangerous objects within reach, poorly monitored architectural configuration.

To prevent intra-hospital suicide effective measures identified in the literature; architectural security (windows, bathrooms, removal of anchor points, monitoring protocols adapted to the level of risk, rigorous exit planning with involvement of relatives when possible. No single measure eliminates risk, but the cumulative effect of well-coordinated strategies significantly reduces the likelihood of doing so.

Clinicians know this well: despite the expertise, the individual prediction of the passage to the act remains limited. Several studies emphasize that clinical judgment alone is not enough; it must be supplemented by frequent reassessments, close collaboration between caregivers.

Finally, every hospital suicide is a trauma for the teams. The studies highlight the need for psychological support from professionals and the collective analysis of the event, are essential elements to prevent repetition but also to maintain the mental health of caregivers.

CONCLUSION

Suicide in psychiatric hospitals is a complex phenomenon, influenced by clinical, environmental and organizational factors. Effective prevention requires a multidimensional approach: clinical vigilance, environmental security and institutional support for staff. Future research should focus on personalized prevention strategies and evaluating their effectiveness in reducing hospitalized suicides.

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