



# Suicidal Ideation Research in Hospital Settings: A Systematic Review

## Investigación sobre la ideación suicida en entornos hospitalarios: una revisión sistemática

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### Resumen

La ideación y la conducta suicida constituyen importantes preocupaciones de salud pública y representan predictores clave del suicidio, especialmente en entornos hospitalarios psiquiátricos y durante el período posterior al alta. La evidencia indica consistentemente que el riesgo de suicidio permanece elevado después del alta de la hospitalización psiquiátrica, especialmente entre adolescentes y adultos jóvenes. El objetivo de esta revisión sistemática fue sintetizar la evidencia empírica sobre la ideación suicida en contextos hospitalarios, con especial atención a los predictores, las trayectorias y los resultados posthospitalarios. Se realizó una búsqueda sistemática en la base de datos Web of Science con las palabras clave «ideación suicida» y «hospitalización», filtrando artículos de acceso abierto publicados en inglés durante las últimas dos décadas. De un conjunto inicial de 718 registros, 50 estudios cumplieron los criterios de inclusión basados en la relevancia, el rigor metodológico y el enfoque directo en la ideación suicida o la conducta suicida en contextos hospitalarios o posteriores al alta. Los resultados indican que la ideación suicida tras la hospitalización sigue trayectorias longitudinales heterogéneas, donde los patrones crónicos y persistentes confieren el mayor riesgo de intentos de suicidio y rehospitalización. Los factores de riesgo clave incluyen la desesperanza, la desregulación emocional, los intentos de suicidio previos, la exposición a traumas y los entornos psicosociales adversos, mientras que la conexión familiar y la continuidad de la atención emergen como factores protectores. El análisis subraya que la hospitalización psiquiátrica puede estabilizar temporalmente las crisis agudas, a la vez que traslada la vulnerabilidad a la fase posterior al alta, destacando el alta como un punto crítico de intervención. En conclusión, el riesgo de suicidio tras la hospitalización psiquiátrica es un proceso dinámico y multidimensional. Una prevención eficaz requiere estrategias sostenidas y con capacidad de respuesta temporal que se extiendan más allá de la hospitalización e integren enfoques clínicos, psicosociales y digitales emergentes.

**Palabras claves:** Adolescentes, factores de riesgo, hospitalización psiquiátrica, ideación suicida, prevención del suicidio.

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## Abstract

Suicidal ideation and suicidal behaviour constitute major public health concerns and represent key predictors of suicide, particularly in psychiatric hospital settings and during the post-discharge period. Evidence consistently indicates that suicide risk remains elevated after discharge from psychiatric hospitalisation, especially among adolescents and young adults. The objective of this systematic review was to synthesize empirical evidence on suicidal ideation in hospital contexts, with a specific focus on predictors, trajectories, and post-hospitalisation outcomes. A systematic search was conducted using the Web of Science database with the keywords “suicidal ideation” and “hospitalisation,” applying filters for open-access articles published in English over the last two decades. From an initial pool of 718 records, 50 studies met inclusion criteria based on relevance, methodological rigor, and direct focus on suicidal ideation or suicidal behaviour in inpatient or post-discharge contexts. The results indicate that suicidal ideation following hospitalisation follows heterogeneous longitudinal trajectories, with chronic and persistent patterns conferring the highest risk for suicide attempts and rehospitalisation. Key risk factors include hopelessness, emotional dysregulation, prior suicide attempts, trauma exposure, and adverse psychosocial environments, whereas family connectedness and continuity of care emerge as protective factors. The discussion underscores that psychiatric hospitalisation may temporarily stabilize acute crises while shifting vulnerability to the post-discharge phase, highlighting discharge as a critical intervention point. In conclusion, suicide risk after psychiatric hospitalisation is a dynamic and multidimensional process. Effective prevention requires sustained and temporally responsive strategies that extend beyond hospitalisation and integrate clinical, psychosocial, and emerging digital approaches.

**Keywords:** Adolescents, risk factors, psychiatric hospitalization, suicidal ideation, suicide prevention.

## Introduction

Suicidal ideation (SI) has been a very frequent problem due to this kind of thoughts between people in all ages, as it is also linked to a suicidal behaviour, but it seems to have a major frequency in teenagers, even after discharge from psychiatric hospitalisation (Wolff et al., 2018). Furthermore, it is necessary to talk about a suicidal behaviour (SB) too, which “is a major health problem worldwide. It is usually considered to emerge from a burden of mental illness, and therefore, managing SB is an important responsibility for mental health workers. SB has been an established predictor for completed suicide” (Hayashi et al., 2012, p. 2), which needs to be understood on

what thoughts and emotions appear during a suicidal behaviour and a suicidal attempt for a short-term prediction within the days or weeks after it, according to Coppersmith et al. (2023). To comprehend more about this idea, Czyz et al. (2015) relate how severe suicidal ideations and suicide attempts have mainly increased due to some factors, in which psychiatric hospitalisation, the families, amongst many others, are extended into young adulthood. Plus, he says that suicide attempts are associated to many other factors in inpatients’ lives, such as psychiatric hospitalisations, persisting psychological impairment and distress factors, that may come to young adulthood ones as well, which is a very important



area to focus on. Nevertheless, it can impact on any person who has been experiencing certain situations that come down on these ideations, which will be included in this research later. It is relevant to treat these thoughts as they pop up as a risky sign for their lives, due to the huge number of people that end their lives, and those who have been trying several times to do so, which enlightens Joyce et al.'s (2019) research about the importance of identifying predictors for (re)hospitalisation to incorporate this risk into care planning. Additionally, have we ever thought about the risk that this represents before, during and after a period of hospitalisation? Even though there are lots of treatments for this, the risk of rehospitalisation has been increasing, as much as Primack et al. (2023) highlight that characterising features of SI and suicide attempts (SA) in certain groups is important to prevent and intervene their subfactors, like duration, severity, and uncontrollability. According to Qin & Nordentoft (2005) "patients with mental disorders are at an increased risk of suicide, and that the risk is particularly high soon after discharge from psychiatric care" (p. 427). So many people may go through this real struggle after psychiatric hospitalisation, as well as during it, having in mind that every person has a different process to manage their circumstances besides medical, psychiatric or psychological treatment. This depends on how the magnitude of the symptoms are affecting the integrity of themselves, which is treated as such, with different types of methods to cope with the varying emergent and historical conditions for every individual.

"The challenge of identifying suicide risk in adolescents, and particularly among high-risk subgroups such as adolescent inpatients" (Czyz et al., 2015, p. 2), points

to question what is happening inside people's minds, but it also can be complemented to Jacobucci et al.'s (2024, p. 20) research study, where they detected some elements that may lead up to hospitalisation, such as the social use of the cellphone before a suicidal crisis as a technique to seek social support to prevent their escalating suicidal risk, which may contribute to acute interpersonal stressors instead, even way further than what is evident at the moment of discharging from the hospitalisation period, and it also suddenly pretends to makes us understand the whole context that surrounds a person, probably as meaningful as any diagnosis to the integration of a holistic view. Plus, this can increase the breaking point of a decision to commit a suicidal action, as well as not at all, but this last one will not be considered in this case. Thus the context of a person who has not been hospitalised before is relevant to let us focus on what is the first step to map out the whole process that has been taking place on this particular subject, for it is the main matter to understand the rest of people's suicidal ideations as inpatients and after this period, too.

On the other hand, there is something very important happening as well with the inpatients that are rehospitalised for some reason, like Cepeda et. al (2020) say: "The risk of rehospitalisation for any reason within 12 months was 25.90% in CCAE and 28.59% in Optum. It was 33.80% in the Medicare database and 41.14% the Medicaid population" (p. 3).

They emphasise a little more on inpatients hospitalised for suicidal ideation and suicidal behaviours due to depression symptoms, as they also find out that there is an important point in any kind of patients that are more likely to be rehospitalised in a period time of one year,



as it was told above. As another general view to this situation, Czyz et al. (2016) spot that hospitalisation can sometimes unintentionally worsen feelings of hopelessness, especially if outpatient treatments have failed, or it may lead individuals to see themselves as chronically ill or lacking the ability to effectively manage and benefit from treatment. Cepeda et al. (2020) also find that: “around 50% of hospitalisations with suicidal ideation or suicidal behaviours occurred during the first 3 months after the initial hospitalisation” (p. 4), which is linked to the frequency of this problematic situation.

Then, the next question may come to this: why is this happening over and over again to people who apparently had successful outcomes after hospitalisation? what is intervening in this process to make them repeat this cycle? These may be some of many other questions that arise from reading the previous context. To go deeper into this whole complex, it is necessary to classify the reasons and their risk to occur once again, confirming concern of the prevalence of suicide in the United States from 1999 to 2016, that is approximated to 47.000 deaths per year, such as Doshi et al. (2020) discover that despite of lots of screening questions applicated and methods used to anticipate the risk of a suicidal act, this usually ends up to be done by the person, due to the critical factors that indicate this risk is high.

In addition to this, thanks to the expanded use of Electronic Health Records (EHR), a huge amount of data is recovered by Doshi in large healthcare systems, which allowed him to confirm that after a follow-up of the patients registered in this system, the predictive accuracy achieved higher sensitivity than clinical assessments. It can also be supported other predictive models

used with veterans, compared to traditional clinical assessment techniques in patients with higher-risk, that is more likely to end up in completing a lethal suicidal act. This can also be linked to a major group of people with suicidal behaviours: young inpatients hospitalised for affective disorders, whereas people with one or even two other kind of psychiatric disorders are frequently noted as predictors for a suicidal behaviour, whose identification of risk factors is imperative to address them correctly, and on time (Prinstein, 2008).

Indeed, King et al. (2014) categorise them in those who are “multiple attempters” and those who once reported a suicidal ideation, moreover, these ones who constantly reported suicidal thoughts, may lead to the presence of an additional vulnerability as it might be seen, added to the habituation to pain and fear, such like an “acquired capacity” for coping with risky behaviours in their lives. Furthermore, what was said previously can be reinforced with these words: “only emotion dysregulation significantly differentiated those with Chronic from Declining SI. Specifically, those who were more dismissive of emotional responses and had limited access to emotion regulation strategies were more likely to report Chronic SI” (Wolff et al., 2018, p. 9) as these responses are important to learn for adolescents’ strategies to face issues, while there is another significant factor in any person’s life before, during and after hospitalisation events that mainstream a human: the social sphere.

It depends on how it helps to cope with a disease as it may not help to do such, in which case it might become a “social rejection” as another risk factor that groups up stressors and increased engagement in suicide attempts, due to



some life events that make a person more prone to killing himself (Cheek et al., 2020). Furthermore, other social factors such as effective communication, established rules, and families' understanding of youth perspectives play a crucial role in preventing psychiatric hospitalisations. This is particularly relevant for hospitalisations related to digital media use, where risks can be mitigated by temporarily removing or restricting access to devices, according to Nesi et al. (2022). To support this, Shafi et al. (2021) mention that social media use might be linked to self-harming behaviours and could serve as an overlooked indicator of risk, and they also suggest this social media use factor should be included in psychiatric evaluations, due to its significance to the assessments.

In addition to the whole previous idea about social factors, Czyz et al. (2012) fuse social connectedness to post-hospitalisation suicidal ideation, describing that adolescents who felt a stronger connection with their family during the three months following hospitalisation reported experiencing milder depressive symptoms and less severe suicidal ideation throughout the entire year after their suicidal crisis. Nevertheless, to extend this social rejection context specially in adolescents, Marraccini et al. (2022) recognise that social relationships at school are another part of this whole complex, because of the specific kind of social behaviours that may approach to the person, whether they are positive and growing treatments or negative ones, including bullying experiences that are also linked to suicidal ideation in those who are going through a troublesome psychosocial climate at school associated to their partners.

To step outside from this, there is another matter about post-hospitalisation, that Gaudiano et al. (2008) discover, where greater depression severity at hospital discharge predicted the development of suicidal ideation during post-hospital treatment as well as the length of hospital stay was similar between groups with suicidal ideation, but overall, stays in psychiatric hospitals have significantly decreased over recent decades, in some way due managed care restrictions. One research to explore deeper this idea may be Czyz et al.'s (2015) paper, wherein they find out that a potential pathway for ongoing suicidal thoughts could be cognitive vulnerability marked by hopelessness.

Notably, a high degree of hopelessness was the sole factor distinguishing the chronic ideation group that they were studying from the elevated, but rapidly declining group, suggesting that these negative expectations might be sustaining suicidal thoughts. Additionally, Ryan et al. (2020) also refer more specifically to those traumatic episodes in childhood that could have led to any kind of impulsiveness, aggressiveness and weak interpersonal attachments that may be associated with challenges in controlling the impulse to attempt suicide during periods of distress, despite of the possible presence of suicidal thoughts as well, linked to emotional neglect and probably associating the sense of hopelessness previously mentioned.

These harmful behaviours (impulsivity and self-reported aggressiveness) work as predictors for SI and SB in adulthood rather than those who have positive coping beliefs, just like Goldston et al. (2016) report. As in post-hospitalisation, Army et al. (2020) point out that it is remarkably important to go further than how inpatients are generally feeling, because of all the

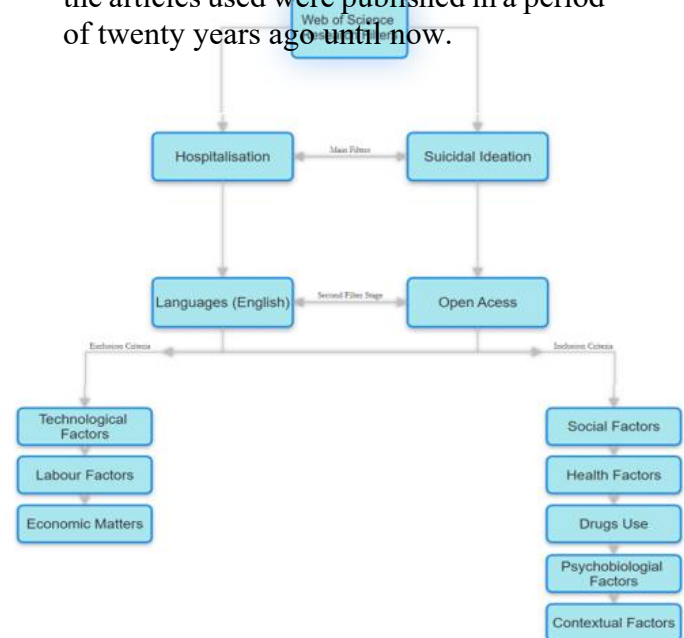


variants that make them flow emotionally day after day. Consequently, it is very meaningful to understand individually how they are feeling, which may face suicidal ideation endorsement, overall, it is necessary to track these feelings, too, in order to take advantage of some similar patterns between suicidal ideation intensity and self-harming behaviours and prevent the increase of suicide risks, such as Peters et al. (2019) say, as it is not only for those who are already inpatients or those discharged from hospitalisation, but apparently also for those who have not been admitted to psychiatric hospitalisation ever, mainly to prevent this happening, like Riblet et al. (2019) report in their pilot study.

## Methods

As a result of these filters, only a hundred seventy-nine (179) articles were selected due to the proximity and precision of their topics, and later they were redacted to fifty articles, in order to get a better reference for this research, according to the main two filters. Inclusion criteria were those articles with direct linkage to the two main search filters, instead of including all the data compiled before, because this includes a more accurate result to what this research has been pointing to. On the other hand, exclusion criteria were those articles that, although they were shown as a result in the first big data compilation, were not as precise as the fifty articles did, due to their focus on merely technological, labour, and economic matters linked to the main two search filters as a secondary topic. Nevertheless, those that were significant to be added through these filters were those associated to social, health, drugs use, psychobiological, and contextual factors, which leads up to the final filter of 50 main articles from all this number of discarded antecedents.

Consequently, as told before, these fifty articles fit better to what the main two filters from the beginning try to describe, as these had an open access for the public, in addition to the precise information used for the development of this compilation (Figure 1). This number of articles used here are research articles, research studies, research papers, case reports, pilot studies, academic manuscripts, a systematic review and meta-analysis, a study protocol, and a paper about a short communication, which are significant to this research for the topics and perspectives that each paper has in it. Plus, the articles used were published in a period of twenty years ago until now.



Note. Own elaboration.

## Results

This research paper compiled a sample of seven hundred eighteen (718) articles as a result for the search filter “Suicidal ideation” AND “Hospitalisation”, that were reduced to three hundred fifty-three (353) articles with the filters: Open Access



and Languages (English) after that. All this data was compiled uniquely from the Web of Science, and some of them were downloaded from the National Institutes of Health (NIH) website and others from different official websites, despite some articles from the Web of Science with Open Access filter were not available to download, which succeeded on the NIH website and the other official sources. It should be noted that the download source of these documents does not affect their content, as they were also taken from open access sources, with their respective citation.

Also, there is no risk of bias in the research, because the inclusion criteria were chosen in accordance with the research, from its topics, titles and contents, so the discernment between the other articles was rigorous and equitable at the time of application. This is important, because at the time of collecting the background, preference should not be given in the choice of articles as it represents a risk in the reliability of the information provided and its relevance to the research topic.

The number of quantitative backgrounds taken for this research was 24, while the qualitative ones were only 1. The great majority of these articles coincide in that they were published in countries such as the United States and England, except for some others belonging to European countries. On the other hand, the reliability indexes of all quantitative articles were analysed, which mainly coincided in having a high reliability percentage (between 90% and 95%), while in two of these 24 investigations the authors recommended further exploration in the correlation between the variables and their reliability index, because their investigations analysed the variables and

explained them as part of the phenomenon on which they focused. Plus, the great majority of the results of these quantitative investigations were processed by Latent Class Growth Models (LCGM), which allowed them to be classified as investigations with high levels of reliability. Consequently, the only qualitative research taken from the background (Jacobucci et al., 2024)) was also analysed from the techniques or forms that gave viability to the reliability indices by its very nature of analysis of the variables, which allowed the understanding of the predictability of suicidal behaviour through the integral vision of these techniques, which were: *a)* ecological momentary assessment (EMA), *b)* screenshots (screenomics), *c)* optical character recognition (OCR), *d)* analysis of specific dictionaries referring to the language used by the participants, *e)* monitoring of risk factors and social content, *f)* qualitative and quantitative analysis of individual experiences and variables, *g)* suicide risk assessments through the EMA.

Another relevant aspect of the background information collection process used in this research is the keywords, which are consistent across several variables within the information provided in the texts, including the following words: suicidal ideation, depression, suicidal behaviour, hopelessness, (re)hospitalisation, suicide, adolescents, patients, trauma, emotional dysregulation, and disorder. As a result, the circularity of these variables within the main research categories directly anchors them to each other as part of hospital contexts, where most of the population, especially those previously mentioned in this research, are most susceptible to relapsing in a hospitalisation context, regardless of the many reasons. Furthermore, it is important to keep in



mind that: “inpatient hospitalisation is considered essential in the clinical management of acutely suicidal adolescents, and recent estimates indicate that inpatient admission rates for youths have been increasing” (Czyz et al., 2016, p. 2), which means that the variables “hospitalisation” and “suicidal ideation” are more related than it seems, since, in itself, there is a high probability of being a variable inherent to the reattempts, those who, since previous attempts, or even if the present one has been their only suicidal behaviour, show a high frequency of relapse from the data presented in the background verified within the framework of the *statu quo* of the patients plus the disorders that led them to a hospitalisation, which is supported by what Cepeda et al. (2020, p. 4) mentioned in their research: “rehospitalisation for suicidal ideation or suicide attempt within a year ranges from 7.96% to 11.24%”, and they added to this: “the risk of rehospitalisation with a diagnosis of suicidal ideation or suicide attempt is highest during the first month after the initial hospitalisation and almost 50% of rehospitalisations for suicidal ideation or suicidal behaviour occurred during the first 3 months”, which is one of the findings within their research, so it is supposedly that the previous were not random variables that cause a relapse, but, on the contrary, they are important predictive indicators of future events correlated with the deep state of mental health of the patient, moreover with the context that cross-cuts it. Notwithstanding, like Qin & Nordentoft said, it is consecutively considered that:

The severity of psychiatric illness plays an important role on risk of suicide, especially during the acute illness. Reasons for the highest risk at a time of apparent recovery may include that recovery may be incomplete and mental

state may deteriorate, that the abrupt withdrawal of inpatient care may enhance vulnerability, that discharge may reexpose patients to the stresses that precipitated admission, and that on leaving the hospital they may have easier access to the means of suicide. (p. 431)

In reference to this, the immense risk of mental disorders within the contexts of (re)hospitalisation is not mentioned, but rather it goes beyond this latent possibility and focuses on the apparent recovery within the period of vulnerability in which their health may improve or may actually decrease, allowing new means for suicide after a hospital discharge directly associated with the context in which these people were living, since these are factors that most likely have not changed and will affect their mental health again, unleashing a high probability of readmission to the hospitalisation service as a consequence of the stressful variables of their environment. Finally, a feasible milestone within the approach in this case may focus on the appropriate treatment provided and an in-depth professional evaluation of the evolution of the patient's diagnosis throughout their hospital stay, anticipating possible risks in the peaks of relapse in the weeks after discharge.

In addition to the previously described findings, the reviewed studies consistently indicate that post-hospitalisation suicidal ideation follows heterogeneous longitudinal trajectories rather than a uniform course. Several investigations identified distinct profiles, including chronic, persistent suicidal ideation, elevated ideation with gradual decline, and transient ideation, with the chronic trajectory showing the highest risk for subsequent suicide attempts and rehospitalisation (Czyz et al., 2013; Wolff et al., 2017; Peters et al., 2018). These



trajectories were significantly associated with higher levels of hopelessness, emotional dysregulation, and limited access to emotion regulation strategies, suggesting that the persistence of suicidal ideation over time constitutes a critical clinical marker beyond its presence at discharge (Gaudiano et al., 2008; Goldston et al., 2016).

Another salient result concerns the predictive role of psychosocial and relational factors during the post-discharge period. Multiple studies emphasize that stronger perceived social connectedness, particularly within the family system, is associated with lower severity and reduced persistence of suicidal ideation during the year following psychiatric hospitalisation (Czyz et al., 2012; Joyce et al., 2019). In contrast, experiences of social rejection, interpersonal stressors, and adverse school environments were consistently linked to higher levels of suicidal ideation and increased likelihood of rehospitalisation among adolescents (Cheek et al., 2019; Marraccini et al., 2022). These findings highlight that social and relational variables operate as significant modulators of suicide risk, interacting dynamically with individual psychopathology in hospital and post-hospital contexts.

On the other hand, the reviewed literature underscores the value of emerging methodological approaches for detecting short-term fluctuations in suicide risk following hospitalisation. Studies employing ecological momentary assessment and passive digital data collection demonstrated enhanced sensitivity in identifying proximal risk states that precede suicidal crises, often outperforming traditional retrospective clinical assessments (Armey et al., 2020; Jacobucci et al., 2024). Similarly, large-scale analyses using electronic health

records revealed improved predictive accuracy for post-hospitalisation suicide risk when compared to standard clinical evaluations, particularly within high-risk populations (Doshi et al., 2020; Primack et al., 2023). These findings support the integration of continuous, real-time monitoring tools as complementary strategies in post-discharge risk assessment and suicide prevention efforts.

## **Discussion**

The findings of this systematic review reinforce the growing body of evidence indicating that psychiatric hospitalisation does not constitute the end of suicide risk, but rather marks the beginning of a period of heightened and dynamic vulnerability. The post-discharge phase has consistently been identified as a critical window in which suicide risk remains elevated, particularly during the first days and weeks following hospital discharge (Qin & Nordentoft, 2005; Madsen et al., 2021; Ødegård et al., 2026; Chung et al., 2017). Contemporary cohort and case-crossover studies suggest that discharge itself may function as a short-term causal risk factor for suicide, with a pronounced increase in risk during the first week after leaving inpatient care (Ødegård et al., 2026). This observation aligns with epidemiological evidence demonstrating that abrupt transitions from structured inpatient environments to less controlled community settings may reintroduce psychosocial stressors, increase access to means, and expose discontinuities in care (Qin & Nordentoft, 2005; Chung et al., 2017). Large-scale population studies further demonstrate that timely outpatient follow-up, particularly within the first seven days post-discharge, is associated with a reduction in subsequent suicide risk, highlighting the importance of continuity



and temporal precision in post-hospital care (Che et al., 2023; Olfson et al., 2016).

The present review also corroborates prior findings indicating that rehospitalisation for suicidal ideation or suicidal behavior is highly concentrated in the early months following discharge, with nearly half of rehospitalisations occurring within the first three months (Cepeda et al., 2020). This pattern has been replicated across different diagnostic groups and healthcare systems, suggesting that early relapse is not an isolated phenomenon but a structural feature of post-discharge trajectories (Thompson et al., 2025; Walter et al., 2019). Meta-analytic evidence confirms that the risk of suicide and rehospitalisation remains substantially elevated for at least one year after discharge, although the magnitude of risk declines over time (Tai et al., 2025; Chung et al., 2017). These findings collectively suggest that hospitalisation may temporarily stabilize acute crises while displacing risk into the post-discharge period, underscoring the need to conceptualize discharge as a clinical intervention point rather than a terminal outcome of care.

Consistent with this temporal framing, the reviewed studies demonstrate that suicidal ideation following hospitalisation does not follow a uniform course but instead manifests in heterogeneous longitudinal trajectories. Prior research has identified distinct profiles, including chronic, persistent ideation; elevated ideation with gradual decline; and transient ideation that resolves shortly after discharge (Czyz et al., 2013; Wolff et al., 2017; Peters et al., 2018; Prinstein et al., 2008). Chronic trajectories, in particular, are associated with the highest risk of subsequent suicide attempts and rehospitalisation, suggesting that persistence and stability of ideation

may be more clinically informative than point-in-time severity assessments. These findings are further supported by evidence indicating that hopelessness, emotional dysregulation, and limited access to emotion regulation strategies play a central role in differentiating chronic from declining trajectories (Gaudiano et al., 2008; Goldston et al., 2016). Recent studies employing intensive longitudinal methods have extended this perspective by demonstrating that variability, lability, and rapid escalation of suicidal ideation in daily life may constitute distinct risk phenotypes that are not captured by traditional retrospective assessments (Kivelä et al., 2025; Kleiman et al., 2017).

The role of psychosocial and relational factors emerges as a central theme across the reviewed literature. Stronger perceived social connectedness, particularly within the family system, has been consistently associated with lower severity and persistence of suicidal ideation during the post-hospitalisation period (Czyz et al., 2012; Joyce et al., 2019). In contrast, experiences of social rejection, interpersonal conflict, and adverse school environments have been linked to increased ideation severity and higher likelihood of rehospitalisation, especially among adolescents (Cheek et al., 2019; Marraccini et al., 2022). These findings are reinforced by contemporary models emphasizing suicide as an outcome of dynamic interactions between individual vulnerability and social context, rather than as a solely intrapsychic phenomenon (Turecki et al., 2019; Franklin et al., 2017). Implementation studies further suggest that post-discharge suicide prevention requires coordinated, multicomponent approaches that extend beyond symptom management to address relational continuity, caregiver involvement, and



system-level support (Fu et al., 2025; Walter et al., 2019).

In parallel, the increasing incorporation of digital technologies into suicide research has introduced new methodological avenues for understanding short-term risk fluctuations following hospitalisation. Studies using ecological momentary assessment and passive smartphone-based data collection have demonstrated enhanced sensitivity in detecting proximal risk states that often precede suicidal crises (Armev et al., 2020; Sedano-Capdevila et al., 2021). Recent work indicates that passively collected digital markers, such as text-based language features, screen use patterns, and geolocation data, may provide clinically meaningful signals of imminent risk when integrated with direct clinical assessment (Ammerman et al., 2025; Auerbach et al., 2025; Coppersmith et al., 2023). Large-scale analyses leveraging electronic health records further support the added predictive value of data-driven approaches, particularly in high-risk populations such as veterans and individuals with prior suicide attempts (Doshi et al., 2020; Primack et al., 2023). Nevertheless, systematic reviews caution that while predictive performance is promising, heterogeneity in study design, limited external validity, and unresolved ethical concerns remain significant barriers to routine clinical implementation (Melia et al., 2025; Belsher et al., 2019).

The convergence of these findings points to the necessity of rethinking suicide prevention in post-hospital contexts as a process-oriented endeavor that prioritizes continuity, timing, and individualized risk monitoring. Evidence increasingly supports the effectiveness of brief, structured interventions implemented at or shortly after discharge, such as the Safety Planning Intervention and caring contacts,

in reducing suicidal behavior and improving patient engagement (Marshall et al., 2022; Holman et al., 2022; Riblet et al., 2019; Schalley et al., 2024). Qualitative syntheses further highlight that the perceived usefulness of these interventions depends on collaborative formulation, personalization, and integration into broader systems of care (O'Connor et al., 2024). Importantly, randomized and implementation-focused studies emphasize that the effectiveness of such interventions is contingent on early activation and sustained follow-up rather than isolated delivery at discharge (Barrigón et al., 2025; Thomas et al., 2024; Olfson et al., 2016).

Taken together, the evidence reviewed suggests that suicide risk following psychiatric hospitalisation is best understood as a dynamic, multidimensional process shaped by temporal trajectories of ideation, psychosocial mechanisms, and system-level factors governing continuity of care. While emerging digital and data-driven methods offer promising tools for enhancing risk detection and monitoring, their integration into clinical practice must be guided by rigorous validation, ethical oversight, and attention to equity and accessibility (Knorr et al., 2025; Turecki et al., 2019). Future research should prioritize longitudinal designs capable of capturing rapid fluctuations in risk, as well as intervention studies that explicitly target the post-discharge transition as a critical locus for suicide prevention.

## **Conclusions**

This systematic review highlights that suicide risk following psychiatric hospitalisation should be understood not as a residual or diminishing phenomenon, but as a dynamic process that intensifies



during the post-discharge transition. Hospitalisation appears to provide short-term containment of acute crises while simultaneously relocating vulnerability to the period immediately following discharge, where discontinuities in care, re-exposure to psychosocial stressors, and fluctuating internal states converge. The heterogeneity of post-hospitalisation trajectories of suicidal ideation underscores the inadequacy of static risk assessments and reinforces the need for models that account for persistence, variability, and temporal dynamics of suicidal thoughts. These findings support a conceptual shift in which discharge is reframed as a critical clinical juncture requiring active, sustained, and individualized intervention rather than as the endpoint of treatment.

Moreover, the evidence synthesized in this review emphasizes that post-hospital suicide prevention must be approached as a multidimensional endeavor integrating clinical, psychosocial, and systemic components. Relational factors, continuity of care, and timely follow-up emerge as central protective elements, while emerging digital and intensive longitudinal methodologies offer promising avenues for enhancing sensitivity to short-term risk fluctuations.

Nevertheless, the translation of these tools into routine clinical practice demands careful consideration of ethical standards, clinical responsibility, and equity in access. Future research should prioritize longitudinal and implementation-focused designs that address the post-discharge period as a distinct phase of care, with the ultimate goal of reducing preventable suicide risk through coordinated, person-centered, and temporally responsive prevention strategies.

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