Patient Suicide and Self-Harm Prevention Strategies in Hospitals

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ABSTRACT

Inpatient suicide and self-harm attempts are two sentinel events hospitals seek to avoid. Nonetheless, each year, patients are able to commit suicide or self-harm within hospitals. While several national entities have provided guidance to reduce the risk of self-harm among inpatients, no global standard exists to address these preventable events. The objectives of this paper are to evaluate current standards of care used around the world to prevent suicide and self-harm attempts and to make practical recommendations for hospital staff to implement for a safer hospital environment. Staff training, proper environment modification, patient assessment, and other protocols can help ensure patients are cared for in a healthy and low-risk way. Therefore, hospitals should seek to have specific guidelines in place to properly care for patients who may express suicide ideation or the desire to self-harm. These guidelines should include patient assessment and follow-up measures to ensure patient care is continuous throughout hospitalizations. A true understanding of the effectiveness of programs and interventions is difficult to achieve without data and surveillance measures that provide an accurate estimate of suicide and self-harm attempts among inpatients around the world. Future research should address way to provide more accurate surveillance of these adverse events and measure the population-level effects of interventions that may benefit patients.

INTRODUCTION

Patient self-harm and suicide rates during inpatient hospital stays have remained a concern for hospitals around the world, although accurate estimates are difficult to determine (Williams, Schmaltz, Castro, & Baker, 2018). The Joint Commission, a leader in hospital standardization and guidance in the United States, considers patient suicide to be a “sentinel event,” meaning prevention should be considered in terms of patient safety not as part of a natural disease course ("Comprehensive Accreditation Manual for Hospitals," 2017). This distinction magnifies the need for hospital staff preparation to prevent these events through patient monitoring, environmental modification, and other specific actions to help improve outcomes (Williams et al., 2018). Clinical practice guidelines are developed based on research and provide guidance based on most current research for treatment providers to use with patients experiencing or at risk of disease or self-harm and suicide (Wilhelm, Korczak, Tietze, & Reddy, 2017).

Self-harm rates are often difficult to calculate and are underreported internationally (Reuter Morthorst, Soegaard, Nordentoft, & Erlangsen, 2016). Data from the United States shows that non-fatal self-harm events have increased dramatically in recent years (Matthay, Farkas, Skeem, & Ahern, 2018). A meta-analysis in the United Kingdom estimated an average of 20 per 100,000 patients per month completed self-harm in the hospital (James, Stewart, & Bowers, 2012). Patients who have self-harmed in the past are likely to repeat or to attempt suicide within five years (Carroll, Metcalfe, & Gunnell, 2014). Common means of self-harm in inpatient settings include burning, re-opening wounds, cutting, and strangulation or self-ligature (James et al., 2012).

The annual rate of inpatient suicide attempts is difficult to determine, especially since not all States require the reporting of suicide-related hospital deaths (Williams et al., 2018) and not all hospitals accurately report suicide deaths (Walsh, Sara, Ryan, & Large, 2015). A recent meta-analysis estimated the international inpatient suicide rate to be between 577 and 715 per 100,000 population, with the United States having the highest rate and Nordic countries having the lowest estimates (Walsh et al., 2015). A recent study based on data from The Joint Commission Sentinel Events Database and National Violent Death Reporting Systems data estimates the suicide rate to be between 48.5 and 64.9 per 100,000 each year, which challenged a previously accepted estimate of 1,500 incidents of suicide in hospitals annually in the United States (Williams et al., 2018). Compared to the general United States population, military veterans have experienced higher rates of inpatient suicide attempts (Watts, Shiner, Young-Xu, & Mills, 2016). Worldwide, suicide attempts in hospital settings have increased in recent years (Walsh et al., 2015). Understanding the cause of these inpatient suicide attempts and implementing protocols to help protect patients are necessary to reduce the number of these attempts.

Suicide attempts generally occur as a result of stressors from a variety of factors and the degree of suicidality can change from day to day (Betz et al., 2016). The high rates of suicide attempts in hospital settings may be related to new policies around the world requiring hospitalization when one exhibits suicide ideation (Wang & Colucci, 2017). Self-ligature was the most commonly identified method among inpatient suicide deaths in the United States, while jumping from considerable heights and drug overdose have also been reported (Williams et al., 2018). Each patient may experience a different stressors and circumstances that culminate in their suicide ideation.

Rapid yet effective screenings can help identify patients who are at risk of suicide and allow for fast treatment (Koweszko et al., 2016). Suicide prevention programs should exist in all hospitals and may also be useful for individuals hospitalized with general self-harm behaviors (Hawton et al., 2015), since self-harm is often linked with future suicide attempts (Carroll et al., 2014). Suicide and self-harm prevention programs may require educating healthcare staff and managing the hospital environment to help reduce risk (Betz et al., 2016; Navin, Kuppili, Menon, & Kattimani, 2019) or may consist of constant observation of patients considered at higher risk (Russ, 2016). This understanding of suicide risk is imperative to proper care and treatment during the hospital stay.

Knowing patient self-harm and suicide attempts are prevalent yet preventable, it is important for hospitals and other inpatient facilities to prepare to prevent and handle these situations. Therefore, the purpose of this review is to identify what suicide and self-harm prevention strategies have been effectively utilized during inpatient hospital stays around the world. These successful interventions will be evaluated for effectiveness and recommendations will be identified based on existing research to help hospitals mitigate the risk of suicide and self-harm among inpatients.

LITERATURE REVIEW

There are several risk factors associated with patient self-harm and suicide during an inpatient hospital stay. These risk factors include specific socio-demographic variables that increase risk as well as during which part of the stay are the incidents most likely to occur. Understanding these risk factors can help clinicians and hospital administrators better address this issue.

RISK FACTORS FOR SELF-HARM

Self-Harm may occur as a result of perceptions of unbearable situations, a wish to die, feelings of loss of control, or a desire to show others the level of hopelessness being experienced. Underlying trauma, rejection, loneliness, and psychiatric issues may contribute to these factors (de Beurs, Vancayseele, van Borkulo, Portzky, & van Heeringen, 2018). Additionally, living in a community with high levels of violence may increase the risk of non-fatal self-harm among members of the community, even though suicide attempts are unchanged based on this metric (Matthay et al., 2018).

Several studies from around the world have provided insight regarding risk factors for self-harm among different populations. A longitudinal study conducted in the United Kingdom showed White individuals and females were most likely to experience self-harm. However, males reported more life problems, such as relationship issues, than females. Employment and alcohol use also had significant roles in self-harm attempts (Townsend et al., 2016). Patients discharged from the emergency department following a self-harm incident may not have a mental health diagnosis or receive help in a follow-up, which can lead to future self-harm or suicide attempts (Horrocks, Price, House, & Owens, 2003) Self-harm is a risk factor for eventual suicide, as most people with suicide attempts also have previous self-harm attempts (Hawton et al., 2015). Consequently, the two conditions may have similar risk factors.

RISK FACTORS FOR SUICIDE

Numerous studies have sought to understand risk factors for suicide in the general population as well as in inpatient settings. Understanding suicide risk of patient populations is necessary for providing adequate care and mitigating the risk of suicide during inpatient stays or after being discharged (Avci, Selcuk, & Dogan, 2017). However, understanding this risk is challenging due to the diverse mix of at-risk individuals (Wilhelm et al., 2017). Diagnosis of suicidality is not enough to accurately manage and treat patients. Rather, it is important to understand patient history and current situations that may lead to a suicide attempt (Wilhelm et al., 2017).

Self-harm attempts may be able to be used to model suicide risk. One study showed that the risk of suicide for individuals who had a self-harm incident in the past year was 49 times higher than among those who had no prior self-harm attempts. This risk is especially high within the first 6 months following a self-harm attempt (Hawton et al.,

2015). Thus, knowing the self-harm history of patients may help identify those who are at a higher risk of suicide.

Some sociodemographic factors have been linked to heightened suicide risk (Navin et al., 2019), including elderly populations who are hospitalized (Avci et al., 2017). As the older adult population increases, suicide incidence within this population are expected to rise, especially among those with significant stressors (Conwell, Van Orden, & Caine, 2011). The World Health Organization (WHO) recognizes that people over 70 years of age are at the highest risk of suicide, whereas individuals under the age of 15 are at the lowest risk of suicidal ideation (World Health Organization, 2014).

One Turkish study showed that among elderly patients in hospitalized settings, those at highest risk for suicide lived alone, were more likely to drink alcohol, had a history of psychiatric hospitalization, were being treated for cancer, and had weak religious beliefs (Avci et al., 2017). A study in Korea compared suicidal individuals who used community mental health services and hospitalized patients seeking mental health treatment. In the study, suicidal patients who were hospitalized were reportedly experiencing more stress and had more severe family mental health histories and prior suicidal behaviors, which may have put them at higher risk for suicide (Park et al., 2017). Additionally, this study showed that those who were hospitalized had significantly higher rates of current suicide risk than the community at large and were more likely to have recurrent major depressive episodes (Park et al., 2017).

When assessing risk for inpatient suicide exclusively, more specific risk factors have been determined. Previous suicide attempts, self-harm, family history, and severe mental disorders are risk factors for inpatient suicide (Navin et al., 2019). In the United States, there is a higher incidence of suicide attempts in psychiatric hospitals compared to general or other inpatient facilities (Williams et al., 2018). Lack of staff and resources in comparison to the number of mental health patients may also increase suicide risk (Navin et al., 2019). These risk factors help determine interventions that may be beneficial.

Specific timeframes in which suicide risk is heightened include shortly after a patient is admitted to the hospital (Navin et al., 2019). Walsh et al. found that inpatient suicide rates were inversely related to how long the patient stayed in the hospital (Walsh et al., 2015). Furthermore, within seven days after discharge, patients recently released from mental health hospital care are at increased risk of suicide (Chung et al., 2017; Riblet et al., 2017). Knowledge of these specific risk factors allow physicians and hospital staff to be on alert during times when suicide risk is highest during a stay or immediately after discharge.

In addition to these risk factors, the WHO has recognized several protective factors related to suicide, such as emotional and social well-being (World Health Organization, 2014). This may include physical activity and adequate sleep as well as close, healthy relationships. Religious beliefs or having faith in something may be protective, but may

also lead to negative stigma related to suicide and mental health awareness (World Health Organization, 2014). Promoting these protective factors may reduce suicide.

UNITED STATES HOSPITALS, PROGRAMS AND GUIDANCE

To mitigate the risk of self-harm and suicide attempts in inpatient settings, organizations and hospitals in the United States have provided regulations and programs that offers insight into methods to prevent these sentinel events from occurring. Prevention in clinical and community settings for those at risk is a major priority among many private, medical, and other stakeholders, including the federal government (Claassen et al., 2014). Understanding previously implemented practices and programs illuminates best practices for reducing suicide risk.

Recognizing the importance of suicide and self-harm prevention in hospital settings, The Joint Commission established suicide prevention as a National Patient Safety Goal in 2007 (Williams et al., 2018). Revised in recent years, the National Patient Safety Goal for Suicide includes ensuring psychiatric areas of hospitals are ligature resistant, all other areas of the hospital are screened for possible hazards and extra precautions are followed when a high-risk patient is admitted (The Joint Commission, 2020). Validated suicide assessment tools should be used to screen all patients admitted with a mental health condition (The Joint Commission, 2020). Once the level of risk for a patient is determined, the hospital should create an individualized plan to help reduce the suicide risk and document all activities and progress (The Joint Commission, 2020). While not mentioned by itself, self-harm prevention in hospital settings is addressed as a means to reduce suicide risk (The Joint Commission, 2020).

One prevention technique that has been utilized is constant observation of the patient by hospital staff. However, methodological constraints do not allow for proper research to understand the benefits and risks of this method (Russ, 2016). Thus, the use of constant observation has had conflicting literature because there are concerns from ethical and effectiveness perspectives. Constant observation of certain patients – such as those most at risk for suicide or self-harm – may be effective (Russ, 2016); however, other techniques should also be considered.

Staff training is an important aspect of suicide prevention in inpatient settings, yet as of 2017, only ten States required suicide prevention trainings in hospitals, while training was simply encouraged in others. Additionally, these trainings were mostly required for nurses and direct-care staff, not other members of the hospital team (Graves, Mackelprang, Van Natta, & Holliday, 2018). The gatekeeper training approach had successful short- and long-term success to improve self-efficacy and help-giving behaviors in clinical and non-clinical individuals who completed the Question, Persuade, and Refer Program (Litteken & Sale, 2018). The Suicidal Intervention Response Inventory can be utilized to assess effectiveness of intervention and ensure individuals are prepared to respond to suicidal patients (Neimeyer & MacInnes, 1981; Neimeyer & Pfeiffer, 1994).

A few studies found that emergency departments in hospitals around the United States have a significant role in preventing suicide and self-harm. Emergency departments may be important in diagnosing suicide risk through expanded screenings and increased provider knowledge (Betz et al., 2016). Also, they may have a critical role in preventing future suicide attempts after treatment for a self-harm episode that does not receive in-hospital care (Olfson, Marcus, & Bridge, 2012). The Safety-Planning Intervention consists of providing patients with tools and strategies to help cope should suicide ideation become overbearing. This intervention can be utilized for patients in the emergency department or for inpatient stays (Stanley & Brown, 2012). The Safety-Planning Intervention can be standardized for each hospital, yet personalized to help mitigate suicide risk as doctors understand more about warning signs, external support, and coping strategies the patient has used in the past or has available at present (Stanley & Brown, 2012).

The Department of Veterans Affairs is a part of as necessary after the United States government tasked with caring for military veterans through various programs and a vast health care system. Veterans Affairs identified the need to improve access to care after non-fatal self-harm (Haney et al., 2012). Researchers developed the Mental Health Environment of Care Checklist to help mitigate and reduce risk among inpatients. The checklist was developed after researchers identified the objects most associated with risk in patient rooms to help prepare staff for prevention, as well as areas where self-harm or suicide most commonly occurs (Mills et al., 2010). Many serious and moderately hazardous items identified and were found in bathrooms, bedrooms, and hallway, including artwork, silverware, drawers, plastic in trash cans, cleaning products, and more (Mills et al., 2010). Since the checklist was developed, additional research has shown how common hospital room items could be used for self-harm and suicide attempts (Mills, King, Watts, & Hemphill, 2013).

Multidisciplinary approaches for suicide prevention have also been addressed in the United States. The Therapeutic risk management of a suicidal patient integrates behavioral health and clinical approaches when treating suicidal patients (Grant & Lusk, 2015; Wortzel, Matarazzo, & Homaifar, 2013). This approach is patient-centered and recognizes the importance of therapeutic assessment and treatment for suicide (Wortzel et al., 2013). Rather than a straightforward clinical assessment, structured suicide risk and severity psychological measures should be addressed in a clinician assessment as well to determine suicide risk (Wortzel et al., 2013). Once severity is understood, a safety plan should be developed by the hospital staff to appropriately address suicide prevention techniques best suited for each patient (Wortzel et al., 2013) and that addresses multiple areas of health: biological, psychological, social, and cultural (Grant & Lusk, 2015). Thus, it is important for care teams to include a psychiatrist or other behavioral health specialist in decision-making for suicidal patients (Grant & Lusk, 2015).

INTERNATIONAL HOSPITALS, PROGRAMS AND GUIDANCE

Self-Harm

Just as the United States has developed guidelines and conducted research surrounding specific policies and practices for suicide and self-harm prevention, international entities have done the same. These guidelines are especially important because self-harm behaviors are often not a singular event but will recur over time (Townsend et al., 2016).

For example, the National Institute for Health and Care Excellence guidelines from the United Kingdom include recommendations for care and psychosocial assessment, as well as guidance to establish care plans and overcome barriers associated with individuals who have experienced self-harm (Kendall, Taylor, Bhatti, Chan, & Kapur, 2011). This guidance provides eight quality statements and ways to measure each regarding the treatment of those who have previously self-harmed: compassionate treatment, initial assessment, comprehensive psychosocial assessment, monitoring, physical environment, risk management plan, psychological interventions, and moving between services (National Institute for Health and Care Excellence, 2013). These quality standards outline how providers, healthcare professionals, and patients themselves can expect these guidelines to work in practice (National Institute for Health and Care Excellence, 2013).

Additionally, the National Institute for Health and Care Excellence outlines guidance that should be followed by all areas of hospitals. For example, emergency departments should follow the guidelines when treating patients after any self-harm attempt and should require a mental health evaluation of all patients before they are released (Olfson et al., 2012). This assessment will help ensure a better understanding of the patient's current mental state and indicate the best treatment to prevent future incidents (Olfson et al., 2012).

Other researchers also recommend an assessment to understand the mental state of the patients. For example, self-harm patients should complete an assessment to help determine motives, suicide intent, and lifetime problems experienced to provide further insight into treatment and future risk (de Beurs et al., 2018). Differing motives for self-harm may require differing treatment and more personalized care to prevent recurrence or suicide attempts (de Beurs et al., 2018).

Specific treatments for self-harm have shown promising outcomes to reduce death following a self-harm episode. In an outpatient clinical setting, psychosocial therapy helped significantly reduce death caused by suicide related to alcohol and mental health disorders in the year following a self-harm attempt (Birkbak et al., 2016). While the original study was conducted in an outpatient environment, psychosocial therapy may also be effective in a hospital to prevent further self-harm or suicide during an inpatient stay (Birkbak et al., 2016). Nonetheless, since self-harm is generally caused by a wide

array of stressful life events and factors, prevention of self-harm will require a multi-faceted to address the various needs of the patients (Townsend et al., 2016).

Suicide

In 2014, the World Health Organization acknowledged the importance of suicide prevention efforts worldwide and provided information about risk factors and treatment measures that should be considered by all governments (2014). These recommendations include screening for suicidal and self-harm thoughts for anyone presenting with these thoughts or those above age ten who have chronic pain, acute emotional distress, or another concerning diagnosis (World Health Organization, 2014). However, the majority of the WHO guidelines do not specifically address suicide in inpatient settings, rather, they focus on the community-level prevention.

The National Institute for Health and Care Excellence has also provided guidance for communities and hospitals to help reduce inpatient suicide risk with five quality statements including prevention partnerships, reduction of access, reporting in media, involving supporters during care, and providing for those affected by suicide (National Institute for Health and Care Excellence, 2019). While most of the recommendations include a multi-agency program to reduce suicide risk, there are a few guidelines for care of suicidal patients in the hospital. First, in the hospital setting specifically, these guidelines call for accurate reporting of self-harm and suicide-related incidents as well as ensuring patient family and/or friends are included (or not), according to the patient's wishes (National Institute for Health and Care Excellence, 2019). If a patient dies by suicide in the hospital, the staff should be prepared to provide support and help to the family and loved ones as needed to reduce their risk of suicide after the loss (National Institute for Health and Care Excellence, 2019). Similarly, Australian healthcare officials stresses the importance of identifying patients at risk for suicide and conducting proper follow-up with them to prevent suicide (Australian Commission on Safety and Quality in Health Care, 2017).

The Mental Health Act 1983 in the United Kingdom requires hospitalization of those with certain psychiatric disorders and has been used frequently to detain individuals as a way to prevent self-harm and suicide (Wang & Colucci, 2017). While there are many positive effects of hospitalization for care of those admitted after a suicide attempt, the time spent in the hospital can cause adverse response for some (Bantjes et al., 2017) and creates a concern for human rights (Wang & Colucci, 2017). When in an emergency psychiatric unit, a lack of coordination of care received, services available not matching needs, and concern over losing identity all can contribute to a negative inpatient experience and can lead to increased suicide ideation (Bantjes et al., 2017). These concerns regarding hospitalization should be considered when determining the best care for patients who have experienced suicidality.

Clinical practice guidelines exist for suicide prevention but they often lack specific guidance and can be difficult to apply in particular contexts (Wilhelm et al., 2017). However, researchers have identified several procedures to reduce risk of inpatient

suicide. First, environmental modifications can address environment or patient-specific concerns. These may include installing a bar in any windows to reduce the risk of jumping or observing patients with more or less frequency based on predicted risk (Navin et al., 2019). Specific medications including antipsychotics, antidepressants, ketamine, and lithium have all helped reduce risk of suicide in inpatient settings (Navin et al., 2019). Cognitive Behavior Therapy and Collaborative Assessment and Management of Suicidality are two therapeutic intervention techniques that have been found to reduce suicide risk in inpatient settings (Navin et al., 2019). Finally, repetitive transcranial magnetic stimulation for three days helped significantly reduce suicidal intent among inpatients (Navin et al., 2019).

Another important aspect of reducing suicide risk is improving staff treatment of patients through staff education. Staff can potentially have negative relationships with patients and may lack the necessary skills to properly take care of suicidal patients (Navin et al., 2019). Therefore, improving staff knowledge and understanding of proper patient care is imperative to reducing suicide risk. One such training is the Skills Training on Risk Management project, which provides various modules to improve problem solving and crisis management. This training program has shown positive results on staff attitudes and knowledge regarding care for patients who may be suicidal (Navin et al., 2019). Gatekeeper training for hospital staff and community members has been shown to increase attitudes, knowledge, and confidence toward suicidal individuals and prevent suicide attempts around the world (Sanne et al., 2018). Training on Additionally, all staff including non-clinical members can benefit from short suicide prevention training to better understand the basis of suicide and how to handle patients who are experiencing suicidal thoughts or behaviors (Berlim, Perizzolo, Lejderman, Fleck, & Joiner, 2007) and should be required at the organizational level to better care for suicidal patients (Donald, Dower, & Bush, 2013). Staff attitudes and behavior can have an effect on patient's well-being throughout a hospital stay.

The Verbal Suicide Scale was developed to be a short yet effective diagnostic tool to determine suicide risk among psychiatric patients (Koweszko et al., 2016). The scale measures avoidance, internalized aggression, and hopelessness (Koweszko et al., 2016). Use of the Verbal Suicide Scale may allow physicians and hospital staff to quickly and accurately understand the suicide risk of individual patients and help determine the best course of care (Koweszko et al., 2016).

A more recent concern for inpatient suicide relates to assisted suicide. The legality of assisted suicide in some countries can create conflict among providers aiming to prevent suicide attempts while honoring right-to-die desires (Reiter-Theil, Wetterauer, & Frei, 2018). While both suicide prevention and assisted suicide may coexist, it can be difficult to perfectly balance the differing objectives when trying to honor patient wishes and provide quality preventative care. Clearer guidance is needed, especially in countries where assisted suicide is legal, to help alleviate these contradictory situations (Reiter-Theil et al., 2018).

SYNTHESIS OF THEMES

Based on the literature and guidelines available regarding self-harm and suicide, a few key themes have emerged. First, more guidance and research has been provided for inpatient suicide prevention than self-harm prevention specifically. Nonetheless, these two topics are closely related and can have similar prevention strategies (Hawton et al., 2015). Suicide and self-harm attempts are usually the result of multiple stressors and other factors (Betz et al., 2016; de Beurs et al., 2018; Hawton et al., 2015; Navin et al., 2019; Townsend et al., 2016).

Similarly, self-harm and suicide prevention efforts are multifaceted and require coordination and training among hospital staff. Staff need training on how to properly interact with patients who are at risk and need increased confidence in their knowledge and ability to carry out necessary actions (Navin et al., 2019). Objects in the environment are a commonly used by patients to attempt suicide and self-harm in inpatient settings, so it is important for private areas and specific items to be monitored when a patient is at higher risk for suicide or self-harm (Mills et al., 2013; Mills et al., 2010; Navin et al., 2019). Multidisciplinary teams can address multiple dimensions of patient health and provide treatment that improves physical and mental health (Grant & Lusk, 2015).

Screening of patients who may have suicide ideation is an important step to adequately measure risk and allow for the best care plan possible (de Beurs et al., 2018; National Institute for Health and Care Excellence, 2013; The Joint Commission, 2020). Emergency rooms can screen patients as well, ensuring individuals are cared for prior to discharge (Olfson et al., 2012). Having a better understanding of a patient's motives and history will allow for better care and a more effective plan of action for patients (de Beurs et al., 2018).

Another major theme emerged that limits the ability of researchers. A lack of consistent reporting and estimates of self-harm and suicide in inpatient settings can inhibit the ability to accurately track and measure the success of interventions. Although it is believed inpatient suicide has decreased recently in the United States (Matthay et al., 2018), there has been inconsistent reporting in different States and countries, making it difficult to estimate the true frequency (Reuter Morthorst et al., 2016; Walsh et al., 2015; Williams et al., 2018). More accurate reporting and surveillance of suicide and self-harm rates among individuals staying in a hospital will help provide better feedback on the efficacy of policies and practices implemented by the hospital to reduce risk.

Finally, policy plays a vital role in reducing inpatient suicide and self-harm. As part of the recognition of suicide as a global issue by the WHO, it was recommended that countries develop a plan to address suicide attempts and mitigate risk among their citizens (World Health Organization, 2014). Having policies in place such as the National Institute for Health and Care Excellence and The Joint Commission's National Patient Safety Goals, promotes standardization of patient care (National Institute for Health and Care Excellence, 2013, 2019; The Joint Commission, 2020). Governments should seek to

establish policies to help support hospital staff and protect patients experiencing self-harm or suicide ideation.

DISCUSSION

Suicide and patient self-harm is an area of patient safety that has been addressed in a variety of ways including hospital practices, environmental modification, staff education, and more. In the United States, The Joint Commission did not provide separate suicide and self-harm prevention. Reducing self-harm incidents was only addressed as a way to prevent eventual suicide (The Joint Commission, 2020). Similarly, Australia also included self-harm and suicide in the same action steps (Australian Commission on Safety and Quality in Health Care, 2017), but did not offer much guidance into how this should be carried out properly in a hospital. Meanwhile, the National Institute for Health and Care Excellence in the United Kingdom addressed both suicide and self-harm prevention at length and provides more practical applications of the guidance (National Institute for Health and Care Excellence, 2013, 2019). Hospitals and healthcare systems should aim to have more established and practical guidelines to ensure the appropriate standard of care is received.

Environment modification is included in the self-harm and suicide guidelines provided by The Joint Commission and the National Institute for Health and Care Excellence (National Institute for Health and Care Excellence, 2013, 2019; The Joint Commission, 2020). After the implementation of the Mental Health Environment of Care Checklist by the Department of Veterans Affairs in the United States, the agency was able to significantly reduce the number of inpatient suicides conducted at their hospitals. The extensive research aimed at understanding suicide in veteran inpatient populations and the sustained reduction in suicide rates among inpatients in veterans' hospitals may provide useful guidance for other facilities.

Suicide attempts are more likely to occur in psychiatric hospitals and in private areas of a patient's room (Williams et al., 2018). This aligns with findings in the creation and development of the Veterans Affairs Checklist (Mills et al., 2013; Mills et al., 2010), identifies those areas as being of utmost importance during observation and safety checks. Staff awareness of items and areas that can be utilized for self-harm or suicide is critical for all hospital staff to help mitigate risk. Patients may require more supervision in specific areas of higher risk (Navin et al., 2019).

While staff training is an important aspect for suicide prevention, many States do not require suicide prevention training (Graves et al., 2018). Furthermore, most of the suicide prevention trainings available are gatekeeper training not specific to the hospital staff (Litteken & Sale, 2018; Sanne et al., 2018). Short suicide prevention trainings have been shown to improve staff knowledge and capability (Berlim et al., 2007), but more can be done. Specific, comprehensive, and interdisciplinary trainings for hospital staff should be developed and required to better equip all staff to handle patients with suicidal ideation.

Despite these efforts to reduce the number of inpatient suicides, there does not seem to be a clear downward trend in inpatient suicides and self-harm incidents (Williams et al., 2018). However, as previously mentioned, without concrete data, it is challenging to accurately measure the impact these guidelines and practices are having on the issue.

RECOMMENDATIONS

To mitigate suicide and self-harm risk in inpatient settings, there are several practices, tools, policies, and other interventions that can be utilized. Hospitals should seek to implement best practices when possible to reduce risk. These recommendations are a combination of practices and guidelines from around the world and are crucial to reducing the self-harm and suicide-related deaths in hospital settings (see Figure 1).

Practices

Every behavioral health patient should be assessed for current suicide and self-harm risk (de Beurs et al., 2018; Koweszko et al., 2016; National Institute for Health and Care Excellence, 2013, 2019; The Joint Commission, 2020). Risk assessment should include both clinical and psychological components to accurately determine patient risk of suicide or self-harm (Grant & Lusk, 2015; Wortzel et al., 2013). A determination of this risk can be utilized to develop a plan of action for the duration of the hospital stay and may include psychotherapy, medicine, or other forms of therapy to reduce suicide risk (Navin et al., 2019). The Safety-Plan Intervention methods may also be incorporated into the action plan to provide patients with coping strategies to prevent suicidal behavior (Stanley & Brown, 2012). Patient rooms should be ligature-resistant and monitored for other potentially hazardous areas and items that may be used for self-harm (The Joint Commission, 2020). Patients with higher risk may require more frequent observation or even constant observation (Navin et al., 2019; Russ, 2016). Psychosocial therapy should be considered for patients who have previously self-harmed (Birkbak et al., 2016).

Tools

There are a few tools that may mitigate self-harm and suicide risk. First, a self-harm or suicide risk assessment can be used to evaluate patients on intake and reevaluate over time (de Beurs et al., 2018; Koweszko et al., 2016; National Institute for Health and Care Excellence, 2013, 2019; The Joint Commission, 2020) such as the Verbal Suicide Scale (Koweszko et al., 2016), the Columbia Suicide Severity Scale (Posner et al., 2011), the Beck Scale for Suicide Ideation (Beck, Steer, & Ranieri, 1988), or other self-reported suicide measures (Grant & Lusk, 2015). Emergency departments may also benefit from these assessments, which can prevent them from prematurely discharging patients who may still benefit from care (Olfson et al., 2012). Additionally, an environmental checklist such as the Mental Health Environment of Care Checklist may help identify areas and objects that are most likely to be utilized for suicide or self-harm attempts (Mills et al., 2013; Mills et al., 2010). The Safety-Planning Intervention may be utilized by physicians and other hospital staff to emphasize strategies the patient may

use to withstand suicidal urges based on resources available during their hospital stay (Stanley & Brown, 2012).

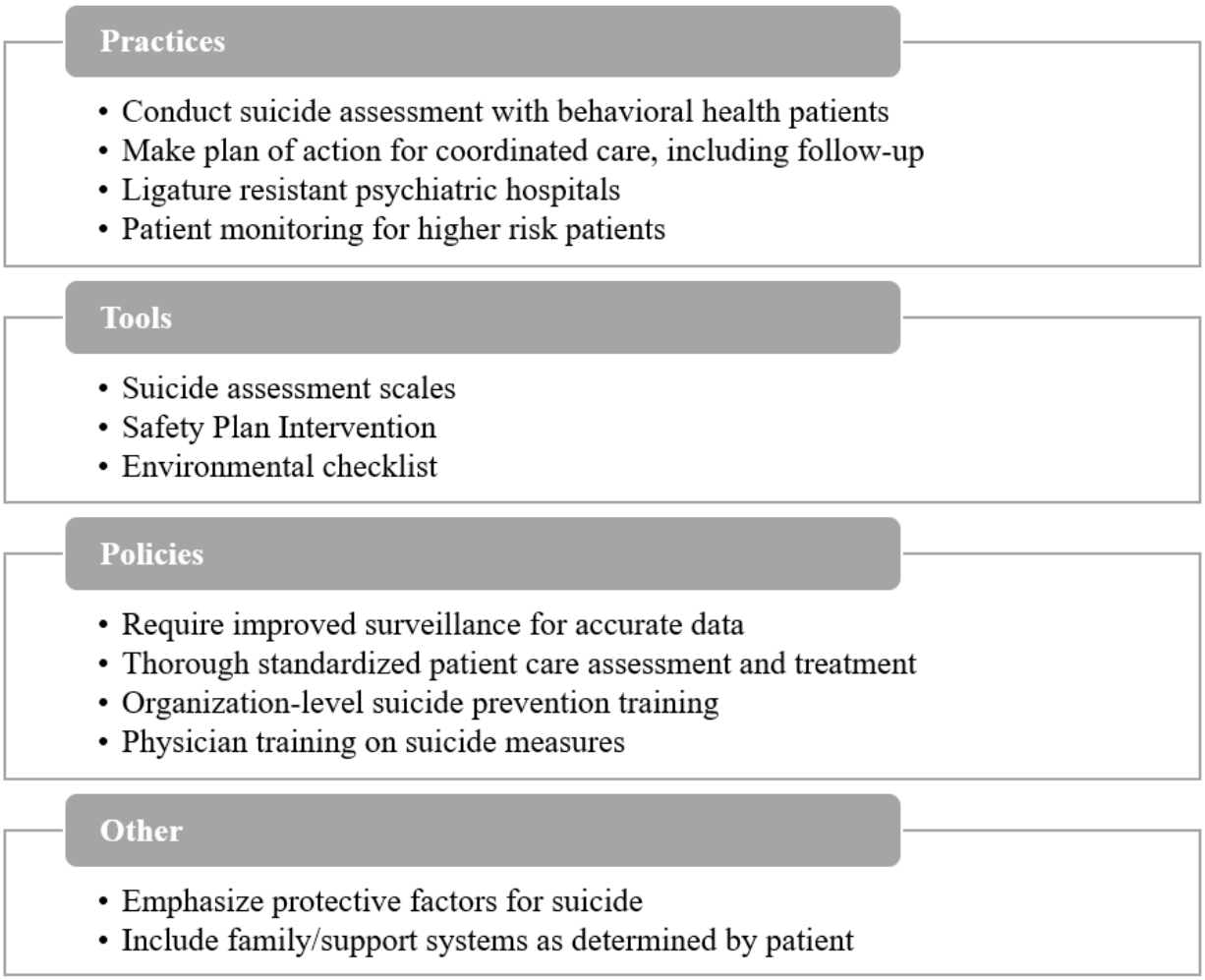

Figure 1. Recommendations for self-harm and suicide prevention in in-patient settings.

Policies

Hospitals and other healthcare organizations should develop and implement policies related to self-harm and suicide attempts that may occur prior to arriving or during the hospital stay. These policies should include standardized requirements for patient assessment and follow-up (Australian Commission on Safety and Quality in Health Care, 2017; National Institute for Health and Care Excellence, 2013, 2019; The Joint Commission, 2020). Requiring suicide training at the organization level can improve attitudes and confidence when interacting with suicidal patients (Donald et al., 2013). Nurses and non-clinical hospital staff should have comprehensive training to improve their knowledge and skill in caring for patients with suicide ideation (Berlim et al., 2007; Navin et al., 2019) and be required to work with a multidisciplinary team when caring for patients expressing suicide ideation (Grant & Lusk, 2015). Physicians should be formally trained to appropriately administer and score suicide risk assessments to

ensure proper use and determination of risk (Grant & Lusk, 2015; Wortzel et al., 2013). Additionally, policy change should address better monitoring and reporting of suicide and self-harm attempts during a patient stay to improve surveillance and measurement.

Other

In addition to the above recommendations, healthcare providers can also discuss with the patient the desire to involve family and friends during treatment, which may help improve care (National Institute for Health and Care Excellence, 2019). Additionally, protective factors for suicide such as close relationships, and overall social and emotional well-being can help reduce inpatient suicide risk (World Health Organization, 2014). The goal of healthcare providers should be to improve quality of a patient stay while seeking to reduce the risk related to self-harm and suicide.

Special Considerations

While this paper has mostly focused on inpatient hospital settings, nursing homes and other long-term care facilities are also in a unique position to address and mitigate suicide risk among residents. Similar to inpatient settings, the suicide attempt rate among residents of long-term facilities is unknown (Mezuk, Rock, Lohman, & Choi, 2014; O'Riley, Nadorff, Conwell, & Edelstein, 2013). However, recent reports suggest over two percent of the older adult population living in or transitioning to long-term care in the United States completes suicide (Mezuk, Ko, Kalesnikava, & Jurgens, 2019), which makes this population a concern for prevention efforts. Since 2010, long-term care facilities in the United States that receive Medicare or Medicaid payments are required to gather suicide ideation information upon intake of new residents, which is a limited yet helpful assessment tool (O'Riley et al., 2013).

In the United States, The Substance Abuse and Mental Health Services Administration has created guidance to help long-term care facilities promote social and emotional well-being among residents and how to address suicide behaviors and deaths (2015). Many individuals in long-term care facilities face depression and other comorbid conditions which affect quality of life (Murphy, Bugeja, Pilgrim, & Ibrahim, 2018). Compared to hospitals, long-term care facilities are in a better position to facilitate community and social interactions among residents to reduce suicide ideation (Substance Abuse and Mental Health Services Administration, 2015). However, long-term care facilities face different issues related to monitoring and treatment of suicidal individuals. Residents in long-term care are generally older and often widowed or unmarried (O'Riley et al., 2013; Substance Abuse and Mental Health Services Administration, 2015), and have had many major life stressors (Murphy et al., 2018), which may lead to increased suicide risk. However, many long-term care facilities require screening and frequent monitoring of patients with suicide ideation which can be protective (O'Riley et al., 2013). It is estimated that only about one third of nursing home staff in the United States have received proper suicide prevention training and even less felt confident in handling suicidal behaviors (Couillet, Terra, Brochard, & Chauliac,

2017). Nonetheless, long-term care facilities can adopt policies and practices from short-term care settings to better help manage suicide risk among their patients.

First, assessment of risk is critical in understanding suicide ideation among patients. It can be challenging for caretakers to understand nuances between desires for death versus suicide (O'Riley et al., 2013). Long-term facilities may benefit from community partnerships with behavioral health specialists to help navigate suicide situations (O'Riley et al., 2013; Substance Abuse and Mental Health Services Administration, 2015). Additionally, it is vital that suicidal behaviors are extinguished as soon as possible to prevent strain on other residents and staff of the facility (O'Riley et al., 2013). Generally, long-term care facility may enact constant observation or 15-minute interval check-ups for suicidal individuals, which can lead to frustration and disdain from the residents (O'Riley et al., 2013). However, other facilities choose to send suicidal individuals for care in psychiatric units in hospitals, but these hospitalizations accrue many costs and often do not improve risk (O'Riley et al., 2013). Thus, facilities should determine a plan of action to respond to suicidal behavior, whether it involves in-house care or transport to a psychiatric hospital and make the transition as smooth as possible (O'Riley et al., 2013; Substance Abuse and Mental Health Services Administration, 2015). Long-term facility staff as well as volunteers should be trained on protocol for addressing suicidal ideation and behavior among residents (Substance Abuse and Mental Health Services Administration, 2015). This training may include gate-keeper training which has shown significant improvements in staff interaction with suicidal patients (Chauliac, Leaune, Gardette, Poulet, & Duclos, 2019). With attention to social interaction and an appropriate plan of action, long-term care facilities can help prevent suicide attempts among residents.

Limitations

Notwithstanding the research and policies related to inpatient self-harm and suicide attempts, there are many barriers to adequately addressing these issues. Many studies cited a lack of data or inconsistency in the reporting of suicide and self-harms as limitations. The lack of consistent data makes it difficult to measure how effective a treatment may have been, and which treatments are more or less effective than others. Additionally, countries vary dramatically in the reporting of suicide and self-harm rates making comparisons difficult (Walsh et al., 2015). Limited evidence has been published regarding suicide prevention in nursing homes and other long-term care facility (Chauliac et al., 2019).

Also, published guidelines are general clinical practice guidelines, rather than a clinical pathway to treatment (Wilhelm et al., 2017). Clinical practice guidelines are generally less specific with less information provided on how to implement them in hospital settings. Thus, clinical practice guidelines are more difficult to put into place (Wilhelm et al., 2017).

Finally, suicide and self-harm are often caused by distinct types of stressors and emotional distress. A variety of objects and places within the hospital may be used to

carryout self-harm or suicide attempts. Therefore, standardization of care may be difficult as no two patients will be alike. Nonetheless, having established guidelines that include a patient assessment can help staff identify risk levels and focus their efforts. The uniqueness of each patient is another reason nurses and hospital staff need to be well-trained and confident in their skills in order to provide the best care possible while maintaining standards.

Future Research

There are several areas where future research may be beneficial. While the focus of this paper is inpatient suicide, hospitals should consider how to address suicide that occurs after a patient returns to the community following hospital stay or emergency room visit, since post-discharge suicide is known to be a frequent occurrence (Riblet et al., 2017). In additional, more globally accepted standards should be developed to help improve patient care and reduce suicide risk around the world, especially in nursing homes, long-term care, and other skilled nursing facilities. More specific standards such as a clinical pathway may be beneficial and more easily implemented than the less specific guidance that exists. Finally, improved surveillance systems need to be deployed to accurately track the number of attempted and completed suicide and self-harm episodes. A better tracking system will allow for more accurate measurement of interventions.

CONCLUSION

Inpatient settings have a certain risk for suicide and self-harm among patients who may be suicidal or under stress from various causes. Though the hospital can be a place of restoration and healing, some aspects of hospital care may exacerbate suicide ideation and self-harm risk among patients. Therefore, hospitals should seek to implement guidelines that mitigate risk while still providing the patient with optimal care. While research exists to help mitigate this risk, more research and data collection is needed to find the most effective interventions. Research efforts being conducted around the world may identify measures that most effectively reduce incidences of suicide and self-harm.

AUTHOR

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