Recommendations for Perioperative Care of Adolescents at Risk for Suicide

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Recommendations for Perioperative Care
of Adolescents at Risk for Suicide

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A scholarly paper submitted to the faculty of
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ABSTRACT

Recommendations for Perioperative Care of Adolescents at Risk for Suicide

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Suicide is one of the leading causes of death for the adolescent population, and as such, should be addressed when adolescents have any contact with the healthcare system, including perioperative appointments. Although some surgical facilities screen patients with a history of suicide attempt or severe mental health conditions, many adolescents who have died by suicide do not have official mental health diagnoses or history of previous suicide attempt. Because of the impact surgery can have on mental health, each adolescent should be screened for suicide risk during pre-surgical consult appointments to assess suicide risk and take proper precautions, as needed. Suicide screening should be implemented as part of the focused assessment prior to surgery to more comprehensively combat the rising suicide rates of adolescents. This paper provides recommendations to direct care of adolescent surgical patients at risk for suicide.

Keywords: suicide, perioperative, adolescent, surgery, mental health, suicide screening
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Recommendations for Perioperative Care of Adolescents at Risk for Suicide

Suicide is increasingly prevalent and has become the second leading cause of death from age 10 to 34 years, preceded only by unintentional injury (National Institute of Mental Health, 2019a). Rising suicide rates in the adolescent population are a great concern (Shain, 2016). From 2007 to 2017, suicide rates increased by 76% in adolescents aged 15 to 19, and nearly tripled (increasing from 0.9 to 2.5 per capita) among adolescents aged 10 to 14 (Curtin and Heron, 2019).

Because suicide during adolescence has become a prominent public health issue, healthcare professionals should be especially aware of suicide prevalence in this population, and incorporate actions to identify patients at risk (Shain, 2016). Adolescents are generally a healthy population, although most still visit a healthcare professional more than once per year (Centers for Disease Control and Prevention, 2018). Nevertheless, within the year prior to death by suicide, 71% of patients under 25-years-old had at least one healthcare visit, and 33% visited a healthcare professional within a month of their death (Stene-Larsen & Reneflot, 2019). Despite these adolescent healthcare visits, many patients are not screened for risk of suicide, and do not receive psychiatric support even though such support would be helpful.

Additionally, the majority of adolescents who die by suicide do not have a documented mental health diagnosis. In fact, Keeshin et al., (2018) demonstrated that less than 1 in 3 adolescents who died by suicide had a medically documented mental illness prior to death. Therefore, the deficiency of a documented mental illness in an adolescent patient does not necessarily equate with a low adolescent suicide risk.

Although several studies have focused on suicide screening for patients in primary care settings, during hospital admissions, or in emergency departments, no studies focus on suicide
screenings in perioperative settings. Nevertheless, perioperative providers should not discount the need to screen for suicide because of the potential impact surgery could have on the mental health of adolescent patients. Although some adolescent surgeries have a relatively quick recovery, other post-surgical patients experience impaired mobility, the need to use and manage new prescription pain medication, limited social interaction, alteration in routines, and decreased independence (Rabbitts et al., 2017). Each of these changes has the potential to negatively affect an adolescent’s mental health.

Although the focus in the operating room may be one particular body system, the effects of surgery will likely extend into other areas of the adolescent’s life. Even adolescents without underlying mental health issues report high levels of anxiety and stress related to surgery, feelings of under preparation for physical recovery and post-surgical pain, difficulty sleeping, and a need for coping mechanisms following surgery (Rabbitts et al., 2017). The purpose of this paper is to identify factors that place adolescents in perioperative settings at risk for suicide and provide recommendations when caring for adolescents postoperatively.

**Methods**

Initial searches included the databases CINAHL, MEDLINE, EBSCO, and PsychINFO, using the search terms perioperative, preoperative, postoperative, surgery, adolescents, suicide, mental health, depression, pain, opioid, social media, and suicide screening. Inclusion criteria incorporated articles published in English since 2015 that focused on aspects of adolescent suicide demographics, factors contributing to adolescent suicide, adolescent suicide screening, and adolescents in perioperative care. Articles addressing suicidality in regards to bariatric or gender reassignment surgeries were excluded due to their unique psychological stressors. Articles about suicidality in the adult population were also excluded.
Results

General Adolescent Suicide Considerations

Implementing evidence-based suicide screening during perioperative appointments supports goals 8 and 9 of the National Strategies for Suicide Prevention, which are to “promote suicide prevention as a core component of healthcare services, and promote and implement effective clinical and professional practices for assessing and treating those identified as being at risk for suicidal behaviors” (National Action Alliance for Suicide Prevention, 2018, para. 1).

However, the postoperative experience may also contribute to existing risk factors for adolescent suicide. Patients and caregivers should be empowered with knowledge of potential suicide risk factors that could exist or increase while in the postoperative experience. While suicide risk is multifactorial, multiple studies demonstrate strong correlations with mental health disorders, media use, and substance abuse, including opioid use (Miché et al., 2018; Twenge et al., 2017). Patients and parents should be taught these risk factors preoperatively and create an individualized postoperative safety plan.

Mental Health Disorders

Existing mental health disorders are strongly correlated with suicide. Through retrospective data, Keeshin et al. (2018) found a mental illness diagnosis in up to 90% of adolescents who died by suicide. Affective disorders, which includes major depressive disorder (MDD), bipolar disorder, dysthymia (persistent depressive disorder), and seasonal affective disorder, have the strongest correlations with increased risk of first suicide attempt (Bilsen, 2018; Miché et al., 2018). Additionally, Miché et al. (2018) found 19 times increased risk of suicide attempt if the adolescent has three or more co-existing mental health diagnoses.
**Opioid Prescriptions**

Deaths from opioid overdose tripled among the adolescent population from 1995 to 2015 in the United States, and while the majority of those deaths were unintentional, suicide accounted for 21.9% of female adolescents who died by overdose and 8.7% of male adolescent overdose deaths (Curtin et al., 2017). These statistics do not include suicide attempts involving overdose that did not result in death, therefore percentages of adolescents who attempted suicide by opioid overdose could be higher.

Opioid overdose is also strongly associated with pre-existing mental health conditions, such as mood disorders like depression and anxiety, alcohol, and substance-related disorders (Groenewald et al., 2019). All mental health conditions are strongly associated with a higher rate of long-term opioid use after an initial opioid prescription and 61% of adolescents with Opioid-Use Disorder (OUD) also have depressive disorders (Quinn et al., 2018).

**Media Use**

Higher levels of depressive symptoms and suicide are associated with internet use and social media activity (Sedgwick et al., 2019). Specific use of social media sites is strongly correlated with depressive symptoms, especially in females. Those who use social media sites daily are 13% more likely to exhibit depressive symptoms than those who use social media less consistently. Adolescents with high use of social media and low amounts of time spent with face-to-face communication experience the highest levels of depressive symptoms (Twenge et al., 2017). In relation to suicide attempts, Twenge et al. (2017) found that adolescents who use electronic devices at least 3 hours a day have a 34% increased risk of suicide compared to adolescents using devices for less than 2 hours per day. Additionally, 48% of adolescents using
electronic devices over 5 hours a day had a suicide-related finding, such as considering suicide, making a suicide plan, or making a suicide attempt.

**Adolescent Suicide Prevention Perioperative Recommendations**

An evidence-based suicide screening questionnaire prepared by the National Institute of Mental Health, and recommended by The Joint Commission is the Ask Suicide Screening Questions (ASQ) Tool (Joint Commission, 2018). The ASQ is intended for use in various settings, including specialty clinics, and is recommended for patients ages 10 to 24 years. The tool consists of four simple questions, can be conducted by nursing staff in less than one minute, and is currently available in 13 languages (National Institute of Mental Health, 2020a). The ASQ is free to access, and is available online (www.nimh.nih.gov/asq), along with the ASQ toolkit, which includes various training documents including: an information sheet, an example script for nursing staff, a brief suicide safety assessment, and a parent handout. The ASQ is shown to have a high sensitivity (96.9%), specificity (87.6%), and negative predictive value (99.7%), proving a valuable tool when assessing suicide risk (Horowitz et al., 2012).

Suicide screening should be performed prior to scheduling the surgery, preferably in the pre-surgical consult appointment with the surgeon. Following administration of the ASQ Tool, patients can be divided into two groups: those at risk for suicide and those not at risk for suicide. If patients are not at risk for suicide, surgery may proceed as planned. However, if a patient is found to be at risk for suicide, then the patient would undergo the Brief Suicide Safety Assessment (BSSA), which further assesses frequency and severity of suicidal thoughts, walks the provider through making a safety plan, and determines the suicidal disposition of the patient, together with the parents (National Institute of Mental Health, 2020b).
If the patient is at imminent risk of suicide, with current suicidal thoughts and a plan, the patient should be sent to an emergency department or crisis mental health facility for a psychiatric evaluation (National Institute of Mental Health, 2020b). Elective and non-urgent surgeries should be not be scheduled until clearance is given by a mental health professional.

If the patient is not at imminent risk of suicide, but requires further evaluation (determined by use of the BSSA), refer the patient to a mental health professional to be seen within 72 hours (National Institute of Mental Health, 2020b). Again, patients should wait to schedule elective surgeries until after the psychiatric evaluation and approval of the mental health professional.

If the patient does exhibit risk for suicide, but it is not deemed urgent (determined by use of the BSSA), refer the patient for a non-urgent visit with a mental health professional (National Institute of Mental Health, 2020b). The decision of whether or not to proceed with the surgery should be made in conjunction with the provider, patient, and parent or primary caregiver. Postoperative safety considerations should be discussed in order to aid the patient in navigating aspects of their postoperative experience that could affect their mental health and suicide risk.

**Mental Health Disorders**

Postoperative interventions for adolescents with mental health disorders include regularly scheduled meetings with their mental health professional, who can provide therapy and help them identify various coping skills. Regular physical activity is associated with lower levels of depression and anxiety and should be encouraged as soon as permitted following surgery (McMahon et al., 2016). While patients may face impaired mobility during the postoperative period, they may need to find other ways to remain active, and develop other coping mechanisms such as relaxation techniques, journaling, eating a balanced diet, limiting caffeine intake, deep
breathing exercises, adequate sleep, and talking to caregivers (Anxiety and Depression Association of America, 2018; Anxiety and Depression Association of America, 2020). Providers should suggest that the parents and patient discuss these coping mechanisms and form a plan together to help the adolescent adequately cope with their mental health disorder throughout their recovery period.

**Opioid Prescriptions**

If adolescent patients disclose mental health disorders or suicidal ideation perioperatively, care must be taken when opioids are prescribed. Interventions such as frequent follow-up phone calls assessing pain, prescribing fewer opioids at a time, and proper education to both parents and patients is appropriate. Education to parents and adolescents may include side effects of the medication, appropriate dosages and timing, expected duration of pain, signs of dependence, and proper disposal methods of excess medication. As stated by King (2018), in regards to suicide and opioid prescribing, “if opioids are prescribed, physicians bear the responsibility of monitoring patients for suicidal ideation because they may be arming patients with a method to complete suicide” (King 2018, p. 19).

**Media Use**

During the postoperative period, adolescents may not be attending school or other activities as they recover, and may desire to spend increased time on social media or electronic devices. Postoperative interventions to address suicide risk may include limiting social media and technology use, and planning regular phone calls or face-to-face interactions with peers throughout the recovery period. Patients and parents should discuss their postoperative plan for social media and technology use together to create an individualized plan to limit screen time use if its use contributes to increased depression following surgery (O'Keeffe, 2016).
Suicide Prevention

If patients are identified as high risk for suicide, patients and parents should be supplied with adequate resources to safely manage and treat suicide risk. Education about continual assessment of suicide warning signs should be communicated clearly to caregivers. Warning signs may include talking about wanting to die, creating a will, saying goodbyes, making a specific plan, researching methods to die, increased use of drugs and alcohol, giving away possessions, increased risk-taking, and withdrawing from relationships (National Institute of Mental Health, 2019b). Increased awareness of these signs can promote rapid responses by family members to obtain help.

The National Suicide Prevention Lifeline number (1-800-273-8255), which is available 24/7, should be distributed to both the patient and family members, with instructions to call in times of crisis (National Institute of Mental Health, 2019b). Any patient determined to be at risk for suicide on the ASQ Tool, should receive a post-operative follow-up phone call from the surgeon’s office within 48 hours to ensure they are receiving appropriate help, check on patient safety, and provide additional resources if necessary (National Institute of Mental Health, 2020b).

Conclusion

Suicide has become a rising concern for the adolescent population. Surgery provides an environment that could potentially impact mental health, as adolescent patients will be experiencing pain, using new opioid prescriptions, facing impaired mobility and decreased independence during their postoperative recovery. Perioperative providers who implement suicide screening into their pre-surgical consult appointment can identify adolescents at risk for suicide prior to proceeding with surgery, and form a plan of care to assist them in navigating the
postoperative experience. Perioperative interventions for patients at increased suicide risk include encouragement of therapy visits, management of mental health conditions, extensive education about pain medication use, warning signs of suicide, and suicide prevention hotline numbers. Efforts are needed in all aspects of care, including perioperative care, in order to effectively combat the rising suicide rates of teens and adolescents.
References


Joint Commission (2018) Suicide prevention resources to support Joint Commission accredited organizations implementation of NPSG 15.01.01, revised November 2018. Available at:


National Institute of Mental Health (2020a) Ask suicide-screening questions (ASQ) toolkit.


Appendix A

Perioperative Suicide Screening Algorithm

Screen for suicide with ASQ Tool at pre-surgical consult appointment

At Risk for Suicide

Not at Risk for Suicide

Conduct Brief Suicide Safety Assessment

Imminent Risk
- Send to Emergency Room or Crisis Mental Health Facility
- Follow-up phone call within 48 hours
- Proceed with surgery after clearance from mental health provider

Urgent Risk
- Refer for Psych Evaluation by mental health provider within 72 hours
- Shared decision making with parent and patient to proceed or postpone surgery
- Follow-up phone call within 48 hours

Non-Urgent Risk
- Refer for non-urgent appointment with mental health provider
- Proceed with surgery

Proceed with surgery with postoperative mental health plan

- Regular therapy appointments
- Encourage coping mechanisms for mental health disorders
- Careful monitoring of opioid pain medication
- Encourage personal plan for social media and technology use
- Familial monitoring or suicide warning signs
- Provide suicide hotline number

Adapted from: National Institute of Mental Health, 2020b