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ORIGINAL RESEARCH

Development of a Clinical Pathway for the Assessment and Management of Suicidality on a Pediatric Psychiatric Inpatient Unit

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Purpose: This article describes steps taken by a mental health inpatient multidisciplinary team to develop a clinical pathway for the assessment and management of suicidality in a pediatric psychiatric inpatient unit.

Patients and Methods: The setting for this project is a 19-bed inpatient psychiatry unit providing care for children and adolescents (6–17 years of age) in a tertiary care pediatric hospital in Ontario, Canada. Three Lean methodologies were used: 1) The A3 process was used to articulate a problem statement and help clarify expectations, determine goals, and uncover, address and encourage discussion of potential issues; 2) Process mapping was used to show how work process activities are sequenced from the time of the patient's admission to discharge; and 3) Standard work, where consideration was given to the breakdown of the work into categories which are sequenced, organized and repeatedly followed. Generally accepted methodologies for developing clinical pathways were used to create a framework and algorithm for the assessment and management of suicidality in psychiatrically hospitalized children and adolescents.

Results: The clinical pathway development resulted in six steps from admission to discharge: intake process, inclusion/exclusion criteria, data integration and treatment formulation, interventions, determination of readiness for discharge, and the discharge process.

Conclusion: This framework, developed with the aim to standardize care for psychiatrically admitted suicidal children and adolescents, may serve as a flexible template for use in similar settings and could be adapted according to local realities and resources.

Keywords: adolescents, suicide, hospitalized, psychiatry

Introduction

Suicide is the second leading cause of death among 10 to 24-year-olds.[1] In a period of 12 months, approximately one-third of adolescents with suicidal ideation will go on to attempt suicide and 60% of youth with a suicide plan reportedly go on to make a serious suicide attempt.[2] The adolescent hospitalized on account of suicidality likely represents the highest risk of death given that suicide rates are the highest in the first 3 months following hospital treatment.[3–6] As such the inpatient mental health setting presents an important opportunity to optimize the process of assessment and intervention and to begin an effective discharge process. Together, these processes could improve suicide care and lower the risk for this high-risk population. Despite the many evidence-based clinical practice guidelines for the management of suicidality in children and adolescents,[7,8] there are no clinical pathways for the management of suicidality in children and adolescents hospitalized in a mental health setting.

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Clinical pathways generally have defined and accepted criteria[9] and involve:

- multidisciplinary teams
- evidence-based guidelines translated for local structures
- steps developed in a plan, pathway or algorithm
- time frames or criteria-based progression
- standardized care for a specific population

This article describes the steps taken by a mental health inpatient multidisciplinary team to develop a clinical pathway for the assessment and management of suicidality in a pediatric psychiatric inpatient unit.

Patients and Methods

Setting

The setting for this project is a 19-bed inpatient psychiatry unit in a tertiary care pediatric hospital in Ontario, Canada. The model of inpatient care is acute crisis stabilization and assessment for children and adolescents from age 6–17 years admitted to hospital for a mental health crisis. The inpatient unit has an interdisciplinary model of care delivered by registered nurses, child and youth counselors, occupational therapists, social workers, psychologists, psychiatrists, general physicians, teachers, and a pharmacist. Upon admission, each child and adolescent participates in a standardized assessment, including a psychiatric assessment and completion of self-, parent-, and clinician-rated standardized measures, to establish a provisional diagnosis and identify their individual clinical needs and strengths for the purpose of treatment planning.

Procedure

Three Lean methodologies[10] were used in the process of developing the clinical pathway. First, the A3 Process was used to articulate a problem statement and help clarify expectations, determine goals, and uncover, address and encourage discussion of potential issues. The A3 is a structured process for solving problems and uses a single sheet of ISO A3-size paper, which is the source of its name.[11] Second, process mapping was used to show how work process activities are sequenced from the time of the patient's admission to discharge. A work process is defined as a repetitive and systematic series of actions or operations whereby an input is used to achieve an outcome such a product or service. Third, standard work principles were followed and consideration was given to the breakdown of the work processes or activities into categories which are sequenced, organized and repeatedly followed by everyone. By definition standard work in lean methodology means a detailed definition of the current best practice for performing a work process. Next, generally accepted methodologies for developing clinical pathways were used to create a framework and algorithm for the assessment and management of suicidality in psychiatrically hospitalized children and adolescents.

The steps taken in the development of the clinical pathway are presented in Table 1.

Identification of the Problem

The impetus for the development of the clinical pathway was the dissatisfaction among the multidisciplinary team members, patients, families and community stakeholders with the wide variation in clinical practice on the unit.

An A3 root cause analysis was conducted which resulted in an agreed-upon problem statement:

The lack of a standardized clinical pathway in treating youth with a significant acute risk of self-harm has the potential to interfere with the delivery of effective and efficient clinical care which in turn could have a negative impact on patient care and on the relationship with families and community stakeholders, as well as on the functioning of the multidisciplinary team.

Examination of Acute Care Model and Profile of Admissions

Review of the profile of clinical needs of patients admitted to the unit based on the standardized admission assessment indicated a predominance of suicide risk in over 80% of

Table 1 Clinical Pathway Development Steps

1. Identification of problems
2. A3-root cause analysis and problem statement
3. Examination of acute-care model and profile of admissions
4. Decision point: selection of a clinical pathway – framework for clinical pathway for suicidality
5. Selection/formation of a multidisciplinary working group
6. Process mapping
7. Literature search
8. Environmental scan
9. Engagement of family and patient groups
10.Draft of algorithm a framework for suicidality clinical pathway

cases, in addition to symptoms of depression and anxiety, non-suicidal self-injury, and sleep disturbance in a majority of cases.

Decision Point

Given that suicidal ideation was the most prevalent presenting need, a decision was made to develop a clinical pathway for the assessment and management of suicidality on the inpatient unit.

Selection/Formation of a Multidisciplinary Working Group

The multidisciplinary working group comprised two psychiatrists, one social worker, one occupational therapist, two psychologists, one child and youth counsellor, one nurse educator, one charge nurse, one case coordinator and one clinical manager.

Process Mapping

Steps to create mapping were followed. A facilitator was selected followed by a stage of observation which consisted of walking through the work processes from end to end; collecting both material and information in real-time, making special notes of things done to correct problems or wastes as observed. Next there was a working group discussion and the work processes were drawn on a flipchart and also with the use of sticky notes. Steps were sequenced and missing steps were identified. Information was collected about each step such as; time to complete, time between steps, who does what step, waste, process gaps and patient experience.

Environmental Scan

Two members of the working group contacted comparable acute care child and adolescent inpatient units in Ontario and other provinces to gather information about the use of clinical pathways for the assessment and management of suicidality.

Engagement of Family and Patient Groups

The working group engaged family/caregivers and patients to provide input into the development of the pathway. Two members of the working group met with staff and the executive of an organization that provides navigation and support services for parents and caregivers to present a summary of the clinical pathway work and to gather general feedback on the inpatient psychiatry unit. The format of the meeting was an open discussion. The parent/caregiver group representatives provided favorable feedback on the clinical pathway and expressed hope that this would help increase family engagement in safety planning while youth are in hospital.

Feedback on the inpatient program and the clinical pathway was also sought from youth by engaging members of the youth advisory committee of a mental health prevention and promotion program affiliated with the hospital. Using a semi-structured interview format, one member of the working group met with five youth (four of whom had a previous admission to the inpatient psychiatry unit) for 90 mins, asking for information on their experiences and overall thoughts about the current programing and what they would consider to be most beneficial, based on either their personal experiences or feedback received from peers. Verbal consent was obtained to share the information with the other members of the working group. The youth were made aware that no identifying information would be given to the working group, that their comments would not in any way affect future hospital care, and they were free to retract the information provided by contacting the interviewer who provided a contact number.

Literature Search

A search of the published and grey literature was done to identify evidence-based interventions for the management and treatment of suicidality in hospitalized youth. The search strategies used for Medline and PsycINFO can be found in Appendix 1. The search identified 40 articles which were reviewed for relevance. Additionally we relied on the work by Coffey et al,[12] Dykes and Wheeler,[13] Gordon,[14] and Harkleroad et al.[15]

Draft of Algorithm and Framework for Suicidality Clinical Pathway

The working group had weekly meetings from February 2017 for a period of 18 months and created the algorithm of a framework for the clinical pathway.

Results

The clinical pathway development resulted in six steps from admission to discharge: intake process; inclusion/exclusion criteria; data integration and treatment formulation; interventions; determination of readiness for discharge, and the discharge process as depicted in Figure 1. Each step in the algorithm will be described.

Steps 1 to 3 are time linked as Steps 1 and 2 are completed during day 1 of the admission and Step 3 is

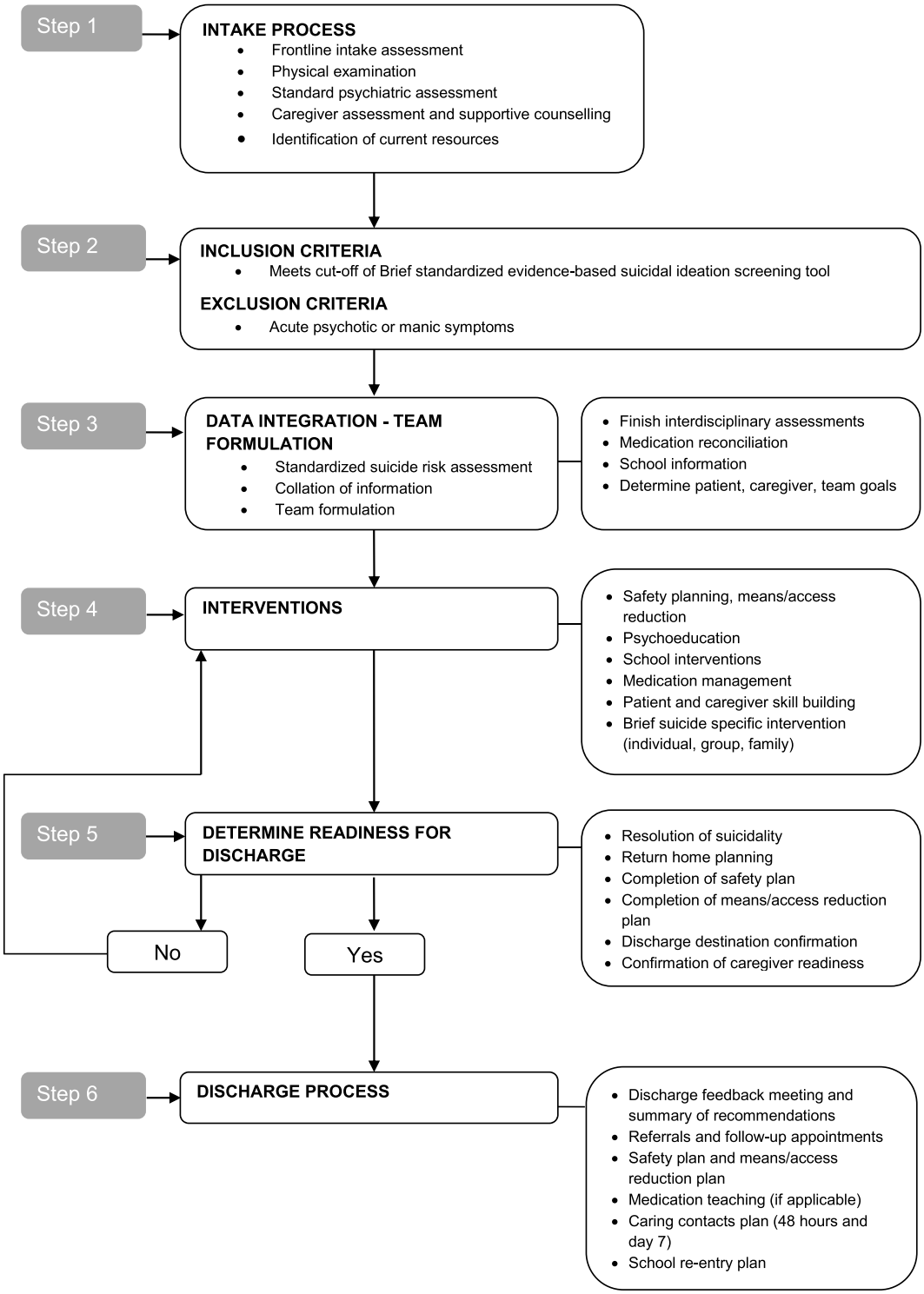

Figure 1 Clinical Pathway Algorithm.

completed with the first 2 days of the admission. The rest of the steps are implemented for the duration of the admission. For most acute stay inpatient psychiatry units the average length of stay is about 7–8 days with a range from 1 to about 14 days. This means Steps 3–5 are usually carried out over a period of 3–12 days.

In order to provide a safe environment for all newly admitted patients and staff and even before the intake

process begins, an initial determination of which level of supervision the patient needs is made by the admitting physician. It is based on the clinical judgment of the risk that the patient poses to harm themselves or others, or to be vulnerable to harm by others. Figure 2 describes the indicators for supervision levels for patients at risk during a psychiatric admission. The order to increase the level of supervision can be made on the unit by the charge nurse, designated nurse, child and youth counsellor, or the attending or on-call physician. All supervision orders are reviewed daily. Prior to decreasing the level of supervision, an order is obtained from the attending or on-call physician. Intermittent supervision requires that assigned staff visually check on the patient at a minimum of three times an hour. This is referred to as 15 mins checks in some institutions. It is recognized that this level of supervision is not effective in preventing harm to self or others and therefore is only initiated when there is no acute risk of such. An approved caregiver may supervise level 2B only. An approved caregiver is deemed by the institution to be competent to provide this level of supervision ordered for the patient. Examples are an agency sitter, patient care attendant, or corrections officer.

Step 1: Intake Process

The intake process occurs on day one of the admission. Frontline staff consist of child and youth counselors (CYCs), who have a college diploma or undergraduate degree in child and youth care, and registered nurses, some of whom have advanced training in pediatric mental health. They perform assessments within their scopes of practice. A physical examination is completed by the unit general physician and the standard psychiatric assessment is performed by the psychiatrist. Social workers complete family/caregiver assessments, and the case coordinator identifies the patient and family's current resources.

Step 2: Criteria for Inclusion

All patients admitted to the unit undergo a standardized clinician-rated assessment completed by a nurse or CYC – The Acuity of Psychiatric Illness Scale – Child and Adolescent Version (CAPI).[16] The CAPI is a reliable and valid measure of

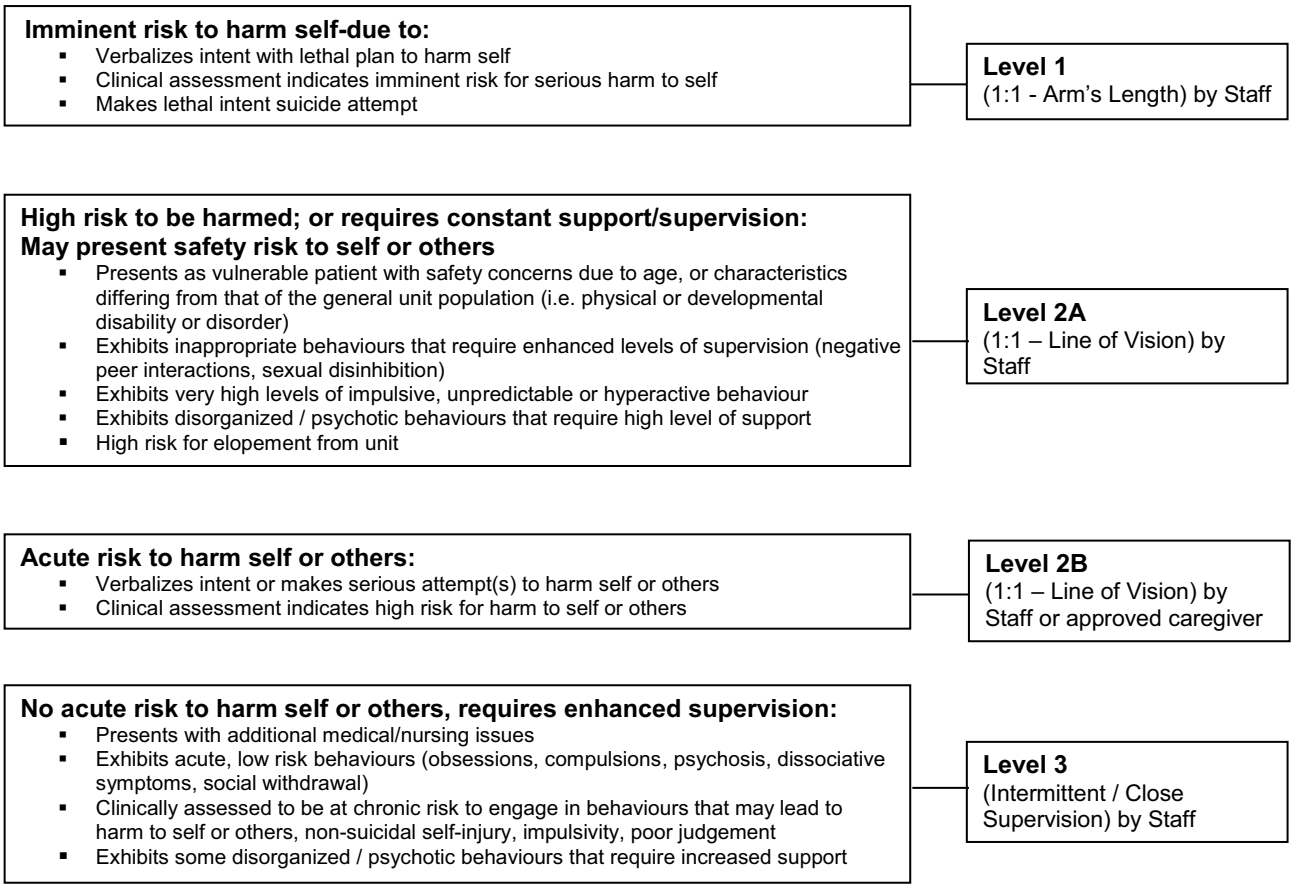

Figure 2 Supervision levels.

risk behaviors, symptoms and functioning.[16] It has four subscales, one of which is the risk behaviors subscale, which includes an item for suicidal ideation. The item is rated from a score of 0 to 3. The patient meets the inclusion criteria for the clinical pathway if he or she scores (2) moderate suicidal ideation or (3) severe suicidal ideation. The CAPI has been used on our unit since 2000 because it provides a standardized assessment of risk behaviors and symptoms that are relevant to an inpatient setting such as non-suicidal self-injury, aggressive behavior toward people or toward objects, impulsivity, among others, and it is designed to monitor change in acuity in acute care settings. The scale has good inter-rater reliability (0.78 to 0.85), good internal consistency (0.87) and good concurrent validity with the Child Behavior Checklist and the Global Assessment of Functioning (Lyons, 1998). Currently, our unit is using the CAPI as our suicide screening tool. The National Action Alliance for Suicide Prevention (NAASP)[17] has provided a list of some commonly used suicide screening instruments that could be utilized depending on the needs of the inpatient unit. It noted that there are hundreds of such instruments in use and their list is not to be considered as a prioritized list as such. For suicide screening, eight tools are listed: Ask Suicide-Screening Questions (ASQ),[18,19] Behavioral Health Measure-10 (BHM-10),[20] Behavioral Health Screen (BHS),[21,22] Brief Symptom Inventory 18 (BSI 18),[23,24] Columbia Suicide Severity Rating Scale (C-SSRS),[25,26] Outcome Questionnaire 45.2,[27] Patient Health Questionnaire-9 (PHQ-9),[28,29] and the Suicide Behaviors Questionnaire-Revised (SBQ-R)[30].

Step 3: Data Integration – Team Formulation

Following screening for suicide risk, a more in-depth assessment of suicide risk is recommended at this step. The NAASP included three examples such as the Columbia-Suicide Severity Rating Scale,[25] M-3 Checklist™[31] and Reasons for Living (RFL).[32,33] Our unit has yet to select any of these instruments for our clinical pathway. In the interim, the determination of suicide risk is by clinical judgement with the use of the CAPI.

Medication reconciliation is an important part of the admitting process. Many of the admitted patients are on one or more medications at the time of admission. It is important to do a medication reconciliation so that the initial medication orders match the pre-admission medication in type and dosage. Medication reconciliation is completed by the pharmacy technician who confirms the medications, dosing and titration plans for the patient with caregivers and the community pharmacy.

Attending school is a major expectation in childhood and adolescence. Some patients would have missed varying amounts of school, or have fallen behind academically on account of their mental health. There might be other stressors such as academic workload, tests and examinations, or trauma-related events such as bullying. These will need to be addressed to ensure a successful school re-entry. For school information the unit teachers liaise with the youth's community school and with consent receives information regarding academic and behavioral difficulties at school, classroom assignments to allow the patient to keep up to date with his peers during admission, and information about current school supports.

After the interdisciplinary assessments are completed and a team formulation is done, the goals for the admission are determined by the patient, caregiver and team.

Step 4: Suicide Specific Interventions

In Step 4 there are two important suicide-related interventions; firstly, a safety plan and secondly, suicide-specific interventions. The NAASP offers some recommended safety plans such as the Stanley and Brown model,[34] Crisis Response Safety Plan,[35] Collaborative Assessment and Management of Suicidality Stabilization Plan (CAMS),[36] Counselling on Access to Lethal Means (CALM)[37] and the Aeschi Approach.[38]

Our unit has been using the Stanley and Brown Safety Plan Intervention since 2014 as studies have demonstrated its use leads to lower suicidal ideation and greater patient engagement[39] and is found to be acceptable to both patients and staff for the purpose of maintaining safety.[40,41] Additionally it is brief, low-burden and customizable.[34] A potential barrier however could be a lack of motivation to use the plan.[42]

For more information about these instruments, the reader is referred to the National Action Alliance Report[17] and the specific instrument websites. A particular institution's choice may depend on factors such as cost, training and certification requirements, and whether reliability and validity studies have been done with children and adolescents psychiatric inpatients. The ASQ, C-SSRS, PHQ-9 and SBQ-R screening tools are cost-free as are the C-SSRS and RFL suicide assessment tools. Free safety and stabilization planning tools include the Aeschi Approach, CALM, Crisis Response Safety Plan and the Stanley and Brown's 2012 Safety Plan Intervention.

With respect to suicide-specific interventions, the Suicide Prevention Resource Centre[43] recommends the use of evidence-based psychotherapeutic interventions that are specific to suicidality which have the goal of reducing the patient's risk for future suicide-related thoughts and behaviors. Our unit has not chosen a particular suicide-specific intervention but we use the Stanley and Brown Safety Planning Intervention described above. Other possible suicide-specific psychotherapeutic interventions are discussed further in the discussion section.

Psychoeducation for the patient and caregiver is provided with respect to information about suicide risk non-suicidal self-injury, medications and diagnoses. Appendix 2 outlines the major points used for patient and parent/caregiver psychoeducation.

Medication management, including medication education, is important. In our population, 41% have a medication change during the admission and 79% are discharged on one or more psychotropic medications. The medications are usually antidepressant/antianxiety medications as well as off-label sleep medications.

Patient, caregiver/parent skill building involves topics including emotion regulation, distress tolerance, mindfulness, cognitive behavior skills, problem solving and communication, healthy lifestyles and resilience skills including sleep hygiene and occupational balance. These interventions are provided by members of the multidisciplinary staff who have been trained in these areas.

Up to 30% of the admitted youth have school-related problems. School-related interventions are initiated during the brief admission to facilitate school re-entry and include safety planning in the school setting. Interventions address coaching on how to respond to peers' questions about their absence from school, accommodations regarding tests, examinations, homework and workload, determining safe school personnel to reach out to in case of difficulty and how to do so, and designated safe places in the school environment where they could go in order to regroup. Any trauma-related issue such as bullying is also addressed.

Step 5: Determine Readiness for Discharge

Assessing resolution of suicidality is critical in determining readiness for discharge. That determination can be made on the basis of tracked information from the suicide risk assessment which was chosen in Step 3, however, clinical judgement plays an important part in deciding what may constitute a resolution of the individual's suicidality. Appropriate adaptation will need to be made in each local clinical setting, as to what constitutes the resolution of suicidality in their child and adolescent inpatient population. Other tasks in Step 5 are as indicated in the algorithm.

Return home planning is considered important and depending on the institution and psychiatric unit it may be possible to issue the patient a range of off-unit privileges or passes, including one or two overnight passes, if clinically safe. The patient and caregivers, with the assistance of a clinician, complete a safety plan for the pass and they review it upon return to the unit. This provides information about how they used the safety plan and if modifications are needed. Such an exercise helps the team in assessing readiness for discharge.

If it is determined that the patient is ready for discharge then he or she proceeds to Step 6, otherwise the treatment/intervention returns to Step 4.

Step 6: Discharge

A discharge feedback meeting and completion of discharge documentation takes place within 24 hrs prior to discharge. Team members who were involved in the care of the patient and family during the admission meet with the family and patient to provide a summary of the admission, main findings and recommendations. The interdisciplinary recommendations are documented and copies are given to the parents and patient. With consent, copies are also forwarded to the patient's family physician and community care providers.

Caring contacts are becoming an important intervention in the management of suicidality. The NAASP: Transforming Health Systems Work Group has recommended caring contacts as a new standard.[17] This involves avenues such as phone calls, texts or email as preferred by the patient and this provides messages of support and encouragement. For the inpatient setting, it involves one caring contact to be done within 48 hrs of discharge and a second contact within 7 days of discharge.

Discussion

This article describes steps taken by a mental health inpatient multidisciplinary team to develop a clinical pathway for the assessment and management of suicidality in the pediatric psychiatric inpatient unit. It met the operational definition of clinical pathways in that it is a structured multidisciplinary plan of care; used to translate guidelines

or evidence into local processes; includes details of the steps in a course of treatment or care in a plan, pathway, algorithm, or guideline protocol; and is developed with the goal of standardizing care for a specific population.[9] In our search of the literature, we did not find any clinical pathway for suicidality specifically geared to youth admitted to short-stay psychiatric inpatient units. We found clinical pathways for suicidality in emergency settings[44] which listed four suicidality pathways specifically for children and young people in the UK.[45–48] These were designed for young people in the local areas, administered at the emergency department but give context and some post discharge resources.[44]

The average length of stay on acute or short-term psychiatry inpatient units is about 7 days in adults, adolescents and children.[49,50] Therefore, the ideal brief suicide-specific psychotherapeutic intervention for the child or adolescent hospitalized on account of acute suicidal crisis would be for 3 to 9 sessions, provided over a short period of time, for example, 3 to 14 days, where the intervention is evidence based. We found one such intervention by Katz et al, which was a non-randomized study that compared Dialectical Behavior Therapy (DBT) on 31 inpatients admitted due to suicide attempts or self-injury with Treatment As Usual (TAU) group of 31.[51] The age range was 14–17 years and the gender composition was 16% male. There were 10 daily group sessions and 4 individual sessions delivered over a 14 day period. In their findings, the DBT group had significantly reduced behavioral incidents during admission when compared with the TAU. Both groups demonstrated highly significant reductions in parasuicidal behavior, depressive symptoms, and suicidal ideation at 1 year.[51] Tebbett-Mock et al conducted a retrospective observational study of the efficacy of DBT versus TAU on an acute-care adolescent inpatient unit where the mean hospitalized period was 8 days (and 11 days for the TAU group).[50] Compared to TAU the DBT group had fewer mean hours of constant observation for suicidal ideation (2.37 vs 10.55 hrs), self-injury (0.72 vs 6.19 hrs) and aggression (1.15 vs 3.89 hrs). A recent systematic review of randomized controlled trials looking at therapeutic interventions specific for suicide attempts and self-harm in adolescents found 5 studies which reported a significant effect for primary outcomes of self-harm and suicide attempts.[52] These included Integrative Cognitive Behavioral Therapy (I-CBT),[53] Developmental Group Therapy,[54] Mentalization Based Therapy for Adolescents (MBT-A),[55] Safe Alternative for Teens and Youth (SAFETY)[56] and DBT for adolescents (DBT-A).[57] The studies examined by Iyenger et al[52] all involved outpatients and the duration of treatment varied from 12 weeks to 1 year. All but Developmental Group Therapy had family involvement. The studies by Katz and Tebbett-Mock hold promise for suicide-specific interventions (if appropriately adapted) for short-stay adolescent in-patient psychiatric units. It is possible that the very short nature of pediatric psychiatric inpatient admissions together with the paucity of evidence-based suicide-specific psychotherapeutic interventions adapted for pediatric short-stay psychiatric units have been contributing factors in the limited use of clinical pathways for the management of suicidality in such settings.

A promising multi-component approach to suicide management is the CAMS Stabilization Plan. The CAMS is a structured evidence-based multipurpose suicide risk assessment, treatment planning, tracking, and outcome tool that functions as a clinical "roadmap" in the assessment and management of suicidality.[58] A modified form for inpatient suicide-specific care has been piloted in adult trials and has demonstrated safety and feasibility in an inpatient environment, acceptability by patients and staff, with significant symptom improvement on measures specific to suicidal ideation and suicidal cognition.[59] Validation in short-stay adolescent psychiatric inpatient settings is still required.

A number of challenging issues were identified during the development of the clinical pathway. There was a need for training in how A3, process mapping and standard work are properly done. The pathway development process took 18 months to complete and this required much discipline and perseverance to keep team motivation and project momentum at a high level. Over that 18 month period, changes to composition of the working group occurred due to staff reassignments and departures which affected team morale. There was also concern about leadership's ongoing support, whether the completed pathway would be implemented at all in the end.

A clinical pathway for suicidality needs to be in the context of a safe unit environment and maintaining patient safety on the inpatient unit is of paramount importance. Inpatient suicides do occur and are reported to be between 0.1% and 0.4% for all psychiatric admissions.[60] It is also estimated that 1500 suicides occur on inpatient units in the United States of America each year, with a third of them while on 15 min checks.[61] We could not find similar data for children and adolescents in inpatient psychiatric

settings. Sakinofsky (2014) has outlined possible steps to reduce suicide risk in an inpatient setting and include providing a safe environment, increased patient visibility, clinical assessment, good teamwork and communication, and clinical treatment, as well as appropriate levels of supervision.[62] Ensuring a safe environment involves removing contraband from patient areas such as dormitories, washrooms, dining rooms and all other meeting areas. The patient and parents are provided with the unit's standard Belonging List clearly stating what can and cannot be brought to the unit. Frontline staff check all items and bags that the patients and visitors bring on the unit. Some items such as headphones, chargers, hygiene products with alcohol content, glass containers, compacts with mirror, musical instruments, and DVDs, are kept by the staff in a designated area in the nursing station. The design of the unit should enhance patient visibility at all times. Assigned staff ensure their patients are frequently visible. While this is usually the responsibility of the assigned staff other staff members remain on the lookout for changes in a patient's condition and risk level. Suicide risk is assessed at least daily, and more frequently if and when the patient's condition is changing for the worse. Safety planning is done with the patient following the daily suicide risk assessment. Staffing levels are modified to ensure they are adequate to meet the supervision needs on the unit at all times. For example, no one staff has more than three assigned patients. All these steps help to make and maintain a safe unit environment.

Limitations and Future Directions

Despite following the established criteria for clinical pathway development and using Lean methodology, there are several limitations that should be discussed. First, even though we had input from patient and caregiver groups, they were not members of the working group, and therefore were not able to influence decision-making at that level. Other centers adapting the pathway to their local setting should consider including patients and caregivers as members of the working group. Second, the ability of local settings to fully or adequately implement the clinical pathway will be affected by their available resources. Third, the average length of stay of 7 to 8 days presents a number of challenges. Currently recommended treatment protocols for suicidality in the pediatric group extend beyond the average length of stay. Some important aspects of the recommended interventions such as safety planning and means reduction can be accomplished in a matter of a few days. However, if evidence based treatment protocols extend beyond a week they will be difficult to implement on short-stay units. Ongoing work is needed to find efficacious and effective short-term treatment protocols that can be used on short-stay units. Finally, while many of the clinical pathways designed for medical/physical problems have been found to have favorable outcomes, such as decreased hospital costs, shortened length of admission and improved patient outcomes, it is too early to say whether a clinical pathway for suicidality will be similarly useful. Implementation and efficacy of a clinical pathway for suicidality still need to be established through appropriate trials. Next steps include implementing the pathway, evaluating the implementation, and patient outcomes.

Conclusion

This framework was developed with the aim to standardize care for psychiatrically admitted suicidal children and adolescents. It may serve as a flexible template for use in similar settings and could be adapted to suit local realities and availability of resources.

Abbreviations

CHEO, Children's Hospital of Eastern Ontario; REB, Research and Ethics Board.

Data Sharing Statement

Data supporting results are available upon request.

Ethics Approval and Informed Consent

The CHEO Ethics Review Board indicated this was a quality improvement activity that did not require its approval. Consent from humans was not needed.

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Author contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors report no conflicts of interest for this work.

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