USE OF A SAFE KIT to Decrease Self-Injury Among Adolescent Inpatients

A Pilot Study
Stephanie Michelle Loveridge, MSN, RN-BC

ABSTRACT
A quasi-experimental pilot study was conducted via a convenience sample of 39 adolescents with a recent history of self-injury who were admitted to an inpatient psychiatric unit. It was postulated that the use of a safe kit would decrease the urge to self-injure during the participant’s hospital stay. Participants were screened using the Deliberate Self-Harm Inventory 9 and enrolled in the study after informed consent was received. Patients designed a safe kit, filling it with items that may help them refrain from self-injury when the urge was high. At the end of the hospital stay, participants completed a questionnaire evaluating the use of the safe kit in the context of other coping skills used during their admission. Sixty-two percent (n = 23) of participants used the kit as a means of coping with urges to self-injure. Sixty-one percent of those who used the kit strongly agreed that the safe kit reduced the urge to self-injure. Further research is needed with a larger sample to explore the effectiveness of a safe kit in maintaining safety on an adolescent unit. [Journal of Psychosocial Nursing and Mental Health Services, 51(9), 32-36.]
Maintaining safety with patients who self-injure is one of the most challenging responsibilities facing psychiatric staff.

Therefore, in addition to the standard inpatient treatment administered at a Virginia hospital for patients who self-injure, the use of a patient-designed and self-administered coping strategy referred to as a safe kit was investigated. The safe kit is a box personally decorated by the patient and filled with various "tools" (e.g., Play-Doh®, stress balls, temporary tattoos, small journal, stuffed animal, tactile toys) that he or she could use to cope when the urge to self-injure was high (Figure) (Moyer, 2008). This specific intervention was designed to encourage increased autonomy for the patient coping with urges to self-injure. In support of the need for this study, a search of the literature found limited empirical evidence on the use of self-administered short-term interventions in the inpatient setting. While reviewing the literature, an article was found regarding a safe kit that was used in outpatient therapy (Moyer, 2008). This study sought to apply the use of a safe kit to an inpatient clinical setting.

LITERATURE REVIEW

Self-injury is often defined as “the intentional destruction of body tissue without suicidal intent” (Klonsky & Muehlenkamp, 2007, p. 1045). Self-injury is referred to in the literature as non-suicidal self-injury, self-mutilation, deliberate self-harm, self-injurious behavior (SIB), para-suicide, self-abuse, self-harm, and self-inflicted violence. For the purpose of this study, the author used SIB to describe self-injury. Self-injury is most often associated with depression and anxiety disorders and, to a smaller degree, eating disorders and substance abuse. It is thought that anxiety may be more closely related to SIB than depression because of the emotional arousal or pressure that often prompts self-injury (Klonsky & Muehlenkamp, 2007).

Approximately 15% of adolescents in one study reported at least one incidence of SIB (Klonsky & Muehlenkamp, 2007). Higher rates appeared in those receiving mental health treatment: 20% of adult psychiatric patients and 40% to 80% of adolescent psychiatric patients (Klonsky & Muehlenkamp, 2007). Many adolescents who self-injure become hospitalized. In one study of hospitalized adolescents, 74% of those who engaged in SIB were admitted for suicidal ideation. The age of onset for SIB is approximately 13 or 14, and the most common form of SIB is cutting, used by more than 70% of those who self-injure. Although some studies indicate that SIB is more common in girls than boys, others indicate there are no consistent gender differences (Peterson, Freedenthal, Sheldon, & Andersen, 2008). The most common form of SIB in those who self-injure is cutting/scratching (>70%), with the arms being the preferred location (Klonsky & Muehlenkamp, 2007).

The functions of self-injury have received increased attention over the past few years, and more research has been conducted regarding motivations for self-injury (Klonsky & Muehlenkamp, 2007). The most common reason adolescents self-injure is affect regulation (i.e., to distract themselves from emotional pain) (Swannell, Martin, Scott, Gibbons, & Gifford, 2008) or to alleviate intense, overwhelming negative emotions (Klonsky & Muehlenkamp, 2007). Second to affect regulation, self-punishment is the most prevalent reason. Other reasons include to elicit affection from a loved one or authority figure, interrupt dissociations, resist urges to attempt suicide, and experience a thrill (Klonsky & Muehlenkamp, 2007).

In adults, the most researched treatment in reducing self-harm is dialectical behavioral therapy (Peterson et al., 2008). Self-injury in adolescence has only recently been recognized as a commonly occurring phenomenon (Peterson et al., 2008). The most recent Cochrane database systematic review indicates a continued lack of evidence to make firm recommendations for treating self-injurious adolescents. More randomized controlled trials involving large samples need to be conducted to detect clinically meaningful differences in treatment (Askew & Byrne, 2009).

Self-injury on acute psychiatric units has been found to be a source of stress for mental health professionals. The challenge for staff is keeping the self-destructive patient safe while simultaneously helping him or her develop self-control. To properly progress
through their recovery, patients need the freedom to become responsible for their actions. This involves staff selectively allowing this freedom; yet, the freedom can cause increased staff anxiety. If the patient uses the freedom to injure him or herself, staff fear being held responsible by administration, in addition to the guilty feeling that accompanies such an injury. If the staff maintain excessive external control, however, the client will not progress (Duperouzel & Fish, 2007).

The literature reveals data on the characteristics, origin, and therapy of patients with SIB, especially with adults. Most of the therapy received by adults and adolescents occurs on an outpatient basis, establishing a therapeutic alliance over a longer term. However, a gap exists in the literature when it comes to specific short-term interventions to reduce self-injury in inpatient adolescents.

Discontinuing SIB is a process that requires time. Just as an adolescent chooses SIB as a coping skill, he or she also must find an alternative coping skill that is equally effective. Johnson and Johnson’s (1997) experiential learning theory states that learning is more effective when it is an active versus a passive process (i.e., patients will believe more in knowledge they have discovered themselves than in knowledge presented by others). During an inpatient admission, adolescents are taught about different coping strategies that can be implemented when the urge to self-injure is increased. The use of a safe kit is a visual reminder of a tangible coping strategy that the patient can choose when in a heightened emotional state.

METHOD
Sample and Participant Selection
The setting for this pilot study was an inpatient child and adolescent psychiatric unit at a Virginia hospital with a convenience sample of 50 participants; however, only 39 participants completed the entire study within its parameters. The study was conducted between July 1, 2010, and April 30, 2011, until a sample size of 50 was reached and/or supplies were exhausted. Inclusion criteria were girl or boy patients ages 13 to 18 with a presence or history of SIB within the past 6 months. Exclusion criteria were patients admitted for suicide attempt with no other criteria for SIB, masturbation that led to self-injury, patients readmitted during the study time who previously participated in the study, and a parent/guardian who could not be reached within the first 24 hours of admission. The study was approved by the Institutional Review Board. Patients had the right to refuse participation in the study or drop out at any time, and no compensation was awarded for study participation.

Self-Injury Protocols
All patients admitted to the child/adolescent psychiatric unit are routinely screened for SIB. Patients who have a history of self-injury have a body map completed on admission; pencils are strictly monitored and plastic silverware is counted after meal trays are returned. Should a patient self-injure while on the unit, crayons are provided and the meal trays contain only finger foods. Daily body maps are instituted and staffing is adjusted to provide increased monitoring and emotional processing for the self-injuring patient. The researcher hypothesized that the safe kit could be a tool to prevent this escalation of care.
Design
A quasi-experimental design was used to collect baseline data from all participants who met the inclusion criteria. The study design also accommodated collection of post-intervention data.

Procedure
Prior to the start of the study, all RNs and mental health counselors were taught the protocol of the study, protection of human subjects, inclusion criteria, use of data collection tools, and use of the safe kit. Every patient who was admitted during the time frame and who met inclusion criteria received education concerning the study; both parent/guardian and patient signed informed consent. Following informed consent, patients were administered the Deliberate Self-Harm Inventory (DSHI-9) short 9-item questionnaire (Lundh, Karim, & Quilisch, 2007) to determine whether the patient reported SIB within the past 6 months. Patients designed a safe kit within the first 24 hours of admission, decorating the box with stickers and markers and filling it with certain objects (Figure). The items were purchased by the researcher (S.M.L.) with $1,000 from a research grant. Items included in the kit were stress balls, a small journal to record feelings, Play-Doh®, small stuffed animals, temporary tattoos, bubbles, and tactile toys. Patients signed a safety agreement, stating they would be safe with the items in the kit; they were told to keep the kit on their desk in their room and to use the items in the kit when they felt the urge to self-injure. Upon discharge, the patient completed the author-developed Adolescent Safe Kit Usage Questionnaire. If the patient had an urge to self-injure during the hospital stay, they answered the questions regarding the safe kit and its usage, as well as other coping skills utilized. They could take their safe kit home at discharge to use as a coping strategy.

Instruments Used
Two instruments were used in this pilot study. The DSHI-9 (Lundh et al., 2007) was administered to all patients meeting inclusion criteria to screen for self-injury within the previous 6 months. Permission to use the tool was granted by the developer, Lars Gunner Lundh. The DSHI-9 has good internal consistency and test-retest reliability. Cronbach’s alpha coefficient of a recent study was 0.90 (L.G. Lundh, personal communication, February 5, 2010). The second tool was the Adolescent Safe Kit Usage Questionnaire, a tool developed for this study to obtain basic demographic information and collect data on the use of the safe kit and self-injury. This tool was reviewed by a child and adolescent psychiatrist and examined after the first 10 clients for content validity by two nurse researchers.

Data Analysis
Data analysis consisted of descriptive statistics (means, standard deviations, and percentages). T tests for independent samples were analyzed to compare the means of the responses. A statistician conducted data analysis and interpreted findings using SPSS version 20.0.

RESULTS
Although the original sample size was 50, only 39 participants (28 girls and 11 boys, age range = 13 to 18) completed the study within its parameters. Thirty-four participants were Caucasian, 1 was African American, 1 was Hispanic, and 3 reported as Other. Of the 39 participants, 97% (n = 38) used cutting as the most frequent mode of self-injury. Although 39 participants received a kit, only 23 patients had the urge to self-injure during the hospital stay. If the patient constructed a kit but did not have the urge to self-injure, no further questions were asked regarding use of the safe kit.

Of the 23 patients who had urges, all tried using the kit. Of those, 69.5% (n = 16) used it frequently (5 or more times) during their stay (Table 1). Of those who used the kit, tactile items were used most often (Play-Doh®, hedgehog balls, and stress balls). Other items not as frequently used were stuffed animals, tattoos, and bubbles. When asked if the use of the safe kit decreased the urge to self-injure, 60.9% (n = 14) strongly agreed that using the kit decreased the urge (Table 2). The data analysis did not reveal a correlation between DSHI-9 results regarding method/frequency of self-harm and use/effectiveness of the safe kit.

Coping skills in addition to the use of the safe kit were examined, such as talking to peers, staff, and family. Twenty-six percent (n = 6) of participants who had the urge to self-injure during the hospital stay frequently (more than 5 times) talked to staff as a means of coping, 39% (n = 9) frequently talked to peers, and 35% (n = 8) frequently talked to family. It is noteworthy to mention that 47.8% (n = 11) of the participants did self-injure at least once, even though they had other coping skills, including the safe kit, at their disposal. When asked whether they would use the safe kit at home to deal with urges to self-harm, 69.5% (n = 16) said they would use it very often or always (Table 3).
KEYPOINTS

1. The most common function of adolescent self-injury is to cope with overwhelming emotional pain.
2. Self-injury on acute psychiatric units is a source of stress for mental health professionals.
3. Discontinuing self-injurious behavior is a process that requires time and the utilization of various coping skills. The safe kit could be used as a tool in the recovery process of adolescents who self-injure.

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Limitations
The original sample size was 50; however, only 39 participants completed the entire study within its parameters, which was a considerably smaller number than expected. Of those who received a safe kit, only 23 had urges to self-injure, used the safe kit, and could give an objective evaluation of its usefulness. The smaller sample size was due to inconsistency in obtaining informed consent and starting the kit development within 24 hours; in addition, the post-intervention questionnaire was not being consistently administered to patients at discharge. Although this process was rectified, the results of these omissions reduced the sample size. A budgetary limitation for the cost of the supplies was also a contributing factor.

DISCUSSION
Self-injury continues to be a problem among adolescents, functioning largely as a means to deal with intense emotions. Evidence-based treatment such as dialectical-behavioral therapy is used consistently in outpatient care; however, fewer studies have been performed that look at adolescent self-injury in an acute hospitalization. In this pilot study, the safe kit was postulated to be a coping skill to help decrease urges to self-injure while on an inpatient unit. Although adding to the body of knowledge on adolescent self-injury, further research on the safe kit use is recommended to determine its effectiveness in a hospital setting.

NURSING IMPLICATIONS
Psychiatric nurses tend to be unconventional, imaginative, resourceful individuals; they should continue to look at their patients’ struggles with a creative eye, helping them find innovative methods, such as the safe kit, to cope with stress. What are some other ways nurses can “think outside the box” to better help their patients?

REFERENCES

Ms. Loveridge is Unit Manager, Child and Adolescent Psychiatric Unit, Virginia Baptist Hospital, Lynchburg, Virginia.

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Address correspondence to Stephanie Michelle Loveridge, MSN, RN-BC, Unit Manager, Child and Adolescent Psychiatric Unit, Virginia Baptist Hospital, Krise-6, 3300 Rivermont Avenue, Lynchburg, VA 24503; e-mail: Stephanie.loveridge@centrahealth.com.

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