

COGNITIVE AND FUNCTIONAL CHARACTERISTICS OF ADOLESCENTS WHO
COMMIT NON-SUICIDAL SELF-INJURY

A Thesis by

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Education, with a major in Special Education.

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ABSTRACT

This was a qualitative study that used a phenomenological approach to describe the conscious experiences of adolescents of varying cognitive abilities who have engaged in non-suicidal self-injurious behavior. Its purpose was to identify and analyze patterns or trends, including similarities and dissimilarities, among a sample of adolescents for whom such behavior has been a factor in their early development. This study reports on a sample of adolescents who attend a special day school in central Kansas for students with severe behavioral disorders and who have engaged in deliberate non-suicidal self-injury. Data were gathered through field notes taken during observation of student participants in the school setting, interviews with various stakeholders, and document review of participant/student IEP records. It was found that among students of average ability, cognitively distorted thought-processing and patterns of pervasive invalidating environmental cues form a combination of experiences that are apt to produce an atmosphere of emotional dysregulation conducive to the likelihood of adolescent self-injury. It was also found that among young people with severe intellectual disabilities, the tendency to self-injure is highly communicative in nature and less of a process than a need for immediate gratification or changes in environment. In addition, these needs are often of physiological bearing, more so than among the population without intellectual disability. Limitations of the current study were discussed, as well as needs for continuing research. Finally, best practice recommendations for school-based personnel working with self-injurious adolescents were addressed.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
II. LITERATURE REVIEW	4
Enquiry	4
Motivations and Functionality of NSSI	7
Conclusion	12
III. METHODOLOGY	14
Participants	15
Setting and Demographics	16
Procedures	17
Step-by-Step Procedures	18
Student Contextual Factors	19
Analysis	21
IV. RESULTS	23
IEP Review	23
Functional Behavior Assessment (FBA)	23
Parent Interviews	29
Professional Interviews	30
Summary	35
Data Analysis/Results per Research Questions	36
V. DISCUSSION	41
Cognitive Susceptibility	41
Functional Characteristics	43
Affect Regulation	44
Limitations and Future Research	45
Recommendations	47
Conclusion	49
REFERENCES	52
APPENDIXES	59
A. Functional Behavior Assessment	60
B. Interview Questions	83
C. Script for Preliminary Statement Prior to Parental Interviews	87

CHAPTER I

INTRODUCTION

In the United States and elsewhere, non-suicidal self-injury (NSSI) among adolescents has become an increasingly frequent behavioral transpiration of underlying distress factors in the lives of many young people. The behavior has been a topic studied in great detail over recent decades. Many studies have considered the behavioral functions of self-injury, treatment and therapy options, and the theoretical and diagnostic importance of the various forms of the behavior, but little attention has been focused on the correlate of cognitive ability that may have some influence among the variables in the occurrence of the phenomena.

Studies have shown that NSSI behavior occurs mostly in Caucasian and female groups (Roberts-Dobie & Donatelle, 2007; Ross & Heath, 2002) and that such behavior often has, at least, an indirect relation to childhood post-traumatic stress or histories of physical abuse, sexual abuse, and/or depression (Shenk, Noll, & Cassarly, 2010; Weismoore & Esposito-Smythers, 2010). Implicit in these considerations has been the notion that there are causal factors that explain, at least to some degree, the increase of underlying distress in their lives and that the degree of causality is significant. For example, it has commonly been considered in many studies that being a victim of childhood abuse is among the experiences likely to contribute to the emotional state in which self-injury becomes a viable option for the release of anxiety or distress (Weismoore, et al., 2010). Among adolescents who commit self-injury, 56% of them seek help and assistance for the behavior (Heath, Baxter, Toste, & McLouth, 2010) in some manner, often beginning with friends. Of this percentage counseled by professionals, 8% have been found to have been victims of childhood abuse (Klonsky & Moyer, 2008), a number that, while an increase from the 6% of the general population of adolescents who have experienced

abuse as children (Roberts-Dobie et al., 2007), is nonetheless, by consensus of the current literature, not a clear mandate that histories of child abuse are clearly a precursor for engaging in NSSI (Klonsky et al., 2008).

Given only those statistics, it is possible, then, to draw some inferences. For one thing, the reasons that establish the relationship between psychopathology and NSSI are not well understood across the broad spectrum of adolescent deliberate self-harm (Nock, Wedig, Holmberg, & Hooley, 2008). However, it is safe to assume that identifying factors which place children at risk for such behaviors and which are critical to the emotional dysregulation that appears to be characteristic of the whole of aggregated experience of NSSI differ at least in some element of their composition, not only from individual to individual, but in special education classifications of individuals to other classifications (Shenk et al., 2010).

For another, the degree to which childhood histories (such as abuse trauma) contribute to a prevalence of the behavior as an important determining factor in early development – manifesting itself in adolescence – remains questionable (Einfeld & Aman, 1995; Nock et al., 2008). The specific underlying tenet of the manifestation is that it is either communicative in intent or that it is serving as a coping mechanism or both (Peek, O'Brien Lightner, Murrell & Howe-Martin, 2010).

Few research studies have been found that addressed whether motivations, methods, and functions associated with NSSI behaviors differ in correlation with varying aspects of cognitive ability (i.e., perception, thinking, reasoning, and memory) (Witwer & Lecavalier, 2010). In order to gain understanding of the extent to which disparities in the properly evaluated levels of ability within the domain of cognition provide (or do not provide) recognizable particular

circumstances in which the behavior is promoted, this study seeks insight into these research questions:

1. (a) What behaviors are associated with episodes of non-suicidal self-injury among students whose ability falls within average ranges of cognitive ability?
(b) What behaviors are associated with episodes of NSSI among students with severe intellectual disabilities?
2. What methods do adolescents within these two populations use to self-injure?
3. What functions do engaging in such behavior serve among these two groups and are there similarities or differences based on cognitive ability?

CHAPTER II

LITERATURE REVIEW

Many adolescents of varying cognitive abilities seem compelled to engage in non-suicidal self-injurious behavior, and, while some form of predisposition may exist, it is likely that varying levels of intellectual comprehension play at least some role in the functionality and methodology associated with self-harming actions. New conceptualizations of the continuum of self-injurious behaviors continue to emerge and provide an ever-developing base of information regarding the prevalence, classifications, and signs of self-injury. Among these classifications is the growing acceptance that varying levels of cognitive function may play some role in the etiology of self-harming actions.

Enquiry

Non-suicidal self-injury can be described as the “socially unacceptable” (Whitlock, Eells, Cummings, & Purington, 2009) intentional harm caused to oneself to the point of producing tissue damage without fatal intention (Pirani & Carmichael, 2009). The social distinction is significant in order to exclude widely accepted practices, such as body piercing and tattooing. It is believed that, in the United States, as many as 4% of the general population (Chibarro, 2007) may engage in NSSI behavior. It is further believed, however, that that number rises dramatically among adolescents (White-Kress, Drouhard, & Costin, 2006). Among all populations, it is generally accepted that motivations for the behavior lie in the human necessity to deal with overpowering senses of anxiety and distress (Ross & Heath, 2002).

While non-suicidal self-injurious behavior has been a source of much study and research since 1935 (Kamen, 2009), it was not until the 1970's that NSSI (also frequently termed

deliberate self-harm [DSH], self-injurious behavior [SIB], repetitive self-mutilation [RSM], or pathological self-mutilation [PSM]) was widely accepted as a medical and/or psychological complex separate from suicidal ideation or as prelude to suicide (Carr, 1977). The approaches to research of the topic have been almost as widely disparate as the conclusions, lending to the notion that much of the pathology of the behavior (admittedly a study in its infancy) remains mysterious. Since that era, however, many broad conclusions have become widely accepted, some to the point of now seeming conspicuously self-evident. Among these is the understanding that NSSI among adolescents most frequently occurs as a reaction to, or at least as an indirect result of, unusual or excessive degrees of distress, that severe depression can increase episodes of the behavior, that the prevalence of self-injury has increased in recent years, and that there is a spectrum (in various terminologies) delineating the nature of NSSI from mild to critical and that the latter is not necessarily closer in proximity to suicidality (Favazza & Rosenthal, 1993; Gratz, 2001).

As the occurrence of NSSI has increased, so has the literature available on the topic. Numbers as variant as 2.8% (4.3% female, 1.5% male) (Hargus, Hawton, & Rodham, 2009) to 23% of adolescents (Ballard, Bosk, & Pao, 2010) - and even 39% in clinical settings (Nock & Prinstein, 2004) - have engaged in the activity to some degree, with most research numbers falling moderately in between. This inconsistency is probably best explained by the following factors. First, the subject is a matter of relatively new study. Therefore, exact terms, with clearly defined distinctions and levels of significance are still being refined. Further, the personal nature of the topic has made it necessary to ensure a high level of protective measures when conducting the research (Alfonso & Dedrick, 2010).

Methods used to investigate the behavior usually have been in the form of self-report questionnaires or direct interviews often conducted in schools or clinics, wherein the evidence collected may often be susceptible to distortion from the time of the incident, thereby possibly lessening the effect of any temporal data. This lends heavily to the question of whether the self-reporting nature of the study can give way to personal interpretations and perspectives. Among adolescents with significant cognitive impairments, professionals have used observational data, in school and clinical settings, as well as reporting by parents or guardians, to collect information on NSSI behaviors (Guerry & Prinstein, 2010).

The clinical research is continually being refined. While it was once speculated that NSSI was a forewarning of sorts for suicidal ideation, different fields of research now indicate that most adolescents who engage in NSSI may have been placed at high risk for such behavior due to the presence of a precipitating traumatic event, response to emotional duress, or by the maladaptation and dysregulation of the physiological neurotransmissions which process distress or pain (Jacobsen & Gould, 2007; Klonsky, 2007; Lloyd-Richardson, Perrine, Dierker, & Kelly, 2007). Further, while the prevailing wisdom has long agreed that family dynamics are an integral piece of the NSSI puzzle, it has more lately been the consideration that non-familial social characteristics may play just as compelling a role in influencing adolescent NSSI (Nock & Prinstein, 2005). Also, granted the evidence linking interpersonal traumas and poor psychophysiological outcomes (such as NSSI), it is likely not a direct relationship (Weismore & Esposito-Smythers, 2010).

Another school of thought links the puzzle of family dynamics and interpersonal distress with biological conditioning. McGowan et al. (2009) found that at least some individuals may be predisposed to behavioral risks, including NSSI, due to altered genetic patterns involving the

inter-working of family histories of either healthful affection and support, or abuse and neglect, and thereby the biologic promotion or degradation of hormonal corticoid receptors, translating to the level of ability to control and self-manage periods of heightened stress. In the case of the former, the genetic pattern preordains a lifestyle epigenetically, with protective factors forming regulatory tasks when needed, and, in the latter, conversely, the overcompensation of risk factors.

Motivations and Functionality of NSSI

For adolescents who possess the cognitive ability to process the world around them with a basis in awareness, reasoning, and judgment, it is clear that engaging in such behavior provides some function when trying to cope with a psychosocial deleterious life-event (Kamen, 2009; Rathus & Miller, 2002). The parameters, as well as the intricacies of those functions, vary as greatly as the methods by which adolescents choose, or are compelled, to self-injure. It has been routinely suggested that emotional dysregulation in some form figures prominently in the symptomology surrounding events of adolescent self-destruction and that NSSI is not likely to occur without the comorbidity of multiple psychiatric conditions (Arron, Oliver, Moss, Berg, & Burbidge, 2011).

An individual's level of cognitive ability may be an area of comorbidity of conditions that have at least some role. However, concomitant pathologies may or may not be related, so the circumstance of their mere existence within an individual's developmental process does not in itself satisfactorily show a relative interaction. Though lowered self-awareness, poor self-perception, and communicative and social deficits can be a matter of anxiety for an individual with disabilities, no research could be located that supports that there exists a significant

interaction. Heightened distress occurs for a myriad of reasons through all levels of adolescent development, for those with or without disability, but does not always result in NSSI behavior.

While it is believed that the full range of psychopathology occurs in children with severe/profound intellectual disabilities, traditional systems of classification are of doubtful validity, and more extensive outcome-based processes of measurement should be considered (Einfeld & Aman, 1995). As cognitive levels increase toward the average range of ability, mental disorders tend to resemble those seen in the general population (Stark, Menolascino, Albarelli, & Gray, 1988).

It has been found that children identified as having intellectual disabilities and other significant developmental disabilities are particularly at risk for developing and maintaining some form of self-injurious behavior over the course of their lifetimes (Roberts-Dobie, et al., 2007) and that the severity of intellectual disability is inversely related to a prevalence of NSSI (i.e., lowered cognitive abilities, higher predisposal to self-injury) (Forster, Gray, Taffe, Einfeld, & Tonge, 2011). There has been some speculation (Duncan, Matson, Bamburg, Cherry, & Buckley, 1999; Hagopian, Kuhn, & Strother, 2009) that deficits in social skills, being not uncommon among individuals with severe intellectual disabilities, may have at least some role in promoting problem behavior, including NSSI, and that intervention and treatment of social skill deficits may effectively demonstrate the potential to decrease the likelihood for these individuals to feel the need to resort to self-injurious behaviors when facing untoward stress or anxiety (McConnell, 2002).

However, it can also be assumed that individuals with more severe intellectual disabilities are less likely to seek access to or respond to available resources for therapy and/or treatment of their behaviors (Heath et al., 2010), therefore limiting any treatment outcome efficacy. Further, while

the diversity among populations which engage in NSSI behaviors tends to suggest that informed and thorough response plans to NSSI may in fact discern that social skill instruction and practice can effectively result in some decrease in episodes of the behavior (Kibler, 2009), it can also be considered that other issues associated with the behavior may provide a wider range of more appropriate service protocols for intervention (Ross, Heath, & Toste, 2009). NSSI frequently coexists with other behavioral irregularities (e.g., intellectual disability, depression, substance abuse, eating disorders), and the common features of those relationships present for many individuals also serve as strategies for avenues of treatment.

Etiologically, while acknowledging this likely circumstance, many current studies (e.g., Klonsky & Moyer, 2008) all but dismiss aspects of this coeval as an evidentiary claim of any motivational derivation. As expanded studies continue to explore the factors of predisposition and/or environment involved, theories of central roles for causality evolve, and, currently, as Klonsky & Moyer (2008) further point out, such correlations are, at best, only dubiously connected. Therefore, the specific natures of these risks – as they relate to causal mechanisms, whether biological or behavioral - are unknown (Symons, Sperry, Dropik, & Bodfish, 2005).

Among the current literature, many studies have enumerated the various methodologies by which adolescents of average (or close to average) cognitive levels (based on intelligence quotients) commit NSSI (Ballard et al., 2010; Rojahn, Matson, Lott, Esbensen, & Smalls, 2001; Symons, et al., 2005). These include, but are not limited to, various forms of self-mutilation (including scratching/cutting, burning, skin-picking [or any interference with wound-healing], eye-gouging, nail-pulling, and self-biting) (Klonsky, 2009), hair-pulling, head-banging (and other self-hitting and self-pinching), self-engineered choking, and self-poisoning (Nock & Prinstien, 2005). Behaviors associated with substance abuse or eating disorders (e.g., anorexia,

bulimia, pica) are generally not considered as deliberate self-harm in the manner that is usually seen as a symptom of an underlying disorder because even resultant tissue damage or other harmful affliction is ordinarily unintentional (Klonsky & Olino, 2008). Many of these behaviors so enumerated are also frequently exhibited by adolescents evaluated as having more severe cognitive impairments, most ostensibly those which require a less complex contrivance for management (Dominick, Davis, Lainhart, Tager-Flusberg, & Folstein, 2007) not entirely dependent on the availability of self-harming tools or the motor abilities to use them. Wound-picking, self-hitting, head-banging, self-biting, eye-gouging, and hair-pulling are the most common methods of NSSI among adolescents with more severe levels of intellectual disability (Sigafos, Penned, & Versluis, 1996).

It is obvious that the reasons that establish the relationship between psychopathology and NSSI are not well understood across the broad spectrum of adolescent deliberate self-harm (Nock, et al., 2008). Herman (1992) suggested (and further corroborated by Christenson, Ringdahl, Bosch, Falcomata, Luke, & Andelman, 2009; Horrigan & Barnhill, 1997) one possible correlation among these variables: That stress disorders can encompass not only dysregulation of emotions but also bodily dysregulation of more physiological bearing in which the dissociation between messages from the body and expression of emotional distress form a process of conversion of transformational data from psychic events to behavioral symptoms.

This integrative conversion may appear to support at least the general conception of biologic predisposal, as found by McGowan et al. (2009), even excluding the organic paradigm; however, there are clear discrepancies, as the somatic lingering effects of complex post-traumatic stress described by Herman (1992) were more in the domain of executive self-monitoring and its biomedical connection to a damaged psyche than the genetic wholeness of the human machinery

that regulates and assigns stress responses. Whatever the relationship between physiological and behavioral determinants in stimulating NSSI, and whether they exist in substantial confluence, it may have little bearing on influencing training for enhanced coping skills and minimizing the negative effects of stressful events. The strengths of functional assessment and effective behavioral interventions for NSSI could be in the identification of environmental and social setting events rather than the connection or disconnection of physiology and corresponding behavior (Carr & Sidener, 2002).

It is clear that, given the disparity of the conclusions reached among the prevalent studies, much regarding NSSI behavior remains shrouded in obscurity and begs exposure to further investigation. Future avenues of exploration should advance self-awareness in identifying areas of individuals' more prominent dysfunction, while promoting methods of internalizing esteem to build on corresponding positive behaviors. This study endeavored to contribute a step along those paths by reporting findings from data gathered from functional behavioral assessment among a small population of adolescents of varying cognitive levels at a special day school for students with significant behavior disorders and who are known to have engaged in self-injury.

In that schools are arguably the primary institution for providing young people with the means of acquiring self-efficacy (Roberts-Dobie & Donatelle, 2007), school-based staff are in the position of identifying students who may be at risk for the behavior, developing intervention strategies, providing guidance and the teaching of appropriate coping skills, and serving as liaison for making connections to community mental health providers (Lieberman, 2004). If it is inherent in understanding the pathology of the behavior that young people who engage in non-suicidal self-injury do so, at least to some extent, out of a need for self-control or security when attempting to bring order to damaging events in their lives, then it is incumbent upon the school

to offer caring support and safe, viable options to students who may be struggling with self-destructive impulses.

Conclusion

Traversing the field of NSSI remains an arduous journey. However constructed among the associations between NSSI behavior and psychological, physiological, and cognitive/intellectual correlates, it is entirely discernible from the current literature that there is a significant interaction at work in the manner in which events induce self-injury among individuals considered at risk for skill achievement failure, that individuals of varying abilities self-injure by varying methods, and that the function of NSSI is to serve as a coping mechanism for those who so engage in the behavior but that there is at least some diversity among those functions.

It is the author's consideration that conducting new research in a school setting in which the prevalence of the behavior among the student population is such that it presents itself on a regular basis, is important. Therefore, since it is a major area of comportment for some students, and an area of, at least, distraction or distress for other students, and providing assessment in this setting, it may be beneficial to the learning experience of all the students. A phenomenological approach to this research to describe the conscious experiences of students who exhibit self-injurious behaviors and gain insight into the patterns or trends, as well as distinctions, intrinsic to the motivations and functions accompanying these students' particular experiences should take into consideration that such individual assessments of NSSI incidents should occur as closely as possible to the incident(s) to heighten and strengthen the trustworthiness of the data collected. Furthering understanding among school personnel of the precursors, circumstances, and motivations involved in the behavior could also have the benefit of gaining support for additional teaching of appropriate coping skills, problem-solving, and relaxation techniques. However,

extant in this process is the belief that research of the subject should be collaborative with clinicians working with self-injurious adolescents as a more effective method of evaluation in the occurrence of NSSI phenomena. An ongoing working relationship between school-based staff and supportive personnel from outside agencies working with the students is advantageous for all concerned.

CHAPTER III

METHODOLOGY

This study was designed to investigate the corresponding aspects, as well as the dissimilarities, that varying cognitive abilities have among adolescents who exhibit non-suicidal self-injurious behavior (NSSI). All potential participants in the study were associated with a special day school that provides special education services.

This research study used qualitative methodology. As such, it did not impose or engage in any behavioral interventions not already designated in students' Individual Education Plans (IEPs). The phenomenological approach was used to allow the research to focus on the differences and commonalities among the lived experiences of individuals who have engaged in non-suicidal self-injurious behavior.

Methodological triangulation of data was conducted (a) through field notes taken during observation of student participants in the school setting, (b) interviews with various stakeholders, including the professionals who work with the students at the special day school, and the parents of the students, and (c) document review of participant/student IEP records. Data were analyzed to identify distinct code/themes that emerge. The outcome of the analysis resulted in a theoretical statement validated by examples of the data and which responds to the research questions. Next, the researcher synthesized the themes into a description of the experiences of the individuals and constructed a composite description of the meanings. Trustworthiness was established through researcher agreement of codes/themes and derived meaning (i.e., primary and co-researcher), member checks of participants to verify accuracy of data meaning, and a documented data trail.

Participants

Student participants in the study were obtained from a special day school in central Kansas for students with significant behavior disorders. They were selected to participate on the basis of having been known to engage in episodes of self-injurious behavior while at school. Three students in a day school for students whose behavioral challenges include severe cognitive impairments (designated Program One) were selected for inclusion in the study. Four students in a day school for students with severe emotional disturbance (designated Program Two) were also included as participants. The division among the two student groups is due to their levels of cognitive ability. These seven students' engagement in episodes of self-injurious behavior has been documented as having been manifested in many of the various forms and methods typically associated with NSSI.

Participation from three students in Program One was requested and consents were received from the parents/legal guardians of two of the students. These students included one boy (aged 12) and one girl (age 20). The student participant over 18 years of age was, at the time of the study, receiving special education services and was the ward of an established guardianship due to the nature and severity of her disabilities. Parents of students in Program Two proposed for participation in this study universally refused consent.

A second participant group was comprised of parents of these students. They were asked to consent to an interview conducted by the researcher regarding their child's behavior and experiences of engaging in self-injury. It was the intention of the researcher to conduct parent interviews with the seven parents who identify themselves as the primary caregiver in their respective homes. A total of four participants (two students, two parents) were included as these were the only ones from whom consents were received for participation in the study.

A third group of participants consisted of six professionals providing services to the target participants, either in the school setting or through a mental health agency also providing services (Program One: school psychologist and case manager; Program Two: school psychologist, lead teacher, case manager, and school social worker serving both programs). All six of the professional participants were female, Caucasian, and between the ages of 30 and 60. These participants ranged in years of service to their professions from 3 to 30 years. Consent was obtained from each of these participants.

Setting and Demographics

The day school that the student target participants attended at the time of the study is located in central Kansas in a small rural community of about 2000 residents and in a county that has a population of approximately 13, 400. The day school serves all school districts in the county. The town is comprised almost entirely of individuals of European descent, so only about 60 of the town's residents are of minority ethnicity, those 60 being split pretty evenly between Hispanic and American Indian heritage. Less than 1% of residents are African American.

The day school programs are housed in a newly renovated building that also serves as the administrative offices for the county Special Education Cooperative (serving about 530 students and preschoolers). Program One (at the time of the study) had one teacher and five para-educators serving six students (one of whom receives homebound services). Four teachers, seven para-educators, a school psychologist, and a social worker were serving approximately 17 students in Program Two.

Procedures

The descriptive method of research was used for this study. Creswell and Maietta (2002) stated that the descriptive method is to collect information about current existing conditions. In order to establish a foundation for field data collection, Individual Education Plans of student participants were reviewed to garner background information regarding biographical, school, and behavioral characteristics. Prior to data collection, certain procedural safeguards were put in place.

Written consents were requested from all participants in each stakeholder group: students, parents/guardians of students, and professionals who work with the students.

Written consent requested from participants included the following information prior to the acceptance of their consent for participation:

1. Purpose of the research along with a description of the procedures and the length of time it would take to complete the study;
2. A description of any physical or psychological risks or discomforts the participant could encounter;
3. A description of any benefits the participant or others could expect from the research;
4. A description of any alternative procedure or treatment that could prove advantageous to the participant;
5. A statement of the extent to which the results would be kept confidential;
6. Names and contact numbers of people the participant could contact with questions about the study or the research participant's rights;
7. A statement indicating that participation was voluntary and that the participant could withdraw and refuse to participate at any time with no negative consequences; and
8. A statement that there was no monetary payment for participation.

Step-by-Step Procedures

Step 1. Reviews were conducted by the researcher of the Individual Education Plans (IEPs) for two student participants who attended Program One. Information relevant to the study was gathered pertaining to student characteristics, including (a) present levels of social and/or emotional strengths and concerns, (b) communicative skills, and (c) any identified challenging behaviors.

Step 2. Functional behavior assessment (FBA) was conducted for 12 days over a 4-week period regarding two participants in Program One. Functional behavior assessment is a procedure designed to identify the purposes of specific behavior by examining significant social, cognitive, and/or environmental factors associated with the occurrence of the behavior (Starin, 2011). In this study, FBA was used to identify these factors in association with self-injurious behavior. (Appendix A provides FBA field notes.)

Step 3. Parent participant interviews were conducted by the researcher. Answers were recorded through research notes, and interviews did not exceed one hour. Parent participants were given the option of writing their responses to questions. Parent interviews were conducted by appointment at a place and convenience of the parents.

Step 4. Professional participant interviews (with school psychologists, social worker, Program Two lead teacher, and two case managers) were conducted at the county special education cooperative, which also houses the two programs. All responses were recorded in writing by the researcher.

Interview questions were designed in a manner intended to be non-threatening and were open-ended to promote objectivity during the interview and to allow meaningful participant expression regarding their knowledge, experiences, and feelings without demonstrating any

appearance of suggestion or presumption on the part of the researcher. Beginning research questions guided the interviews, with follow-up questions based on the responses to initial questions. (Appendix B provides beginning interview questions.)

All completed questionnaires and interview notes were signed by the researcher and the respondent and remained solely in possession of the researcher. All interviews were conducted in a setting that provided maximum privacy and minimal distraction for the respondent. The nature of the research, the purpose for the interview, and how it related to the overall research was clearly articulated to the interviewee beyond that explained in the consent form. (Appendix C provides the script for this explanation.) Written permission was obtained from participants for the use of any direct quotes. When terms of confidentiality were explained to participants, it was noted, along with information regarding who would have access to their responses and how the data were to be analyzed, that in some circumstances, courts may be able to obtain information if so mandated. Pseudonyms were used for all participants, and this was articulated both in consent forms and verbally to potential participants.

All data collected are stored under lock and key, maintained by the researcher, and it will be destroyed 3 years following the conclusion of the study.

Student Contextual Factors

Over the past 70 years, self-cutting and other forms of self-injurious behaviors have been studied among various populations, including adolescent inpatients, individuals with intellectual disabilities, and people with psychoses or personality disorders. However, most research including adolescent populations has been conducted in clinical settings rather than schools (Bain & Fedynich, 2011). In order to protect the anonymity of the accessible population under

study in this research, pseudonyms were used for student participants instead of their actual names. Students who participated in this study were from the previously described day school and are identified as follows.

Program One. Alex is a healthy 12-year-old boy attending the program for his fifth year. His primary diagnosis is periventricular leukomalacia, a prenatal condition in which the blood flow to his developing brain was restricted, resulting in significant global developmental delay and coordination problems, most notably motor disorder of the lower limbs (Zach, 2010). He is diagnosed with bipolar disorder and pervasive developmental disorder (not otherwise specified), and is extremely distractible and hyperactive.

Alex often has sudden bursts of ill temper, evidenced in violent and/or self-injurious expressions of rage or frustration. While some level of that disposition may be learned behavior, a significant degree of it is also likely manifested from his particular disabilities. Further, Alex does not understand danger in the conventional sense, nor does he possess the ability to foresee or avoid hazardous consequences to his actions or in exposure to harmful or perilous situations. These inherent qualities that are a direct result of his exceptionality make Alex a highly vulnerable and at-risk individual. School-based comprehensive evaluation has determined his age equivalent cognitive level to be one year and 8 months. Alex's mother also participated in the study.

Bailey is a healthy 20-year-old female diagnosed with severe autism and moderate/severe intellectual disabilities. Bailey is generally happy at school and enjoys being with her friends. She is a third year senior in the program where she has been attending for 6 years. Her moods sometimes change quickly and drastically. Bailey often intersperses her social interaction with self-injurious behavior that detracts from the appropriateness of her relationship-building skills.

Bailey is verbal but her speech is almost entirely echolalic (the repetition of things said by others [immediate echolalia], including memorized scripts [delayed echolalia]) (Prizant & Rydell, 1984). When Bailey becomes upset, she is not able to appropriately express her displeasure or anxiety and often beats herself in the forehead with her fist. Sometimes noise levels in the classroom and the behaviors presented by other students bother Bailey. Other times she finds their behavior amusing. Hearing people talk about her often upsets her. Bailey's cognitive age equivalency is one year and 10 months. Bailey's parents declined to participate.

A third student participant attending Program One was refused parental consent. However, the student's mother consented to an interview.

Program Two. Parental consent that was requested for participation by students attending Program Two was declined, as was their parents' requested participation. Considerations of the possible reasons and motivations for parental refusal to consent for participation will be included in the Discussion chapter as it is thought by the researcher to be pertinent to the overall analysis of this study.

Analysis

As data were collected, member checks among participants were conducted to ensure credibility. This was done in the case of interviews conducted with parents and professionals by establishing respondent validation at the conclusion of the interview(s) through restating/summarizing the information provided for participants to ensure the accuracy of the record of their responses. Data gathered from functional behavioral assessment was verified through follow-up dialogue with relevant participants (para-educators present during the behavioral episode) to ensure the accuracy and completeness of the information.

Data were collected and triangulated (a) through FBA based field notes taken during observation of student participants in the school setting, (b) interviews of the professionals who work with the student participants at the special day school and the parents of the students, and (c) document review of participant/student IEP records. Distinct themes that emerged from the information obtained were identified through a system of open coding in which key associated concepts were highlighted within separate sub-categories of data collection (FBA, interviews with parent participants, interviews with professional participants, and IEP review).

Characteristics of collected data were grouped according to their recurrence in the whole of information as well as its recurrence within each sub-category. The recursion of findings was then disambiguated by their commonality within categories of data represented and summarized to form specific inter-relational aspects of possible interpretation. To better understand the collected data, a representational abstract framework of findings was built from which later analysis could result.

The collected and coded data from functional behavioral assessment, interviews with parents and professionals working with a self-injurious adolescent population, and review of IEP records, supported a systematic analysis of the information garnered. From this analysis, four themes emerged as prevalent among adolescents who commit NSSI:

1. Emotional dysregulation;
2. The possible existence of a co-morbid disorder;
3. Insufficient development of appropriate coping mechanisms; and
4. The need for improved communicative skills.

Further considerations of these themes and implications of the details of data analysis will be addressed in the following Results and Discussion chapters.

CHAPTER IV

RESULTS

In order to gain insight into episodes of non-suicidal self-injurious behavior among adolescents, functional behavior assessment was conducted among the two student participants attending Program One for whom parental consent was obtained. Interviews were conducted with two parents of students attending Program One. Interviews were also conducted with six professionals who work with students, in both Program One and Program Two, to garner understanding of their experiences with the incidence and prevalence of the behavior.

IEP Review

IEP reviews regarding two student participants who attended Program One were conducted to obtain information regarding the nature and severity of the student participants' levels of disability. Information pertinent to the study was their (a) present levels of social and/or emotional strengths and concerns, (b) communicative skills, and (c) any identified challenging behaviors. The IEP reviews indicated that these students frequently demonstrated self-injurious behaviors, both at home and at school. Results from the review of these records have been integrated into developing the previously described profiles of the student participants and as background for the considerations and analysis presented from the circumstances under which they demonstrated self-injury.

Functional Behavior Assessment (FBA)

To help ascertain the particular circumstances in which self-injurious behavior was displayed by the two student participants in Program One with severe cognitive and communicative

disabilities, FBA was conducted regarding each student for 12 days in January and February, 2012. Data were collected by observation and interaction with these student participants. The following information was included in the data: (a) the number of behaviors evaluated in a given day, (b) the nature of each behavioral episode (and whether it included an instance of self-injury), (c) the setting in which the behavior occurred, (d) a score of 1 to 10 to identify the severity of the behavior (with 1 being very minor and 10 being very severe), (e) the duration of each behavioral episode, (f) any identifiable cognitive distortions (i.e., erroneous interpretations or inaccurate attributions of events) associated with the episode, (g) any identifiable physiological and/or health concerns, and, (h) because these student participants were unable to explain in any way why they were displaying certain behaviors, a statement from school personnel speculating what the student may have been trying to communicate through the behavior (i.e., what emotion or message the student was trying to communicate).

Criteria for what types of behavior was designated as inappropriate for the two student participants in Program One who were to be evaluated were set as follows:

- 1) Tantrums/emotional outburst;
- 2) Property damage;
- 3) Physically assaulting others;
- 4) Disrupting others' activities;
- 5) Resisting supervision;
- 6) Running or wandering away; and
- 7) Self-injurious.

During 12 days in which FBA was conducted concerning Alex, 26 episodes of behaviors deemed inappropriate by these criteria were documented, or an average of 2.17

episodes per day. The most behavioral episodes documented on any day were 5 (one day) and the least was 0 (also one day). The average duration of the episodes was 8.15 minutes, with the longest incident lasting 22 minutes. Three episodes lasted less than a minute, and two others lasted less than two minutes. There were no scores of either 1 or 10 attributed to any behavioral episodes for intensity. The highest intensity rating given was 9 (4 episodes) and the lowest was 2 (2 episodes), with an average rating overall of 5.84. The majority of episodes evaluated took place in the classroom, as would be expected since the majority of school routines took place there, but other instances of the behavior occurred in the front entryway, the hallway, computer room, game room, and lunchroom. The majority of behavioral episodes (16 of 26) involved tantrums/emotional outbursts (crying or screaming), usually as a preface to further behavioral actions. Two episodes involved property damage. In both of these instances, the student participant grabbed at and took away something from a classmate and threw it or tore it up. One instance was deemed to significantly disrupt the activities of others. In 23 instances, the student physically assaulted others by hitting (22 instances, three of which involved hitting a peer), biting (4 instances), pulling hair (one time), or spitting (one time). Though all episodes of inappropriate behavior were classified as resisting supervision, 8 instances involved some attempted escape. For Alex, that meant getting on his knees and trying to crawl away. Ten behavioral episodes were documented which involved self-injurious behavior by the student. In these instances, Alex banged his head repeatedly on the floor or wall.

No physiological or constitutional concerns were identified as being associated with any of these problem behaviors. Identifying the cognitive distortions which may have played a role at the core of organizing Alex's negative thinking and thereby directed the problem behavior was based solely on the spoken utterances of the student rather than what was deemed to be

communicative intent, which was attributed separately. With severely limited expressive vocabulary, Alex generally communicates in one-word utterances of what he wants. When Alex experienced negative behavioral episodes, he often expressed himself in similar patterns. Identified as obsessions during these behavioral episodes, as spoken by the student, were “Mommy” (7 episodes), “Play” - or some variation, including “Ball,” “Bowling,” and “Hockey” - (8 episodes), “Park” (or “Recess”) (5 episodes), “Home” (1 episode), “Ride” (1 episode), and “Shopping” (3 episodes). Other episodes included obsessions with “Hot dog,” “Walk,” and “Circus.”

Communicative needs of the student participant were discerned by attempting to interpret these spoken utterances in the contexts in which they occurred. While this was a highly speculative process (wanted to go home, or wanted attention, etc.), there were some instances in which there was a clear communicative intent. On the day when the students in Program One were to attend the circus, Alex arrived at school in the morning so obsessed that he was unable to wait patiently for the bus to arrive. More generally, when faced with a transition between school routines (group table time to work-time, e.g.), Alex often began with a single utterance of something desired (“Play,” “Recess,” etc.) which then, when not satisfied, became a single-minded obsession resulting in an emotional outburst. Contrary to these episodes typical of the pattern documented, however, were three instances in which Alex, without any precursor or apparent provocation, hit his neighbor or pulled their hair. None of these three episodes involved self-injury. In at least one instance, however, Alex began crying inexplicably while at group table-time, saying nothing that would have communicated any preferences and then resulted in an episode of screaming, hitting, spitting, biting, and head-banging.

Functional behavior assessment was further conducted regarding Bailey for 12 days over a 3-week period. During these 12 days, Bailey experienced 27 episodes meeting the criteria for inappropriate behavior, or an average of 2.25 per day. The most behavioral episodes documented on any day were 6 (one day) and the least was 1 (four days). The average duration of the episodes was 8.03 minutes, with the longest episode lasting 25 minutes (on two separate occasions). One episode lasted less than one minute, with three others lasting two minutes or less. There were no scores of either 1 or 10 attributed to any behavioral episodes for intensity. The highest intensity rating given was 9 (5 episodes) and the lowest was 2 (1 episode), with an average intensity rating of 6.19. The majority of episodes evaluated took place in the classroom, as would be expected since the majority of school routines took place there, but other instances of the behavior occurred in the front entryway, the hallway, and the computer room. Twenty-six of the 27 behavioral episodes involved tantrums/emotional outbursts (in the case of this student participant, loud spoken utterances in an angry voice) and, in 7 of these episodes, stomping of feet was exhibited. In the one episode in which there was no observable emotional outburst, the student participant was laughing at the time she briefly (less than one minute) hit herself in the forehead with her fist. None of the episodes involved property damage or were deemed to significantly disrupt the activities of others. One episode involved some level of physical aggression toward others (digging her fingernails into the palm of the hand of a staff person trying to help her calm down). None of the instances involved any form of attempted escape, nor were they categorized under the criteria of resistant to supervision. All 27 of the instances were demonstrative of the manner in which Bailey self-injures: hitting herself in the forehead with her right fist.

No physiological or constitutional concerns were identified as being associated with any of these behaviors. Identifying the cognitive distortions which may have played a role in organizing Bailey's thinking and directing the problem behavior was based solely on spoken utterances. Due to Bailey being almost purely echolalic (IEP reports indicate that less than 2% of her utterances are in context.), she is unable to express meaningful observations about her environment. Nonetheless, certain utterances appear to take on meanings for her – are said only when angry, or said only when happy. Therefore, utterances were documented at the time of instances of inappropriate behavior and identified as providing some level of insight into her cognitive processes. Among the phrases repeated (at least in some variation) during her episodes of self-injury were “Stop hitting” in 14 of the 27 episodes (Variations included “Stop stop,” “Stop it,” “Tell him to stop,” “Today is stop,” and “Door stop.”), “Down” (8 episodes, including “Calm down,” “Hands down,” “Talk you down,” “Knock you down,” “Got it down.”), and “Super” (12 episodes, including “Super down,” “Super hero,” “Super duper,” “Super dork,” “Super hitting,” “Supernatural first,” “Supernatural fist,” and “Supernatural brat.” Other episodes included vulgarities: “God damn,” “Super bitch,” and “Screw me dot com” (2 episodes). Others were more novel in nature: “Where's Mickey Mouse?” “Nurses crackle,” “Doctor super chance,” and “No turkey today.”

Communicative intent was discerned by attempting to interpret these episodes and her spoken utterances in the context in which they occurred. There were times when nothing she said or the context of the situation appeared congruent to her self-injurious actions (self-hitting while smiling and laughing during computer time, or granted a request [“Break please” granted, but resulting in angry utterances and self-hitting]). In 3 such episodes, communicative intent was documented as unknown without any speculation. Five episodes centered on coming to school

(3 times first thing in the morning, one time coming back from the library, and once returning from the park) and one occurred when it was time to go home. In 1 of the episodes that occurred first thing in the morning, there had been a new student on the bus. This episode, along with 6 others (afternoon mail, checking schedule), appeared to communicate her difficulty processing information while transitioning between places and activities. Other episodes that fairly clearly expressed her dissatisfaction with events taking place around her included an instance when she heard her name spoken but not to her (“Barney – super down - talk you down”), an instance when she felt crowded by the number of people sitting with her at the table (“Today is stop - tell him to stop”), and an instance in which she was suddenly grabbed by another student walking by (“Super duper – supernatural fist – stop”).

Parent Interviews

Interviews were conducted with the parent participants of two students who attended Program One. One parent participant was the mother of Alex. The other was the mother of a student for whom participation in the study was declined. Both parents identified themselves as the primary caregiver for their child in the home. Interviews were conducted in the homes of the parents by appointment. The interview protocol was designed to include open-ended questions that would provide parents with the opportunity to candidly express their experiences as a parent of a self-injurious child. Parent interview formats contained 17 questions toward that goal (Appendix B).

The parents of both students described their child as personable, friendly, and outgoing, and generally happy at home and in the community. Alex’s mother discussed his inability to cope with the frustration he experiences from being unable to effectively communicate his wants and

needs. Both parents expressed that over-stimulation in a crowded or noisy environment was an almost certain precursor for negative behavioral episodes, often resulting in self-injurious behavior. Likewise, both parents discussed their ability to tell beforehand when their child was about to engage in such episodes by physical indications. Heavy breathing, loss of eye contact, and jerkiness of motions were some of those physical indicators. Alex's mother felt strongly that her son's behavioral episodes involving self-injurious behaviors (SIB) were not a choice on his part but the result of lifelong frustration. The parent of the other student saw that her child's self-injury was often a result of physical pain related to her disability. Both parents also expressed their concerns for the future care of their child, as both acknowledged that their child would require total lifelong care. While both identified special education services as the primary source of help for their child, and that those services had successfully provided the help needed in raising their child, Alex's mother also discussed that she had sought clinical help in the past with Alex.

Professional Interviews

Six professional participants were interviewed regarding their understanding of the contextual and developmental factors associated with adolescent NSSI. These professionals were selected for participation in this study because of the researcher's first-hand knowledge of their employment in the school setting with the student participants who self-injure. The professionals selected for participation included two school psychologists, one social worker, one special education teacher, and two case managers. The interviews included three preliminary questions pertaining to the extent of the training and experience in self-injurious

behaviors received by the professional participants and 11 questions based on that experience (Appendix B).

Of the six professional respondents, four identified their personnel preparatory program as having addressed challenging behaviors of students; one stated that it had not (school social worker), and another described that part of their training was minimal (case manager, Program One). Further, three of the respondents said their training had included no information on self-injurious behaviors (school social worker, lead teacher, Program Two, and school psychologist, Program One), one did not remember (school psychologist, Program Two), and two said the information provided was minimal (case managers). All six identified themselves as having students on their current caseload who engage in self-injury.

Four of the six professional respondents said they believed that self-injury among the general population of adolescents was very prevalent, with estimations of the frequency of the behavior as high as 25% within the adolescent population. Another respondent believed prevalence was difficult to determine (but believed it to be 6-7% in non-clinical samples) because they did not see any consistent definition of SIB. Another respondent did not consider the behavior as prevalent among adolescents, while another (who described the behavior as prevalent among students) did not consider it as increasing among adolescents but believed that recent increased awareness has caused professionals to believe that there are increased incidents of the behavior. Four respondents stated they believed incidents of the behavior were on the rise, while two others did not address the issue of whether NSSI was increasing.

Those perceived to be most at risk among the adolescent population were variously described as those with low self-esteem, victims of abuse or neglect, those who engage in high levels of social networking, and those with emotional disturbance. One professional felt that adolescents

with developmental disabilities were more likely to self-injure, while another believed that no particular sub-group could be identified as more at risk of the behavior than any other.

Cited among professional participant responses as explanations of causes of the behavior were (a) needs by adolescents to gain some measure of control in their lives (two responses), (b) attention (one response), (c) emotional release/poor coping skills (four responses), (d) and “copycat” effects (two responses). One respondent stated that the behavior was often a compulsion beyond the control of the person.

All six respondents stated their belief in a contagion effect, wherein some adolescents may engage in episodes of the behavior out of a need for belonging to a group. It was stated by two respondents that either the media or social networking has helped perpetuate the behavior by validating it as normal. One respondent could see a scenario in which so-called copycat behavior could result in a discovery by the young person that NSSI could help release emotional pain or depression, while another felt that copying NSSI behaviors was not likely to develop into chronic self-injury.

Five of the respondents considered an adolescent’s home environment as a factor that could contribute to either a tendency toward SIB or could be a protective factor from engaging in the behavior. Positive attention and/or the modeling of appropriate coping skills in the home were cited by all professional participants as a primary determinant in whether or not a child self-injures. None considered race or ethnicity a factor. One respondent expressed that socioeconomic conditions could be a factor, i.e., they felt that low income levels could contribute to a tendency toward self-injury. Further, all six respondents considered adolescent SIB a behavior likely to escalate over time. Two of the respondents stated that the escalation of the behavior could best be deterred by effective counseling strategies. In the same vein, building

communication skills was cited by two respondents as a way to prevent the behavior from escalating in frequency and aggressiveness. Three of the professionals pointed out that the behavior can be seen, much like other addictions, as a process through which tolerance is built and therefore requires more and more of the same or more extreme behavior to create a feeling of satisfaction. One of these respondents considered a physiological function as a part of that process, stating that increases in the behavior may be due, at least in part, to the increasing need to feel the release of hormones the behavior creates.

Dysfunctional home situations were cited by all as the primary contextual factor adolescents who self-injure are likely to have in common. One respondent described a common characteristic of these students as a penchant for listening to a certain type of music (scream, heavy metal). Two felt that abuse in the home environment was a likely commonality, one of whom went so far as to say that a history of abuse was the only condition likely to determine NSSI behaviors. Of the three professionals who directly addressed the question of predisposal to engage in self-injury, none felt that anyone is predisposed genetically to self-injury. It was considered by one that there could be some form of predisposal to emotional sensitivity in their dealings with others, but that that was not the same as an inherent likelihood to engage in NSSI.

Regarding student self-disclosure pertaining to NSSI, responses varied from saying that students are not likely to self-disclose to saying that students who self-describe their behavior consider it an emotional release. It was stated that students who admit to the behavior usually say they do not feel it is wrong but nonetheless usually promise not to do it again. One respondent described students who self-disclose their NSSI as more than likely to be diagnosed with developmental delays. Two other respondents said these students usually have mental health problems (anxiety, depression, bipolar disorder, reactive attachment disorder) and further

described them as likely risk takers. One respondent said that in her experience, students might often not remember the incident of NSSI behavior.

None of the professional respondents believed there is a connection between SIB and suicide. However, one pointed out that failed suicide attempts could be viewed as a form of self-injury, while another said that self-injury without suicidal intent could nonetheless accidentally result in mortal injury. Another respondent felt that NSSI was possibly a way for an adolescent to seek help prior to committing suicide. Another described a similar process, wherein self-injury represented an unhealthy coping mechanism that, without the learning of appropriate coping skills, could result in suicide.

All respondents felt that community-based interventions could play a beneficial role in decreasing the incidents of SIB among adolescents. One respondent, however, pointed out that such interventions should not be at the exclusion of school-based interventions. Three replied that there should be training for community-based personnel in this regard, so that interventions that were put in place adequately treated any underlying skill deficiencies and behavioral needs (e.g., lack of self-reflection, communication deficits, impulse control).

Five of the six professionals responded to whether they see differences in the self-injurious behaviors among students with or without intellectual disabilities. One of these believed adolescents with intellectual disabilities are more likely to be self-injurious. Another felt there was a difference but did not identify what it might be. Another stated that children with intellectual disabilities are not self-injurious. Two other respondents endorsed a common theme among those with and without intellectual disabilities in that their engagement in self-injury was a by-product of not having a basic need met, whether biologic or emotional. This respondent further said that, for adolescents of severely low cognitive abilities, that primary need

was most likely communicative in nature, while the other who associated a commonality between the two groups, expressed that need as one of requiring an intense sensation for the purpose of emotional release.

Summary

In order to provide an effective and comprehensive analysis of information garnered from interviews, with both parents and professionals, functional behavior assessment, document (IEP) review, and to synthesize the essential features of that information meaningfully, the researcher referred to Schwandt (1997), who considered the process of qualitative analysis a practical science necessarily coexisting with more traditional theoretical science. This view of qualitative analysis as a process dependent on descriptions to arrive at conclusions is inevitably concerned with “the timely, the local, the particular and the contingent” (Schwandt, 1997, p. 125), and is cited as a logical progression of Aristotle’s *phronesis*, or the forming of a broad understanding of observable phenomena through a particular situation. Dickie (2003) called this descriptive analysis essential to meaningful interpretation of collected data, finding it a way to “view some piece of the world differently that lets (one) see (particular) situations in a new way” (p. 50).

As this study was intended to remain atheoretical, and while emerging themes and the triangulation of data provide some foundational element interwoven in ordering the inherent disarray of data, it was the further intention of the researcher to develop a more meaningful analysis of the “particular situation” of adolescent NSSI, as it has occurred in the environment of the small sample previously described, through recursive abstraction, in which a beginning summary of datasets is re-summarized to provide a more accurate final report. The analysis of data was driven by its pertinence relative to beginning research questions.

Data Analysis/Results per Research Questions

1. (a) What behaviors are associated with episodes of non-suicidal self-injury among students whose ability falls within average ranges of cognitive ability?

As reported in interviews with professionals who work with students that have engaged in NSSI, adolescents whose abilities fall within average ranges of cognitive ability who are more likely to engage in the behavior often demonstrate tendencies toward isolation (particularly in the home environment) and maintain a secretive nature regarding their personal likes and dislikes (and exhibit a hypersensitive defensiveness when feeling threatened or invaded). Their need for secrecy may be a result of what they perceive as a pattern of failed communicative attempts to connect with their parents and/or teachers (or any authority figures) in their lives. The extent to which these communicative deficiencies have risen from developmental delay or disability may be relevant to needs for therapy or intervention strategies but less so, if at all, to the behavior itself. These adolescents likely often demonstrate other compulsive behaviors and do not generally consider possible consequences of their actions. While often distant, both purposefully and inherently, in their associations with others, they are also heavily influenced by social media and use that outlet as a method of acquiring a feeling of belonging. Likewise, despite the social/antisocial dichotomy present in their lives, peer relationships often guide their tendency to follow the leads of others and display imitative behaviors. Whether as a precursor or an aftereffect to episodes of self-injury, changes in dress or artistic and musical tastes may accompany the onset of the behavior.

1. (b) What behaviors are associated with episodes of NSSI among students with severe intellectual disabilities?

From observations and interview perspectives of professional candidates regarding adolescents with severe intellectual disabilities, the comorbidity of significant communicative deficits usually exists. Behaviors centered on feelings of anxiety (whatever the cause of the anxiety) are most typical. Among the behavioral patterns identified as preceding, or at least accompanying, episodes of self-injury among these students were crying, yelling, screaming, stomping to show anger, or crawling, possibly as escape behavior. Aggression toward others may coincide with the episodes of self-injury. Most prevalent, perhaps, among verbal students, was the tendency toward perseveration of utterances on which they appeared fixated. Even in consideration of the observation of a student who verbalizes purely (or very nearly) echolalically, repetitive behavioral contexts may be important to rely on for understanding communicative intent. Quite simply, the behaviors associated with episodes of self-injury among adolescents with severe intellectual disabilities, though at times sudden and compulsive, are nonetheless overt in nature and readily display their dissatisfaction with their environment at the moment.

2. What methods do adolescents within these two populations use to self-injure?

Methods used to self-injure vary greatly between these two populations. For student participants who fell within the average range of ability, the most common methods were cutting or burning. Also common (and considered an activity that is increasing in frequency) is self- (or partner-assisted) asphyxiation. Other extreme, but less common, methods include bone breaking and self-induced hypothermia. As it is the consensus of opinion among information gathered, the behavioral aspects of self-injury among this population include a need for escalating to more intense episodes of engagement. Skin picking may be a beginning stage of other, more severe means of SIB, to produce a more acute sensation. As skin-picking may give way to wound

interference, the prevention of wound healing may be succeeded in turn by the intentional creation of new wounds (per professional participant interview response).

For students with severe intellectual disabilities, head-banging, or other self-hitting, are common methods of self-injury. Hair-pulling, self-biting, and eye-gouging are also frequent. These modes of self-harm are also shared among children and adolescents of average intellect. Whether persons with severe intellectual disabilities do not generally cut or burn themselves, or choke themselves, may or may not be a matter of volition, as the contrivances for self-harming by these means are usually not available for their use. Skin picking and wound interference are other methods of self-injury among those with intellectual disabilities, but the intent for self-harm in this way is not clear (at least without context) and may be more of a means of satisfying a sensory requirement than an act of self-injury.

3. What functions do engaging in such behaviors serve among these two groups and are the similarities or differences based on cognitive ability?

Although the functionality within these two populations is multifaceted, there is a clear, underlying dimension across the two groups that is cohesive in at least one respect. Individuals who self-injure, regardless of cognitive levels, are clearly attempting to form, within the parameters of their ability, a system of measures to regulate and control an environment that is uncontrollable to them. Particular aspects of the nature of this affect regulation are not clear, but some specific themes nonetheless emerge as characteristic of the experience and may serve as basic tenets of its function.

Among adolescents of average cognitive ability, the most salient function as evidenced from the data collected (i.e., professional participant interview) is that of a need to manage emotions and feelings in the absence of a facility for producing appropriate responses. The capaciousness

of this element of affect is not confined to a need to find expression for strong emotions, and may as likely be to cover negative feelings and emotions, but either way is a manner of coping in which the adolescent is attempting to control some level of anxiety. There is not currently a model by which the intensity of the perceived anxiety or stress on the part of the self-injurer can be related to the frequency or intensity of the self-injurious behavior. Nor is there a clearly defined relationship between the need for emotional relief and sensation-effect, or the apparent overwhelming desire (or compulsion) to produce a sensory experience without regard for distinguishing between ordinary notions of pleasant or unpleasant. Whatever the efficacy of any links that exist between emotional dysregulation and sensation-effects, some form of connection is undoubted and, like most of the epistemology within the paradigm of self-injury, is individualized in its nature to the point of being insuperable to broad concepts of analysis.

Another thematic element comprising this structural framework of self-injury among this population that was addressed with some recurrence in the information gathered was the existence of a contagion effect, or the validation of the normality of maladaptive behavior by individuals or sub-groups with which an adolescent desires a sense of belonging. Networking through social media is a significant influence on contagion effect, by its availability and its intrinsic capacity for connecting to others anonymously, if such anonymity best suits the needs of an individual. Whether by social networks or in relationships with peers, the contagion of self-injury is often driven by an alpha presence, with less dominant followers looking for a situation in which they can establish their place among a group. However, implicit in any need for making social connections to acquire a sense of belonging is the inherent assumption that there existed for adolescents susceptibility, either directly or indirectly, to these influences through a lack of positive, supportive relationships in the first place, so that satisfying such needs

was characteristic of other, equally necessary essential contributors to emotional well-being. Therefore, some connection between contagion effect and emotional dysregulation appears likely as well.

Also innate within this paradigm is the sense that all self-injury is at least somewhat communicative in intent. Even given the wide variances in pervasiveness and intensity of SIB as a transpiration of underlying distress themes, and the possible comorbidity of other diagnoses or co-occurring disorders, self-injury is at some level a message of dissatisfaction with something elemental to the psyche of an individual. It should be considered, however, that the functions of self-injury among individuals with severe cognitive impairments are thought of, in general, as *more* communicative in nature due to the purity of their emotions and thought processes.

Without the complexity of internal and external mitigating factors through which the development of coping mechanisms are filtered, adolescents with severe intellectual disabilities, already limited by the nature and severity of their disabilities in the capacity for problem-solving and learning of social rules or understanding cause and effect relationships, are reliant to a fuller extent than those without such disabilities on the support of others for social integration and contextual meanings of events. For this population, the difficulty of understanding or processing common environmental cues may be the precedent of self-injurious episodes. In this regard, demonstrating self-injury might best be seen as purposeful behavior that is used with intent within the structure of social exchanges to transmit information, observations, or internal states, or to bring about changes in their environment. It may also be construed as readily apparent, that without the aforementioned intricacies of surrounding psychological processing, such episodes have no circumstances to mitigate the communicative probity of their behavior, even as the content of their communications may remain in doubt.

CHAPTER V

DISCUSSION

It is clear that among adolescents who self-injure and whose cognitive levels fall within the average range of ability, a significant element to their behaviors is the existence of some particular factors that place them at risk for self-injury. These include a heightened cognitive susceptibility to episodes of self-injurious behavior, a purpose that the self-injury fulfills, and that the purpose of the behavior is primarily affective in nature (Klonsky, 2009).

Cognitive Susceptibility

Within the conceptualization of cognitive factors that comprise a framework for susceptibility among these individuals are systemized thought-response patterns of processing their environment in negative terms and that reinforce their tendency toward self-injurious actions. This system of cognitive modification includes both learned behaviors and attitudes and, in the case of comorbidity of associated disorders/disabilities, is symptomatic of more critical and comprehensive functional disturbances. Prevalent patterns of negative processing among this population are most commonly characterized by a propensity for thinking in absolute terms that see the world around them in direct, personal perceptions (White-Kress, Drouhard, & Costin, 2006). These adolescents may base conclusions on information from single events and generalize their thoughts to an unbalanced world-view that is opposed to them and propagate senses of isolation. Also intrinsic to this pattern of cognition are tendencies to think in polarizing terms that categorize people and situations without the allowance for complexity of circumstance or any middle ground of conditions. With these filters in place through which positive aspects of an adolescent's life are excluded and negative aspects are magnified (Beck, 1997), a young

person's vision of reality may become distorted and automatically remove from them the ability for maintaining healthy mental processes for reasoned perception.

Supplemented with other etiological factors common in the lives of adolescents who commit NSSI, notwithstanding co-existence with dual diagnoses, the development of such cognitive susceptibilities is further reinforced by these mitigating conditions. Predominant among these are histories of abuse and/or trauma, invalidating environments or experiences, and networks that normalize the behavior. Although it is typical of the mythology surrounding self-injury, not all individuals who engage in NSSI have abusive or other wise traumatic experiences in their personal histories. It is nonetheless a circumstance that may trigger such behavior among adolescents and is one of the factors that contributes to cognitive susceptibility. Perhaps the most conspicuous factor that can initiate chains of events which result in self-injury is the accumulation of knowledge from environments that are repeatedly and even ritualistically invalidating in the lives of young people. Home, school, and community experiences that continually reinforce negative descriptions and analyses of individuals' cognitive perceptions of their own lives and attribute unacceptable characteristics to their personalities or traits are forms of neglect that are as likely, or more likely, as any other to contribute to elemental cognitive processes of such a nature that self-injury is then a viable tool by which these individuals gain the only empowerment they can (Guerry et al, 2010). Further contributing to the collective mind-set of adolescents who are striving to cope against these odds is the reality of networks, both social and personal, that seem inclined to provide a normalizing function for self-injurious conduct. Other avenues for validating and normalizing SIB are found in certain genre-oriented popular music and media that serve as particularly influential for young people.

As previously outlined, adolescents with more severe intellectual disabilities are not within this group who have, in varying degrees of volition, formed systematic thought processes for their perceptions of themselves and their world. Any measure of cognitive susceptibility is therefore seen as a manifestation of the nature and severity of their disabilities. Within whatever levels of intuition and processing exist for these individuals, it is fair to primarily characterize it as the desire for gratification of their current needs of the moment (and may in this regard be more correctly viewed as behavioral) rather than a method of systemized thought-patterns and responses. It is further of considerable account that these needs are as probable to be of the nature of biologic susceptibility (constipation, illness, hunger, etc.) or physiologic sensitivity (over-stimulation, response to heat or cold, sensory deficiency, etc.) rather than cognition.

Functional Characteristics

Perhaps the most significant underlying precept in characterizing the functional qualities of SIB is that which, at least to some extent, spans the two populations under current study. In its broad sense, the need to control anxiety may be seen as the fundamental role of purposeful self-injuring in any of its primary forms and may be defined further as a means of establishing a “painkiller effect” in which adolescents engaging in self-injury literally may not feel as much pain when injuring themselves than when they are not (Conterio & Lader, 1998). Although other aspects of functionality are frequently considered as separate from this central theme, these (sense of belonging, control over one’s body, retaliation against abusers, or self-hatred [in a variety of forms]), while notably significant in the context of individualized identifications of essential needs on which to base therapeutic interventions, can also be readily seen as simply variations on a theme of attempting to express that which the self-injurious individual finds

inexpressible. Cross (1993) explained this foundation as the attempt to establish ownership of the body to create self-identity while at the same time metaphorically destroying the connection between body and self. This somewhat lofty observation may well underpin the conclusion that, particularly among adolescents and other individuals with significant intellectual disabilities, the physical expression of self-injury generally functions outside of cognitive awareness (Rothschild, 2002), promoting the assumption that the internal resources of self-injurious individuals are more uncontrollable rather than intellectually based and can be irresistible as compulsive behaviors.

Affect Regulation

If it can then be presumed that even among individuals who are emotionally detached and are seeking from self-injury to regain absent feelings of anything instead of nothing, it can then be additionally supposed that the emotional cutoff and the attempt to recover something sensory, even in a negative perspective, is likewise an expression of a need to control the anxieties of the individual. This inability to understand or accept their emotional experiences consequently disallows the likelihood that they can otherwise express themselves in appropriate manners, engage in healthy coping strategies to manage uncomfortable emotions, or demonstrate positive behaviors when distressed. Due to the fact that their senses of self-concept are more often than not based on negative appraisals of themselves and their own emotions, invalidating environments having instilled within them a mistrust in their own internal experiences, the skill of self-regulating emotions is not an option, so control goes to that which is viable for them in the only province where they have the power to make decisions: management of their bodies.

That the choice of those who self-injure is conduct that works toward physical destruction rather than toward bodily self-improvement is a component of the negativity of their world-view.

The pervasiveness of emotional dysregulation extends to social and interpersonal relationships. Research supports that negative self-concept and unhealthy affect regulation processes, though variant in degrees of attachment and isolation, form a cyclical pattern of self-defeating strategies for social connectedness (Wei, Vogel, Ku, & Zakalik, 2005). This may best be seen as a tendency among self-injurious adolescents to seek out a group experience that can reconcile their affective experiences to a more acceptable level and create whatever lost sense of belonging that the adolescent requires. However, among the effects of this is the dispositions of this group to further reinforce negative concepts, isolative tendencies, and interpersonal barriers intended as a defense against those whom they feel have harmed them. Also underlining the dynamics of normalization of SIB are the lowering of thresholds of sensitivity to influences outside the group and the heightening of reactivity. That group experiences in the SIB normalization process are not likely to promote meaningful affective regulation, the escalation of the patterns of the behavior is to be expected. The emotional vulnerability of these individuals when supplemented with their experiences of invalidation is a formula for the creation of personal dysregulation.

Limitations and Future Research

This study was limited by the narrow scope through which it sought to acquire the basics of information regarding adolescent experiences of NSSI. These limitations included the small sample proposed for participation: students, their parents, and professionals working with them. Also limiting was the setting of a special day school in an isolated rural area. In addition to the

small sample of participants proposed for inclusion, a low response rate of consent even among the already minimal sample produced further limiting factors. The efficacy of comparison findings between the two student populations was limited because none of the students attending Program Two (day school for students with emotional disturbance) were given parental consent for participation, nor did their parents agree to participate. Therefore, information gathered was only from professionals working among this student population. The utility of findings from functional behavior assessment based on observation and interaction of students with severe intellectual disabilities did not lend itself to a descriptive method of analysis from which even speculative representations of the nature of their inner experiences could be drawn. The difficulty in standardizing procedures for determining intensity and severity of behaviors in an isolated environment over a brief period of time may overlook important variable contingencies of the setting in which they occurred and are therefore not verifiable to the whole of the student's condition. Also, the lack of a more adequate sampling of student behavior provided stringent limitations of study among this population.

Although there is significant research on the many co-morbid disorders that are often seen in connection with NSSI, future courses of research should broaden their scope to further ascertain the characteristics of self-injurious individuals in the absence of dual diagnosis. Of primary concern in this regard, researchers should continue to address the topic of self-injury as a symptom of more comprehensive and crucial issues and not as a behavior independent of other, wide-ranging variables. Research should examine the process of internal and external factors that trigger both the onset and particular episodes of the behavior in order to assist professionals in learning the classifications and signs of self-injury, understand the etiology behind SIB, stay up to date regarding new conceptualizations of the field of study, and develop cognitive,

affective, and behavioral intervention strategies for service delivery. Future studies should examine the behavior across a variety of settings and create research methodology that includes clinicians and families, as well as school-based professionals and community members.

Recommendations

Systematic strategies for providing appropriate response plans regarding NSSI behaviors are often the domain of school personnel. Although putting such plans into practice may not always be feasible in school settings, teachers, counselors, and school psychologists should nonetheless have the training and resources available to respond in a coherent and informed manner. Of course, the recognition of warning signs of possible self-injurious behaviors should provide the basis of training for school-based staff and such training should not overlook the inclusion of any concerned staff. Often, school nurses, coaches or physical education teachers may be the most likely personnel to observe physical evidence of wounds that may be hidden from other staff (Lieberman, 2004). Beyond recognition of issues of SIB, it is further the responsibility of school crisis response teams to play an instrumental role in referring and assisting in the coordination of community resources for treatment and therapy options that are appropriate for the individual student. Effective school counseling can be helpful in providing a safe atmosphere for healthy student expression but should not supplant any perceived need for clinical mental health treatment or therapy. Rather, school personnel should work in conjunction with clinicians to ensure that the most promising treatment options are fulfilled. This commitment will require a concerted effort on the part of school administrators, not only to provide students with a positive school atmosphere in which student expression is appropriately listened to and acknowledged, but also to ensure that a team approach from qualified personnel includes collaboration with

parents and community support systems to engage self-injurious students in effective interventions.

These options should provide comprehensive, research-based services that address individual needs for learning and maintaining appropriate coping mechanisms encompassing the areas of cognitive stress responses, affect regulation, attachment anxiety, emotional cutoff, and sensory based psychological development (Wedig & Nock, 2007; Wei et al., 2005). In that therapy relies on achieving internal change, these areas of development should focus on the interaction of several regulation systems to promote appropriate emotional processing abilities.

For adolescents with severe intellectual disabilities who self-injure, school-based investigatory procedures (such as functional behavioral assessment) should be conducted to assist in determining the function of the behavior and what students are trying to communicate through their actions. Examinations of variables when conducting FBA should include the recording of antecedent cues, environmental factors, and setting events that appeared in context with the occurrence of aversive behaviors. Direct observation of students should be supplemented with “indirect assessment” (Mace, 1994) gathered from interviews with associated personnel, family members, and thorough record review. Data collection should occur across a variety of settings and include the observations of the person (if capable of self-expression), family, care providers, and school personnel. Integrating a team approach to functional assessment of problem behaviors can help develop more comprehensive evaluations of problem behaviors, their communicative intent, effective practical interventions, and the identification of appropriate replacement behaviors. Team-approached brainstorming can effectively provide approaches for implementing strategies to empower individuals with the means of establishing skill sets that will decrease their tendencies for self-injury.

Conclusion

This qualitative study used a phenomenological approach to describe the experiences of adolescents at a special day school who engage in self-injurious behavior. Behaviors associated with episodes of self-injury across two student populations, those with and without significant levels of intellectual disability, were examined, as were the varying methods by which they commit SIB. Functions of engaging in self-injury were discussed and how those purposes vary across the two groups identified. Finally, recommendations for best practice directed to school-based personnel to respond appropriately and effectively to students who self-injure are offered.

The propensity for some adolescents to engage in non-suicidal self-injury is clearly defined in terms of the needs of these individuals to find expression of internal monologues that cannot otherwise be expressed. The development of mechanisms to cope in healthy ways with feelings of distress or deregulated systems of emotion or self-concept can empower self-injurious persons with skills for appropriate self-expression. Environments that promote such expression through systems of non-judgmental positive support and feedback can greatly help young people achieve these abilities. As the development of such inner workings of self-support is more conventionally achievable among individuals with cognitive and perceptual faculties that are not identified within intellectual disability levels, it is also clear that there are differences in methods of response interventions. Counseling and therapy interventions for adolescents of average abilities should be based on comprehensive strategies for addressing self-injury as a symptom of underlying determining factors that may include the existence of co-morbid diagnoses. The susceptibility of individuals, with or without the comorbidity of disorders, for distorted self-perceptions may be a product of histories of trauma and/or abuse and invalidating environments

that have not sufficiently provided the adolescent with the emotional supports favorable to the development of healthy means of managing and regulating stress.

The basic need to communicate self-expression and to attain feelings of control over emotions may be common themes by which the behavior is driven. However, though similar at this level, purposes of self-injuring vary enough in their elemental forms between those of average ability and those with severe disabilities to require differentiated systems of intervention. In that individuals with intellectual disabilities may lack the perceptive capabilities to effectively respond to therapy in a conventional manner, but that it is no less imperative for them to acquire senses of empowerment and self-determination, conditioning systems of guidance should be provided that teach that self-injurious behavior does not achieve rewards or result in the accomplishment of goals and that enable these individuals to gain understanding of a connection between appropriate expression and positive consequences. When possible, the development of adaptive means of communication may facilitate the expression of needs and wants and be a significant factor in decreasing behavioral episodes. For those members of this population who will require lifelong supportive care, some to a complete extent, levels of training of professional support staff should require comprehensive education focused on these needs.

The findings of this study, although limited, supported the general consensus of the current literature that adolescent self-injurious behavior is a phenomenon that is symptomatic of disruptions in cognitive and affective processing. The purpose of self-injury is to control emotions or to find expression for feelings that the individual cannot otherwise express. While the connection between self-injury and histories of trauma and/or abuse is unclear within adolescent school populations, it is widely accepted that attempts to cope with traumatic life-events are among the functions of self-injury. Therefore, helping young people identify their

experiences in a non-judgmental environment and encouraging them to relate their experiences in a way that validates their feelings, and providing them guidance for the acquisition of appropriate coping skills, should be part of the school experience for adolescents who engage in NSSI. This study also substantiated the understanding that building effective communication skills can be beneficial for reducing self-injurious behaviors among adolescents with intellectual disabilities. Further research studies should continue to explore approaches to adolescent self-injury among school populations to enhance service delivery models for assisting young people in developing appropriate coping skills and achieving healthy self-determination.

REFERENCES

REFERENCES

- Alfonso, M., & Dedrick, R. F. (2010). Self-injury among early adolescents. *American Journal of Health Education, 41*(2), 74-84.
- Arron, K., Oliver, C., Moss, J., Berg, K., & Burbidge, C. (2011). The prevalence and phenomenology of self-injurious and aggressive behaviour in genetic syndromes. *Journal of Intellectual Disability Research, 55*(2), 109-120.
- Bain, S., & Fedynich, L. (2011). *Therapy on the cutting edge: Supportive perspectives of the Inclusion of Self-Injury in the DSM-V*. Retrieved from http://counselingoutfitters.com/vistas/vistas11/Article_06.pdf
- Ballard, E., Bosk, A., & Pao, M. (2010). Invited commentary: Understanding brain mechanisms of pain processing in adolescents' non-suicidal self-injury. *Journal of Youth and Adolescence, 39*(4), 327-334. Retrieved from <http://dx.doi.org/10.1007/s10964-009-9457-1>
- Beck, A. T. (1997). The past and future of cognitive therapy. *Journal of Psychotherapy Practice and Research, 6*(4), 276-284.
- Carr, E. G. (1977). The motivation of self-injurious behavior: A review of some hypotheses. *Psychological Bulletin, 84*, 800-816. Retrieved from <http://psycnet.apa.org/journals/bul/84/4/800/doi:10.1037/0033-2909.84.4.800>
- Carr, J. E., & Sidener, T. M. (2002). On the relation between applied behavior analysis and positive behavioral support. *The Behavior Analyst, 25*(2), 245-253. Retrieved from www.ncbi.nlm.nih.gov/pmc/articles/PMC2731616
- Chibbaro, J.S. (2007). , Helping parents cope with adolescents who self-injure: Strategies for school counselors. *Georgia School Counselors Association Journal, 24*-29.
- Christensen, T. J., Ringdahl, J. E., Bosch, J. J., Falcomata, T. S., Luke, J. R., & Andelman, M. S. (2009). Constipation associated with self-injurious and aggressive behavior exhibited by a child diagnosed with autism. *Education and Treatment of Children, 32*(1), 89-103. Retrieved from <http://dx.doi.org/10.1353/etc.0.0041>
- Conterio, K., & Lader, W. (1998). *Bodily harm: The breakthrough healing program for self-injurers*. New York: Hyperion.
- Creswell, J. W., & Malette, R. C. (2002). Qualitative research. In D. C. Miller & N. J. Salkind, eds., *Handbook of Social Research, 143*-184. Thousand Oaks, CA: Sage.
- Cross, L.W. (1993). Body and self in feminine development: Implications for eating disorders and self-mutilation. *Bulletin of Menninger Clinic, 57*(1), 41-68.

REFERENCES (continued)

- Dickie, V. A. (2003). Data analysis in qualitative research: A plea for sharing the magic and the effort. *American Journal of Occupational Therapy, 57*, 49–56. doi: 10.5014/ajot.57.1.49
- Dominick, K. C., Davis, N. O., Lainhart, J., Tager-Flusberg, H., & Folstein, S. (2007). Atypical behaviors in children with autism and children with a history of language impairments. *Research in Developmental Disabilities, 28*, 145–162.
- Duncan, D., Matson, J. L., Bamburg, J. W., Cherry, K. E., & Buckley, T. (1999). The relationship of self-injurious behavior and aggression to social skills in persons with severe and profound learning disability. *Research in Developmental Disabilities, 20*, 441–448.
- Einfeld, S. L., & Aman, M. (1995). Issues in the taxonomy of psychopathology in mental retardation. *Journal of Autism and Developmental Disorders, 25*(2), 143-167. Retrieved from www.csa.com
- Favazza, A. (1996). *Bodies Under Siege: Self-mutilation and Body Modification in Culture and Psychiatry*, 2nd ed. Baltimore, MD: Johns Hopkins University Press.
- Favazza, A. R., & Rosenthal, R. J. (1993). Diagnostic issues in self-mutilation. *Hospital and Community Psychiatry, 44*(2), 134-140. Retrieved from <http://psychservices.psychiatryonline.org/cgi/content/abstract/44/2/134>
- Forster, S., Gray, K. M., Taffe, J., Einfeld, S. L., & Tonge, B. J. (2011). Behavioural and emotional problems in people with severe and profound intellectual disability. *Journal of Intellectual Disability Research, 55*(2), 190-198. doi:10.1111/j.1365-2788.2010.01373.x
- Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the deliberate self-harm inventory. *Journal of Psychopathology and Behavioral Assessment, 23*, 255-263. Retrieved from www.ingentaconnect.com/content/klu/joba/2001/00000023/.../00362125 doi: 10.1023/A:1012779403943
- Guerry, J. D., & Prinstein, M. J. (2010). Longitudinal prediction of adolescent nonsuicidal self-injury: Examination of a cognitive vulnerability-stress model. *Journal of Clinical Child and Adolescent Psychology, 39*(1), 77-89. Retrieved from <http://www.informaworld.com/openurl?genre=article&id=doi:10.1080/15374410903401195>
- Hagopian, L. P., Kuhn, D. E., & Strother, G. E. (2009). Targeting social skills deficits in an adolescent with pervasive developmental disorder. *Journal of Applied Behavior Analysis, 42*, 907-911

REFERENCES (continued)

- Hargus, E., Hawton, K., & Rodham, K. (2009). Distinguishing between subgroups of adolescents who self-harm. *Suicide and Life-Threatening Behavior*, 39(5), 518-537. Retrieved from <http://dx.doi.org/10.1521/suli.2009.39.5.518>
- Heath, N. L., Baxter, A. L., Toste, J. R., & McLouth, R. (2010). Adolescents' willingness to access school-based support for nonsuicidal self-injury. *Canadian Journal of School Psychology*, 25(3), 260-276. Retrieved from <http://dx.doi.org/10.1177/0829573510377979>
- Herman, J. L. (1992). *Trauma and recovery: The aftermath of violence-from domestic violence to political terror*. (pp. 41-46). New York, NY: Basic Books.
- Horrigan, J. P., & Barnhill, L. J. (1997). Risperidone and explosive aggressive Autism. *Journal of Autism and Developmental Disorders*, 27(3), 313-323. Retrieved from www.csa.com
- Jacobsen, C. M., & Gould, M. (2007). The epidemiology and phenomenology of non-suicidal self-injurious behavior among adolescents: A critical review of the literature. *Archives of Suicide Research*, 11, 129-147. Retrieved from www.informaworld.com/smpp/.../content~db=all~content=a773636353
doi: 10.1080/13811110701247602
- Kamen, D. G. (2009). How can we stop our children from hurting themselves? Stages of change, motivational interviewing, and exposure therapy applications for non-suicidal self-injury in children and adolescents. *International Journal of Behavior Consultation and Therapy*, 5(1), 106-123. Retrieved from www.csa.com
- Kibler, J. (2009). Self-injury in the schools: An exploratory analysis of Midwest school counselors' knowledge and experience. *North American Journal of Psychology*, 11(2), 309-322.
- Klonsky, E. D. (2007). Non-suicidal self-injury: An introduction. *Journal of Clinical Psychology*, 63(11), 1039-1043. doi:10.1002/jclp.20411
- Klonsky, E. D. (2009). The functions of deliberate self-injury: A review of the evidence. *Clinical Psychology Review*, 27, 226-239. Retrieved from www.ncbi.nlm.nih.gov/pubmed/17014942
- Klonsky, E. D., & Moyer, A. (2008). Child sexual abuse and non-suicidal self-injury: meta-analysis. *The British Journal of Psychiatry*, 192(3), 166-170.
doi: 10.1192/bjp.bp.106.03065

REFERENCES (continued)

- Klonsky, E.D., & Olino, T. M. (2008). Identifying clinically distinct subgroups of self-injurers among young adults: A latent class analysis. *Journal of Consulting and Clinical Psychology, 76*(1), 22-27. Retrieved from <http://content.apa.org/journals/ccp/76/1/22>
- Lieberman, R. (2004). Understanding and responding to students who self-mutilate. *Principal Leadership, 4*(7), 10–13.
- Lloyd-Richardson, E. E., Perrine, N., Dierker, L., & Kelly, M. L. (2007). Characteristic and functions of non-suicidal self-injury in a community sample of adolescents. *Psychological Medicine, 37*, 1183-1192. Retrieved from [www.ncbi.nlm.nih.gov/Journal List/NIHPA Author Manuscripts](http://www.ncbi.nlm.nih.gov/JournalList/NIHPA_Author_Manuscripts)
- Mace, F. C. (1994). The significance and future of functional analysis methodologies. *Journal of Applied Behavior Analysis, 27*, 385-392.
- McConnell, S. R. (2002). Interventions to facilitate social interaction for young children with autism: Review of available research and recommendations for educational intervention and future research. *Journal of Autism and Developmental Disorders, 32*, 351–372.
- McGowan, P. O., Sasaki, A., D’Alessio, A. C., Dymov, S., Labonté, B., Szyf, M., Turecki, G., & Meaney, M. J. (2009). Epigenetic regulation of the glucocorticoid receptor in human brain associates with childhood abuse. *Nature Neuroscience, 12*, 342-348. doi:10.1038/nn.2270
- Miller, A. L. (2002). Dialectical behavior therapy adapted for suicidal adolescents. *Suicide and Life-Threatening Behavior, 32*(2), 146-157. doi: 10.1521/suli.32.2.146.24399
- Nock, M. K., & Prinstein, M. J. (2004). A functional approach to the assessment of self-mutilative behavior. *Journal of Consulting and Clinical Psychology, 72*, 885–890.
- Nock, M. K., & Prinstein, M. J. (2005). Contextual features and behavioral functions of self-mutilation among adolescents. *Journal of Abnormal Psychology, 114*, 140-146. Retrieved from www.wjh.harvard.edu/~nock/nocklab/Nock_Prinstein_JAbP2005.pdf
- Nock, M. K., Wedig, M. M., Holmberg, E. B., & Hooley, J. M. (2008). The emotion reactivity scale: Development, evaluation, and relation to self-injurious thoughts and behaviors. *Behavior Therapy, 39*(2), 107-116. Retrieved from <http://dx.doi.org/10.1016/j.beth.2007.05.005>

REFERENCES (continued)

- Peek, L. E., O'Brien Lightner, K., Murrell, A. R., & Howe-Martin, L. S. (2010). Media and other social influences on adolescent repetitive self-mutilation. *Journal of Media Psychology, 15*(3). Retrieved from <http://www.calstatela.edu/faculty/sfisco>
- Pirani, K., & Carmichael, K.D. (2009). What school counselors should know about students who self-injure. *The Alabama Counseling Association Journal, 35* (1), 4-13.
- Prizant, B.M. & Rydell, P. J. (1984). Analysis of functions of delayed echolalia in autistic children. *Journal of Speech and Hearing Research, 27*(2), 183-192. Retrieved from www.ttac.vt.edu/docs/Autism_Conference.../Kingma_Echolalia.pdfRathus, J. H.
- Roberts-Dobie, S., & Donatelle, R. J. (2007). School counselors and student self- injury. *The Journal of School Health, 77*(5), 257-264. Retrieved from www.csa.com
- Rojahn, J., Matson, J. L., Lott, D., Esbensen, A. J., & Smalls, Y. (2001). The behavior problems inventory: An instrument for the assessment of self-injury, stereotyped behavior, and Aggression/Destruction in individuals with developmental disabilities. *Journal of Autism and Developmental Disorders, 31*(6), 577-588. Retrieved from www.csa.com
- Ross, S., & Heath, N. (2002). A study of the frequency of self-mutilation in a community sample of adolescents. *Journal of Youth and Adolescence, 31*(1), 67-77. Retrieved from www.csa.com
- Ross, S., Heath, N. L., & Toste, J. R. (2009). Non-suicidal self-injury and eating pathology in high school students. *American Journal of Orthopsychiatry, 79*(1), 83-92.
- Rothschild, B. (2002). Interview with Len Oakes. "The body remembers: An interview with Babette Rothschild." *Psychotherapy in Australia, 8*(2), 1-4.
- Schwandt, T. A. (1997). *Qualitative inquiry: A dictionary of terms*. Thousand Oaks: Sage.
- Shenk, C. E., Noll, J. G., & Cassarly, J. A. (2010). A multiple mediational test of the relationship between childhood maltreatment and non-suicidal self-injury. *Journal of Youth and Adolescence, 39*(4), 335-342. Retrieved from <http://dx.doi.org/10.1007/s10964-009-9456-2>
- Sigafoos, J., Pennod, D., & Versluis, J. (1996). Naturalistic assessment leading to effective treatment of self-injury in a young boy with multiple disabilities. *Education and Treatment of Children, 19*(2), 101-123. Retrieved from www.csa.com
- Starin, S. (2011). Functional behavioral assessments: What, why, when, where, and who? Retrieved from www.wrightslaw.com/info/discipl.fab.starin.htm

REFERENCES (continued)

- Stark, J.A., Menolascino, F.J., Albarelli, M.H., & Gray, V. C. (1988). *Mental retardation and mental health: Classification, diagnosis, treatment, services*. (pp. xi-xviii). New York: Springer-Verlag.
- Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Symons, F. J., Sperry, L. A., Dropik, P. L., & Bodfish, J. W. (2005). The early development of stereotypy and self-injury: A review of research methods. *Journal of Intellectual Disability Research*, 49(2), 144-158. Retrieved from <http://dx.doi.org/10.1111/j.1365-2788.2004.00632.x>
- Wedig, M. M. & Nock, M. K. (2007). Parental expressed emotion and adolescent self-injury. *Journal of the American Academy of Child and Adolescent Psychiatry*. 46(9), 1171-1178.
- Wei, M., Vogel, D. L., Ku, T., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology*. 52(1), 14-24.
- Weismore, J. T., & Esposito-Smythers, C. (2010). The role of cognitive distortion in the relationship between abuse, assault, and non-suicidal self-injury. *Journal of Youth and Adolescence*, 39(3), 281-290. Retrieved from <http://dx.doi.org/10.1007/s10964-009-9452-6>
- White-Kress, V. E., Drouhard, N., & Costin, A. (2006). Students who self-injure: School counselor ethical and legal considerations. *Professional School Counseling*, 10, 203–207.
- Whitlock, J. L., Eells, G., Cummings, N., Purington, A. (2009). Non-suicidal self-injury on college campuses: Mental health provider assessment of prevalence and need. *Journal of College Student Psychotherapy*, 23(3), 172-183.
- Witwer, A. N., & Lecavalier, L. (2010). Validity of comorbid psychiatric disorders in youngsters with autism spectrum disorders. *Journal of Developmental and Physical Disabilities*, 22(4), 367-380. doi:10.1007/s10882-010-9194-0
- Zach, T. (2010). Pediatric periventricular leukomalacia. *Medscape Reference: Drugs, Diseases, and Procedures*. Retrieved from emedicine.medscape.com/article/975728-overview

APPENDIXES

APPENDIX A

FUNCTIONAL BEHAVIOR ASSESSMENT

Student identification: Alex Date: R 01/12/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 4

Setting(s) and times of behavior: 1) front entry, classroom 8:00 2-4) classroom 8:25, 9:20, 10:50

Intensity: (#1) 7 (#2) 6 (#3) 9 (#4) 4

Duration: (#1) 6 (#2) 12 (#3) 22 (#4) 8 *minutes*

Description of Behavior:

1. crying – whining – hitting - crawling
2. crying – whining – hitting
3. crying – whining – hitting – crawling – biting – head banging
4. crying – whining – crawling

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) mommy park swim
- 2) hockey home
- 3) play mommy
- 4) (said nothing)

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

- 1) unhappy to be at school
- 2) may have been made promises by his mom before coming to school that caused some obsessions to occur to him

APPENDIX A (continued)

Student identification: Alex Date: T 01/17/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 3

Setting(s) and times of behavior: 1) computer room 9:35 2) game room 11:40 3) 12:30

Intensity: (#1) 2 (#2) 5 (#3) 3

Duration: (#1) 8 (#2) 5 (#3) 6 minutes

Description of Behavior:

- 1. crying – refusing to work**
- 2. crying – whining – hitting**
- 3. crying – whining**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) no wait mommy
- 2) hot dog play recess
- 3) play recess mommy

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior:

- 1) did not want to work
- 2) wanted to keep playing
- 3) did not want to wait for classmates

APPENDIX A (continued)

Student identification: Alex Date: W 01/18/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 2

Setting(s) and times of behavior: 1) classroom 10:30 2) classroom, hallway 1:05

Intensity: (#1) 4 (#2) 6

Duration: (#1) 6 (#2) 8 minutes

Description of Behavior:

1. hitting

2. hitting – head banging

 X *Communication* (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) recess play mommy
- 2) work play ball bowling

 X *Communicative need* (Identify what the student may have been trying to say through the problem behavior:

- 1) did not want story time; wanted recess
- 2) did not want to go to computer

APPENDIX A (continued)

Student identification: Alex Date: R 01/19/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview _____

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) classroom 9:55

Intensity: (#1) 9

Duration: (#1) 12 minutes

Description of Behavior:

- 1. crying – hitting – crawling – screaming – head banging**

 X *Communication* (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) shopping

 X *Communicative need* (Identify what the student may have been trying to say through the problem behavior):

- 1) did not want story time

APPENDIX A (continued)

Student identification: Alex Date: F 01/20/2012

Instructor(s): Matt Z. Emalee Hannah

Data Sources: Observation X Interaction Interview X

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) classroom 10:10

Intensity: (#1) 2

Duration: (#1) < 1 minutes

Description of Behavior:

1. pulled hair (para's)

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

1) (said nothing)

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

1) wanted attention

APPENDIX A (continued)

Student identification: Alex Date: M 01/23/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 5

Setting(s) and times of behavior: 1-5) classroom 8:20, 9:05, 9:30, 11:15, 2:20

Intensity: (#1) 5 (#2) 3 (#3) 4 (#4) 8 (#5) 6

Duration: (#1) 5 (#2) 1 (#3) 1 (#4) 6 (#5) 15 minutes

Description of Behavior:

- 1. grabbing and throwing things - hitting**
- 2. hitting**
- 3. hitting (peer)**
- 4. crying – hitting – head banging – crawling**
- 5. hitting - biting**

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) shopping swim
- 2) pool water
- 3) (said nothing)
- 4) hockey ball
- 5) play recess

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior:

- 1) wanted attention
- 2) wanted recess
- 3) wanted recess
- 4) wanted recess
- 5) wanted to go home

APPENDIX A (continued)

Student identification: Alex Date: T 01/24/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview _____

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 2

Setting(s) and times of behavior: 1) hallway 9:30 2) computer room 9:40

Intensity: (#1) 5 ***(#2) 7***

Duration: (#1) 4 ***(#2) 9*** ***minutes***

Description of Behavior:

- 1. grabbing and throwing things – hitting - crying**
- 2. hitting – crawling - head banging**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) shopping ball recess
- 2) mommy

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) did not want to work
- 2) wanted to go home

APPENDIX A (continued)

Student identification: Alex Date: W 01/25/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview _____

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 0

Setting(s) and times of behavior: Not applicable

Intensity:

Duration: minutes

Description of Behavior:

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

APPENDIX A (continued)

Student identification: Alex Date: M 01/30/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) lunchroom 12:20

Intensity: (#1) 4

Duration: (#1) < 1 minutes

Description of Behavior:

- 1. hit neighbor (peer) at lunch**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) (said nothing)

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) wanted attention

APPENDIX A (continued)

Student identification: Alex Date: W 02/01/2012

Instructor(s): Matt Z. Hannah

Data Sources: Observation X Interaction X Interview _____

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) classroom 9:20

Intensity: (#1) 4

Duration: (#1) < 1 minutes

Description of Behavior:

1. hit neighbor (peer) at table time

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) (said nothing)

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) wanted attention

APPENDIX A (continued)

Student identification: Alex Date: F 02/10/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 3

Setting(s) and times of behavior: 1) front entry 8:00 2) hallway, classroom 8:35
3) classroom 9:00

Intensity: (#1) 9 (#2) 8 (#3) 7

Duration: (#1) 18 (#2) 8 (#3) 12 *minutes*

Description of Behavior:

- 1. crying – screaming – hitting – spitting – biting – head banging**
- 2. crying – screaming – hitting – crawling – head banging**
- 3. crying – hitting head banging - crawling**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) circus
- 2) circus go
- 3) bus circus

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1-3) couldn't wait to go to the circus

APPENDIX A (continued)

Student identification: Alex Date: M 02/13/2012

Instructor(s): Matt Z. Emalee

Data Sources: Observation Interaction Interview _____

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 3

Setting(s) and times of behavior: 1) classroom 9:15 2) hallway 10:35 3) classroom 2:10

Intensity: (#1) 9 (#2) 8 (#3) 8

Duration: (#1) 15 (#2) 12 (#3) 10 minutes

Description of Behavior:

- 1. crying – screaming – hitting – spitting – biting – head banging**
- 2. crying – screaming – hitting – crawling – head banging**
- 3. crying – screaming – hitting – crawling – head banging**

X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) mommy park
- 2) walk
- 3) ride

X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

- 1) unknown
- 2) wanted recess
- 3) wanted to go home

APPENDIX A (continued)

Student identification: Bailey Date: T 01/17/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 3

Setting(s) and times of behavior: 1) classroom 9:10 2) computer room 1:20
3) classroom 2:15

Intensity: (#1) 3 (#2) 2 (#3) 5

Duration: (#1) 3 (#2) < 1 (#3) 6 minutes

Description of Behavior:

- 1. hitting self on forehead with right fist**
- 2. hitting self on forehead with right fist**
- 3. hitting self on forehead with right fist**

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) today is stop – tell him to stop
- 2) (laughing)
- 3) Barney – super down – talk you down

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

- 1) too many people at table
- 2) unknown – laughing
- 3) heard someone say her name

APPENDIX A (continued)

Student identification: Bailey Date: W 01/18/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 2

Setting(s) and times of behavior: 1) classroom 9:55 2) computer room 10:30

Intensity: (#1) 3 (#2) 7

Duration: (#1) 4 (#2) 6 minutes

Description of Behavior:

- 1. hitting self on forehead with right fist**
- 2. beating (hard) on self on forehead with right fist**

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) knock knock (para: who's there) knock you down – stop hitting – all grown up
- 2) super – you can do it – stop hitting

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

- 1) unknown - upset when asked to get a drink of water after exercising
- 2) unknown – checked schedule (desk)

probably just wanted to be left alone

APPENDIX A (continued)

Student identification: Bailey Date: R 01/19/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 6

Setting(s) and times of behavior: 1) front entry, classroom 8:10 2-5) classroom 9:00, 9:25, 10:05, 11:30 6) lunchroom 12:25

Intensity: (#1) 8 (#2) 7 (#3) 4 (#4) 9 (#5) 7 (#6) 8

Duration: (#1) 10 (#2) 6 (#3) 3 (#4) 7 (#5) 15 (#6) 12 *minutes*

Description of Behavior:

1. **beating self on forehead with right fist and stomping**
2. **beating self on forehead with right fist**
3. **hitting self**
4. **beating self on forehead with right fist and stomping; digging her fingernails into other people's hands**
5. **beating self on forehead with right fist**
6. **beating self on forehead with right fist and stomping**

 X **Communication** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) super do it – screw me dot com 2) you can do it 3) teenage adventures 4) right here (said her name) 5) stop – right here break 6) nurses crackle – god damn – super bitch

 X **Communicative need** (Identify what the student may have been trying to say through the problem behavior):

- 1) unknown – dad said she was having a bad day when she was picked up in the morning
- 2-6) unknown – became upset when asked to do anything except sit in the rocking chair

APPENDIX A (continued)

Student identification: Bailey Date: F 01/20/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 2

Setting(s) and times of behavior: 1-2) classroom 8:45, 11:20

Intensity: (#1) 5 (#2) 4

Duration: (#1) 4 (#2) 1 minutes

Description of Behavior:

- 1. hitting self on forehead with right fist**
- 2. hitting self on forehead with right fist**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) super duper – got it down
- 2) down – down – down

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior:

- 1) unknown
- 2) unknown – in the middle of a routine task

APPENDIX A (continued)

Student identification: Bailey Date: M 01/23/2012

Instructor(s): Matt Z. Rachael Selena

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) classroom 8:10

Intensity: (#1) 7

Duration: (#1) 10 minutes

Description of Behavior:

1. hitting self on forehead with right fist

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) supernatural first – hit – get down – super dork – stop – stop hitting – babies fast asleep – what’s up with you

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior:

- 1) upset when first arrived in the morning

APPENDIX A (continued)

Student identification: Bailey Date: W 01/25/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview _____

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) classroom 2:15

Intensity: (#1) 8

Duration: (#1) 9 minutes

Description of Behavior:

- 1. hitting self forcefully on forehead with right fist**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) super hitting – down – stop – no hitting – super down

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) unhappy to get up from table to check schedule (mail)

APPENDIX A (continued)

Student identification: Bailey Date: F 01/27/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 3

Setting(s) and times of behavior: 1) front entry, classroom 8:10 2-3) classroom 2:20, 2:50

Intensity: (#1) 8 (#2) 7 (#3) 8

Duration: (#1) 7 (#2) 2 (#3) 5 *minutes*

Description of Behavior:

- 1. beating self on forehead with right fist**
- 2. beating self on forehead with right fist**
- 3. hitting self on forehead with right fist**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) super duper – super hero – stop stop door stop
- 2) no pooping on the bus – Vince – don't do it – get back here
- 3) stop stop

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) angry when came in
- 2) didn't want to deliver mail
- 3) angry when time to go home

APPENDIX A (continued)

Student identification: Bailey Date: M 01/30/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 2

Setting(s) and times of behavior: 1-2) classroom 10:45, 11:35

Intensity: (#1) 9 (#2) 8

Duration: (#1) 15 (#2) 8 minutes

Description of Behavior:

- 1. beating self on forehead and stomping**
- 2. beating self on forehead with right fist**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) supernatural brat – god damn it – move on already
- 2) super down – super knock you down – stop hitting – calm down – where’s mickey mouse

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior:

- 1) hitting when came back from library
- 2) hitting when came back from park

may have been angry about returning to class

APPENDIX A (continued)

Student identification: Bailey Date: T 01/31/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) bus, front entry, hall, classroom 8:05

Intensity: (#1) 9

Duration: (#1) 25 minutes

Description of Behavior:

1. beating self on forehead with right fist and stomping

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) stop hitting – all grown up – super down – hands down

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) unhappy about new student on the bus

APPENDIX A (continued)

Student identification: Bailey Date: W 02/01/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview X

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 3

Setting(s) and times of behavior: 1) kitchen, hallway, classroom 9:50 2) classroom 10:40
3) hallways 2:30

Intensity: (#1) 9 (#2) 3 (#3) 9

Duration: (#1) 25 (#2) 1 (#3) 13 *minutes*

Description of Behavior:

- 1. beating self on forehead with right fist and stomping**
- 2. briefly hitting self at table**
- 3. beating self on forehead with right fist and stomping**

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) all done – hate medicine – stop it
- 2) stop door stop
- 3) doctor super chance – no turkey today – today is (unintelligible)

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior:

- 1) hitting when making biscuits
- 2) unknown – had just calmed down and was given a snack
- 3) didn't want to do mail run

APPENDIX A (continued)

Student identification: Bailey Date: R 02/02/2012

Instructor(s): Matt Z. Rachael

Data Sources: Observation X Interaction X Interview

Intensity Rating Scale: 1(low) - 10 (high)

Number of negative behaviors evaluated today: 1

Setting(s) and times of behavior: 1) classroom 9:40

Intensity: (#1) 6

Duration: (#1) 3 minutes

Description of Behavior:

1. hitting self on forehead with right fist and stomping

 X ***Communication*** (Identify specifically what the student said that may have played a role in organizing or directing problem behavior):

- 1) stop – super duper – supernatural fist

 X ***Communicative need*** (Identify what the student may have been trying to say through the problem behavior):

- 1) doing work at table when grabbed from behind by a student walking by to check schedule
upset at being grabbed

APPENDIX B

INTERVIEW QUESTIONS

Parental Assessment Questionnaire for Self-Injurious Behavior in Adolescents

1. Tell me a couple phrases that you would use to best describe your child.
2. Is your son/daughter generally happy when they are at home?
(If so) What usually leads to those happy moments?
3. Tell me about other times and other places when your child is happiest.
4. Does he/she sometimes get upset when they are at home?
(If so) What usually happens that leads them to becoming upset?
5. Tell me about other times and other places when you have observed your child become upset.
6. When your child becomes upset, what is his/her behavior usually like?
7. When your child is upset, what helps calm him/her down?
8. Are there ways you can tell when your child is going to get upset?
9. When you worry about your son/daughter, what makes you worry about him/her the most?
10. What people do your son/daughter get along with the best?
11. Is there a reason, in your opinion, that your son/daughter gets along with them?
12. Do you get along well with your child's friends?
13. Were you ever aware that your son/daughter hurt him/herself on purpose?
How did you become aware of it?
Do you know what happened to make him/her choose to hurt him/herself?

APPENDIX B (continued)

14. Has your son/daughter ever come to you to talk about times when they have hurt him/herself?

(If so) What did they tell you?

What did you say to him/her?

15. If your son/daughter made you aware or told you that he/she injured her/himself, did you have to take him/her to the doctor?

(If so) Would you mind sharing what happened when you took him/her to the doctor?

(For example) What questions did the doctor ask of you or your son/daughter, and how did you or your son/daughter answer the doctor?

16. Have you ever asked for help from anyone regarding your son/daughter's injurious behavior?

(If so) Whom did you go to for help?

Do you believe you received the help you or your son/daughter needed?"

17. Is there anything you would like to tell me about you or your child that I haven't asked?

APPENDIX B (continued)

Survey Questionnaire for Professionals Working with Adolescents who Self-injure

This survey includes 3 preliminary questions and 11 questions based on your experiences with students who engage in self-injury.

- A. Did your personnel prep program include a course(s) on challenging behaviors of children/youth?
- B. (If so) Did it include information about self-injurious behaviors?"
- C. What experience as a professional have you had with students who self-injure?

This research is intended to deepen understanding of self-injurious behavior. We hope, however, that our findings will also shed light on the contextual and developmental conditions that affect adolescent mental health outcomes. Some of the questions that guide this research include:

1. How prevalent do you think are self-injurious practices in adolescent and young adult populations?
2. Who do you perceive as those who are most at risk to self-injure?
3. Why do you perceive children/youth choose to self-injure?
4. Do you perceive that students begin to self-injure because they have friends who self-injure?
5. Do you perceive that a student's cultural norms, such as age, race, ethnicity, income level, or other impacts within their home environment, lead a student to self-injury?

If so, which do you perceive as putting the student more at risk for this behavior?

6. As a professional who works with students who have behavioral challenges, do you perceive that once a student begins to self-injure that his/her practices of that behavior escalate over time?

If so, can you tell me why you believe this happens?

7. Do you perceive that the students who commit self-injury have common factors such as living conditions at home, experiences at school, other environmental or contextual issues? Do you perceive that students who experience these conditions with contexts are predisposed to commit self-injury?

APPENDIX B (continued)

8. In your experience with students who self-disclosed to you that they injure themselves, what commonalities do you see across students in what they have told/shared with you?
9. In your professional opinion, what is the relationship between self-injurious behavior and suicide?
10. In your opinion, can self-injurious behavior and other concerning mental health conditions, such as suicide, be prevented in the school setting by community-based interventions?
11. Do you see differences in your answers for students who do or do not have intellectual disabilities?

APPENDIX C

SCRIPT FOR PRELIMINARY STATEMENT PRIOR TO PARENTAL INTERVIEWS

I want to remind you we are here to talk about _____. I am conducting research at our school for my Master's Thesis at WSU. This study is about kids who self-injure. At this point, you have consented to participate in the study. However, you can still withdraw your consent if you wish.

Participating in the study means allowing me to conduct an interview with you. Choosing not to be a part of this research will have no bearing whatsoever on _____'s school or your relationship with me or anybody else at the school. But because I believe the information you have to share would greatly benefit this research, if you participate, I think the resulting study could help us understand why some kids choose to hurt themselves.

Before I ask you any questions, I want to make sure you know that if you become uncomfortable at any point during the interview, please tell me right away and we can take a break or suspend the interview entirely. Also you can skip answering any questions you'd rather not talk about. Now if you're sure you're ready, we'll begin.