Deliberate Self-Harm in the Prison Setting

by

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ABSTRACT

Although the earliest discussions on deliberate self-harm can be traced in medical literature as early as the mid-1800s, it wasn't until the 1960s when the psychiatry community became interested in studying self-harming behavior (Favazza, 1998). Since then, psychiatrists and psychologists alike have spent time researching self-harm behaviors and evaluating treatment methods for individuals who engage in self-harming behaviors. The vast majority of the existing research focuses on patients in the community who self-harm. However, little research has been dedicated to examining self-harming behaviors among the incarcerated population. This dissertation seeks to fill the gap in the literature by analyzing self-harming behaviors among prison inmates in Arizona. Based on record reviews, data was gathered on every self-harm event that happened between September 1, 2018 until September 30th, 2019 by the inmate population incarcerated within the state of Arizona's 16 state and private prisons. During the 13-month study time period, a total of 2,845 self-harm events were gathered, which were produced by 647 inmates. The results indicate that a large portion of the deliberate self-harm events that occurred in the prison setting served a functional purpose for those who engaged in the self-harm. Specifically, offenders who engaged in deliberate self-harm behaviors did so to obtain a desired outcome or for some kind of secondary gain. The results also indicated that many offenders engaged in deliberate self-harm to obtain a transfer to a safe housing location, and that the number of self-harm event these offenders engaged in decreased once they were transferred to their coveted housing location.

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INTRODUCTION

To the observer, the act of deliberately engaging in self-harming behavior often provokes feelings of distress and astonishment, particularly if the self-harm behavior is particularly shocking (Favazza, 1998). Deliberate self-harm (DSH) is perplexing, and the discomfort and sense of alarm associated with treating or interacting with people who engage in self-harm may be due to the fact that self-harm behavior is not a common behavior found in the general population; most people do not intentionally harm themselves (Kaminski & Smith, 2009; Mangnall & Yurkovich, 2010; Smith & Kaminski, 2011). In fact, outside of culturally normal self-harming behaviors such as piercing and tattoos, repeated DSH is rare (Boyce, Carter, Penrose-Wall, Wilhelm & Goldney, 2003; Favazza, 1998). The rarity of the behavior contributes to our lack of understanding of the reasons underlying the behavior.

Despite the rarity of DSH, scholars acknowledge that self-harming behavior is a significant problem and is often linked to later more serious behaviors, such as completed suicides (Hawton et al., 2016). Practitioners and academics also recognize the anguish associated with DSH for the person engaging in self-harm, their families, and for the mental health staff helping them. People who engage in DSH are often regarded as being among the most challenging patients with whom mental health professionals interact (Favazza, 1998). Even seasoned medical staff are often still alarmed—and sometimes even disgusted— by DSH behavior (Favazza, 1998).

DSH also requires a substantial amount of clinical and staff resources to treat and manage (Gitlin, Caplan, Rogers, Avni-Barron, Braun & Barsky, 2007; Hawton et al.,

2016). Further, DSH events tend to be "emotionally charged" and "staff time expended managing these cases is considerable and often fraught with frustration and indecision" (Fagan et al., 2010, pp. 50). As such, the phenomenon of DSH is often viewed as a rare but serious issue that requires more research to provide researchers and practitioners with an evidence-based understanding of why the behavior occurs and how best to treat it (Mangnall & Yurkovich, 2008).

DSH occurs in many different forms and in many populations (Chapman et al., 2006). DSH behavior is relatively rare, albeit significant problem in the general population, it is more common and often more serious in specialty populations, such as among correctional clients (e.g., Fazel et al., 2008; Smith & Kaminsky 2010). Yet, the understanding that researchers and practitioners have of the self-harming behavior that occurs in the prison setting is negligible. The limited understanding of DSH in prisons may be due to the lack of transparency of many correctional departments, the restrictions on access to data many researchers face, and the lack of interest or care about prison inmates demonstrated by the common public. Given that the literature suggests the frequency of self-harming behaviors are rising, (Mangnall & Yurkovich, 2008; Smith & Kaminsky, 2011), and, further, that these behaviors are particularly high among the inmate population (Cooper & Berwick, 2001; Fazel et al., 2008; Jeglic et al., 2005; Jenkins et al., 2005), studying the risk factors that lead to DSH and examining the protective factors that preclude people from engaging in self-harm is crucial.

Additional research is needed on DSH in the correctional setting not only because studies have shown that DSH occurs at higher rates among the inmate population, but also because previous research has indicated that the type of DSH that occurs in prison is

often more serious and more lethal when compared to individuals in the community setting (Smith & Kaminsky 2010). Also, many studies suggest that DSH behavior is often associated with later completed suicide, which further reinforces the importance of studying DSH among in prisons (Fazel et al., 2017; Marzano et al., 2012). Last, if prisons are a "hotbed" for self-harm as some academics propose (Mangnall & Yurkovich, 2010, p. 89), it is ethically imperative to explore the contributory factors that lead to such high rates of DSH in order to reduce the amount of self-harm that occurs in the correctional setting.

One of the most fundamental deficits in the self-harming research is the lack of standardized term and definition to describe deliberate self-harm behavior (Edmondson, Brennan & House, 2016; Fagan & Helfand, 2010; Mangnall & Yurkovich, 2008, 2010). According to Mangnall and Yurkovich (2008), "Despite agreement across disciplines regarding the significance of the phenomenon there continues to be definitional ambiguity and lack of consensus regarding what deliberate self-harm (DSH) is and is not" (p. 175). Many common terms for self-harm include, self-injurious behavior, parasuicidal behavior, self-mutilation, and deliberate self-harm (Chapman, Gratz, Brown, 2006). DSH will be used in this dissertation to represent the "the deliberate, direct destruction or alteration of body tissue without conscious suicidal intent" (Favazza, 1998, Self-Mutilation Defined section, para. 1). There is an emphasis on the concept that DSH behavior occurs without the intent to commit suicide.

This dissertation evaluates the characteristics of inmates who engage in DSH by comparing the similarities and differences between inmates who engage in repeated self-injurious behavior at high rates, those who engage in self-harm a few times, and those

who self-harm only once. Particular attention is placed on inmates who engage in self-injurious behavior at a high rate to better understand these types of inmates and the risk factors that lead to their frequent self-harm. These inmates are particularly important to understand for myriad reasons, but three are particularly salient.

First, inmates who engage in multiple self-injurious behaviors cost an enormous amount of money in terms of treatment when they engage in self-harm as a function of their medical costs (Smith, 2013). Specifically, correctional departments often have to provide correctional officers (sometimes at overtime pay) to escort such inmates to prison medical units, or, in some severe cases, to community hospitals (Gitlin et al., 2007; Zarzar & McEvoy, 2013). Further, after inmates self-injure, correctional staff are often required to maintain close observation of the inmate and are mandated to respond, intervene, or manage the inmate's behavior when the inmate becomes escalated or engaged in self-harm (Fagan et al., 2010; Smith & Kaminski, 2011). This level of observation often requires a significant amount of already scarce staffing resources (Short et al., 2009).

Second, inmates who repeatedly engage in self-injurious behavior contribute to burn out among correctional officers and medical staff. Such burnout can lead to inappropriate reactions to and treatment of self-harming inmates, which, in turn, can perpetuate the cycle of self-injurious behavior among those who are prone to self-injure (Fagan & Helfand, 2010; Gitlin et al., 2007; Kenning et al., 2010).

Third, self-injurious behavior has been associated with later completed suicide (Farmer, Felthous Holzer, 1996; Fazel, Ramesh, Hawton, 2017; Hawton et al., 2016; Short et al., 2009;). For example, several studies found that individuals who completed

suicide had a history of engaging in repeated self-injurious behavior (Farmer et al., 1996; Fazel et al., 2017; Lohner & Konrad, 2006). Given the monetary and staffing costs, the likelihood of burn out when managing self-harming inmates among correctional staff, and the link between self-harm and later drastic behavior (such as suicide), it is imperative to better understand why self-injurious behavior occurs in prisons, and the characteristics of those who engage in repeated self-harm.

The literature suggests that gleaning more knowledge about inmates who engage in high rates of self-harm and how best to treat them is crucial as repeated self-harmers tend to be a small group of individuals who are responsible for a disproportionately large number of the self-injurious events (Smith & Kaminski, 2011). As previously discussed, repeated self-harming inmates in the correctional setting consume large amounts of staff resources (time, energy, money), which makes better understanding this small but challenging population beneficial for custody staff, correctional administrators, and healthcare staff. This research project will also examine factors such as inmate environment, age, housing status, the time of day the self-injurious behavior occurred, and the day of the week the event occurred on to analyze the differences between repeated self-injurers and individuals who engage in self-harm at a lower frequency.

To explore important dimensions of self-injurious behavior events among inmates, this dissertation examines all such events that occurred in the state prisons operated by the Arizona Department of Corrections during the 13- month time period between the dates of September 1st, 2018 and September 30th. 2019. This research is intended to provide practical recommendations and information to assist corrections staff in the management of a particularly challenging population. The research also aims to

inform correctional mental health clinicians who are involved in the treatment of inmates who exhibit unstable and risky self-harming behavior. Specifically, the goal of this project is to gather and synthesize data that can be used to inform correctional mental health workers in terms of treatment planning, appropriate behavioral interventions, the identification of inmates who need mental health program referrals, or identifying inmates who demonstrate a need for a higher level of mental health services.

This dissertation is organized into six chapters. Chapter 2 consists of a literature review that provides an overview of the history of DSH, a discussion on how the psychiatric and medical literature as evolved in their understanding of DSH, and a summary of the limited literature in existence pertaining to DSH specifically in the community and correctional setting. Chapter 3 presents the methodology used in this dissertation research study. Chapter 4 presents the results of the analyses performed on these data and discusses the implications of the findings. Finally, Chapter 5 presents the study's primary conclusions and recommendations, while acknowledging key limitations. Chapter 5 also presents recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

According to Favazza (1998), DSH can be traced back to the 5th century B.C.E. book *History* which depicts a Spartan leader who engaged in several different kinds of disturbing self-harming behavior. DSH is also found in the Bible. In the Old Testament, DSH such as cutting and self-mutilation is referenced in the context of the worship of false gods, such as Baal (1 Kings 18: 24–29), and as a practice of mourning the dead (Deuteronomy 14:1). In the New Testament, the book of Mark, which portrays a man who repeatedly engages in self-cutting as a result of purported demonic possession (Mark 5: 2–5). Although psychiatric illness, rather than demonic possession, eventually became the generally accepted cause of DSH, it was not until the 1980s when psychiatry began to examine DSH in a systematic way. It was during this time when clinicians determined that DSH was important and warranted research attention (Favazza, 1998). It was during this time that the commonly-accepted and widely-used definition of DSH was established: "The deliberate, direct destruction or alteration of body tissue without conscious suicide intent" (Favazza, 1998, Self-Mutilation Defined section, para. 1; see also Fagan et al., 2010; Mangnall & Turkovich, 2010).

The definition of the term DHS includes the word "deliberate" because indirect self-harm, such as accidents, is qualitatively different such that it should not be lumped together with intentional self-harming behaviors (Favazza, 1998). Similarly, the word "direct" is included in the definition to convey that indirect self-harming behavior, such as excessive alcohol and drug use or food restriction, are also distinct from self-harming behaviors that cause immediate injury (Favazza, 1998). It is also important to note that

researchers who study DSH behaviors do not include culturally-based behaviors, such as tattoos or piercings, in the list of behaviors categorized as DSH (Favazza, 1998; Mangnall & Yurkovich, 2010).

The commonly accepted definition of DSH highlights the idea that there is a distinction between suicide or attempted suicide and DSH. This distinction is illustrated by the following: "A basic understanding is that a person who truly attempts suicide seeks to end all feelings whereas a person who self-mutilates seeks to feel better" (Favazza, 1998, Brief Historical Review of Deviant SM section, para. 7). Said differently, people who engage in DSH lack the intent to cause their own deaths (Chapman et al., 2006). Still, extant research suggests that people who engage in repeated DSH are at a higher risk for subsequent attempted and completed suicide (Cummings & Thompson, 2009; Dear et al., 2000; Mangnall & Yurkovich, 2008; Short et al., 2009).

Deliberate Self-Harm (DSH) in the Correctional Setting

The overwhelming majority of DSH research is dedicated to examining self-harm behavior in the community (Edmondson et al., 2016). Research suggests that DSH behavior in the community ranges from 4% to 38% among students enrolled in college (Smith & Kaminski, 2011). However, it is commonly thought that self-harm behaviors occur at higher rates in the correctional setting due to the elevated prevalence of trauma histories among inmates, the presence of mental illness (including co-morbid disorders commonly associated with self-harm), and the factors that accompany living in prison (Krysinska, Heller & De Leo, 2006; Lohner & Konrad, 2006; Marzano, Ciclitira & Adler, 2012; Smith & Kaminski, 2011).

Both scholars and correctional practitioners agree that there is insufficient research devoted specifically towards DSH in the correctional setting (Klein, 2012; Smith & Kaminsky, 2011). This dearth of applied literature is disappointing because according to Mangnall and Yurkovich (2010), prisons are "notorious hotbeds" for DSH (p. 89). Perhaps that assertion seems intuitive to some commentators, but the reality is that there are few studies to support or contradict that notion. Moreover, most of the scant studies examining DSH in the correctional setting are either outdated or are based on small sample sizes or weak methodologies (Mangnall & Yurkovich, 2008; Smith & Kaminski, 2011).

However, the existing literature does provide some information in terms of what contributes to DSH in the prison setting. First, research sheds light on the notion that DSH behavior is commonly used as a coping mechanism or as a way to regulate negative or unwanted emotions (Fagan & Helfand, 2010; Jenkins et al., 2005; Mangall & Turkovich, 2019). Other researchers note a contagion effect whereby individuals who are prone to DSH are triggered by others who engage in DSH and, in turn, begin to deliberately harm themselves (Kaminsky & Smith, 2009). Still, other researchers discuss the link between DSH and a variety of mental illnesses including psychoses, mood disorders, or personality disorders (Cooper & Berwick, 2001; Gitlin, et al., 2007; Reisner et al., 2013; Zarzar & McEvoy, 2013).

Additional researchers reference those who engage in DSH for instrumental reasons as part of some effort to achieve secondary gains (Dear, Thompson & Hills, 2000). The motivation to engage in DSH behavior for the purpose of secondary gain appears to be most closely linked to the DSH that occurs in the prison setting (Cummings

& Thompson, 2009; Dear et al., 2000). It is also important to note that a substantial portion of the research dedicated to DSH that occurs in the prison setting involves examining the differences between suicide attempts and self-injurious behaviors, which is done primarily by studying a person's intent or the lethality of the DSH (Dear et al., 2000; Horesh, Levi & Apter, 2012; Lohner & Konrad, 2006).

The Role of Mental Illness in DSH Behavior

One predominant theme found in the limited literature on DSH is the association between mental health issues and self-harming behavior (Fazel, Cartwright, Norman-Nott & Hawton, 2008). According to Fagan and colleagues (2010), research often indicates that there is a link between DSH and mental health disorders. Although this link is prevalent in select personality disorders, it is particularly salient for those persons with serious mental illnesses (SMI), such as those involving cognitive disorders, psychotic disorders, or mood disorders (Fagan et al., 2010). Notably, people with SMIs are found in the correctional setting at rates two to four times higher than rates of SMIs in the general public (Litschge & Vaughn, 2009; Skeem, Manchak & Peterson, 2011).

> One study concluded that up to 17.5% of inmates in state prisons had schizophrenia, bipolar disorder, or major depression…. Another found that 16.6% of inmates in five jails met the diagnostic criteria for SMIs that included schizophrenia, schizophrenia spectrum disorder, schizoaffective disorder, bipolar disorder, brief psychotic disorder, delusional disorder, and psychotic disorder not otherwise specified…. And a 2006 survey conducted by the U.S. Department of Justice concluded that upwards of 24% of inmates in certain metropolitan jails evidenced symptomology of a

> psychotic disorder…. Studies show that the number of persons with SMIs in the prison system has risen from 7% in 1982 to 10–19% of jail populations, 18–27% of state prison populations, and 16–21% of federal prison populations. To put these prevalence estimates into perspective, the current rate of SMIs in jails and prisons is two to four times higher than rates of SMIs found among the general public. (Schug & Fradella, 2015, pp. 493–495 [internal citations omitted])

The overrepresentation of people with SMIs in correctional settings is due in large part to what scholars have dubbed the *criminalization of mental illness* in the United States (Schug & Fradella, 2015, p. 496; see also Abramson, 1972; Torrey et al., 2010). The process has involved a number of factors that collectively contributed to high incarcerations rates with people with mental illnesses. It began in the mid-1950s with efforts to move people with SMIs from in-patient psychiatric facilities into community mental health treatment programs that either never materialized at all or where woefully underfunded (see Schug & Fradella, 2015). This led to tens of thousands of former psychiatric patients being homeless or otherwise living without proper care (Goldman & Morrissey, 1985). This, in turn, brought many people with SMIs into the criminal justice system either as a function of "mercy bookings" or because they committed nuisance crimes, such as disturbing the peace or urinating in public, as a function of their persistent psychiatric issues (Teplin & Pruett, 1992, as cited in Schug & Fradella, 2015). In addition to the failure of the many community mental initiatives that followed mass deinstitutionalization, other factors that contributed to a rise in the correctional population of people with SMIs include "decreased funding for public psychiatric services, tight

restrictions on the involuntary civil commitment of the mentally ill, and policies that get tough on crime and disorder, policies ranging from ‘broken windows’ policing to the narrowing of criminal defenses of excuse" (Schug & Fradella, 2015, p. 496). But regardless of the causes, it is clear that people with SMIs do not fare well in correctional settings where they often decompensate, making them not only more expensive to house in prison, but also difficult to treat and manage as evidenced by the fact that they engage in attempted and completed suicides at a higher rates than their mentally stable counterparts (Schug & Fradella, 2015; see also Fradella, 2003).

In the correctional setting, research indicates that mental illness is linked with DSH, and those who engage in DSH are more likely to have a history of receiving mental health services (Smith & Kaminsky, 2010). However, the specific types of the mental health disorder matters, as does the purported the function of the DSH behavior. Research suggests that mentally ill inmates who exhibit symptoms of psychosis or cognitive deficits engage in self-harm for distinctly different reasons than inmates with personality or mood disorders. For example, an inmate with a psychosis diagnosis might self-harm in response to fixed delusions or command hallucinations (Chapman et al., 2006), whereas an inmate with a mood disorder might engage in DSH as a means to regulate their emotions or cope with depression. As such, it is important to examine and understand the causes and function of the DSH behavior exhibited by prison inmates in order to implement appropriate treatment and responses to DSH (Jeglic, Vanderhoff & Donovick, 2005).

Differentiating the Nature of Mental Illnesses That Contribute to Self-Harming Behaviors

The literature indicates that DSH behavior often co-occurs with many different types of mental health disorders (Fagan et al., 2010). However, there are significant etiological differences between organic, cognitive impairments, psychotic disorders, mood disorders, and personality disorders. These etiological differences can lead to the development of self-harming behaviors for vastly different reasons. Research suggests that there are functionally different reasons people engage in self-harm depending on the type of mental disorder from which they suffer. The type of mental illness also dictates whether or not the self-harm behavior is deliberate and under the "conscious control of the individual" (Fagan et al., 2010, p. 50).

DSH is specifically linked with emotional distress and is not the result of cognitive deficiencies or psychoses (Favazza, 1998). As Fagan and colleagues (2010) explain, self-harm that is "the product of delusions, hallucinations, or serious mental retardation" is excluded from the DSH category because it is viewed "as more biologically driven, and, therefore, not under the conscious control of the individual" (p. 50). For example, someone with schizophrenia who is experiencing formication—the tactile hallucination of bugs crawling under the skin—might scratch or cut themselves open in a futile attempt to release the perceived infestation (see Berrios, 1982), but such an act is a byproduct of psychosis that is excluded from the definition of DSH. In contrast, clinicians have identified several different behavioral causes of *deliberate* self-harm, some of which are especially relevant in the correctional setting.

Contributory Factors to DSH in the Prison Setting

Although researchers acknowledge that mental illness plays a substantial role in motivated DSH behavior, there is no consensus in the literature in terms of one unifying factor that causes people to engage in DSH behavior (Fagan, et al., 2010). Also, there is no comprehensive scientific theory identified in the literature that is used to explain the causal mechanism(s) for DSH behavior, generally (Chapman, et al., 2006). Past research suggests that some inmates engage in DSH as a mechanism to get their needs met or to get desires outcomes (Jeglic et al., 2005; Gitlin et al., 2007), or to obtain attention or interaction from staff (Marzano et al., 2012). Literature on DSH also indicates that other than the role of mental illness in DSH, there are at least two other broad categories that researchers and practitioners suggest serve as an impetus for DSH: affective dysregulation and environmental factors.

Affective dysregulation has to do with the notion that people engage in self-harm in an attempt to regulate their moods, reduce tension and anxiety, or manage negative emotions. Scholars and practitioners often indicate in the literature that inmates who engage in DSH often lack healthy ways of coping with stress, frustration, and other negative emotions (Chapman et al., 2006; Mangnall & Yurkovich, 2010; Reisner et al., 2013). The environmental factors category has to do with how characteristics from one's environment contribute to increased rates of DSH behavior. According to the literature, there are characteristics unique to the prison setting that contribute to DSH (Fazel et al., 2017). Other authors acknowledge that prison itself motivates people to engage in DSH. (Dear et al., 2001).

Affective Dysregulation as a Functional Reason for DSH in Prison

One of the most prevalent links in the literature to DSH behavior is its strong connection to Borderline Personality Disorder (Chapman et al., 2006; Krysinska et al., 2006). The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) provides the following diagnostic criteria for Borderline Personality Disorder (BPD): "A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following [criteria]" (American Psychiatric Association [APA], 2013, p. 663). The fifth diagnostic criteria for BPD is, "Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior" (APA, 2013, p. 663). The DSM-5 indicates that self-harming behavior, such as suicidal behavior and self-mutilation are "very common" among those diagnosed with BPD (APA, 203, p. 664).

Many scholars corroborate the notion that DSH is often associated with Borderline Personality Disorder (Chapman et al., 2006; Dyke et al., 2014; Krysinska et al., 2006; Mangnall & Yurkovich, 2008). According to Zarzar and McEvoy (2013), "Borderline personality disorder (BPD) is characterized by chronic instability of affect and interpersonal relationships, and recurrent suicidal or self-injurious behavior" (p. 272). Other practitioners highlight additional features of BPD, listing symptoms such as "cognitive-perceptual symptoms, emotional dysregulation, and impulsive-behavioral dyscontrol" (Beri & Boydell, 2014, p. 140). As the literature suggests, the hallmark of the BPD is the inability to appropriately manage emotions and frustrations, as well as poor impulse control. As such, the outcome of these symptoms is often DSH, which is used as a means to cope or gain a sense of control over their environment and emotions.

DSH behavior is one of the major and most notorious components of BPD. A considerable number of DSH behaviors may be attributed to BPD. As such, within the DSH literature, a substantial amount of research and scholarly articles have been dedicated to examining the nexus between DSH and BPD. According to Mangnall and Yurkovich (2008), people who exhibit DSH behaviors "tended to have strange and intense emotions and heightened sensitivity to rejection" (p. 179). Notably, the participants in that study who engaged in DSH were more likely to meet the criteria for BPD when compared to participants who did not have a history of self-harming behavior. The results of that study support the diagnostic criteria of deliberate self-harming behavior as an indicator of BPD (Klonsky, Oltmanns & Turkheimer, 2003). Given the strong relationship between BPD and DSH, individuals with this diagnosis are overrepresented in the psychiatric and prison populations and are responsible for a substantial amount of self-harming behavior (Zarzar & McEvoy, 2013; Smith & Kaminski, 2010).

Regardless of whether a person has been diagnosed with BDP, DSH has been linked with the functional need to regulate emotions, reduce negative feelings, or manage difficult psychiatric symptoms (e.g., depression, anxiety). Gitlin and associates (2007) examined several case studies and concluded that those who engage in DSH often experience "intense anger and emotional lability" (p. 164). These researchers also described "feelings of emptiness and unbearable tension" among individuals who engage in DSH, which motivates them to self-harm (p. 164). Further, feelings of guilt have a significant influence on psychological stability, and subsequently, these types of negative emotions are associated with an increase in suicide and self-harming behaviors (Cooper

& Berwick, 2001). In terms of DSH that specifically occurs in the correctional setting, when compared to inmates who do not deliberately harm themselves, inmates who do engage in DSH report higher levels of current distress and appear to have a more difficult time effectively coping in healthy ways (Dear, Thompson, Howells & Hall, 2001).

DSH is sometimes used to aid select persons with regulating negative emotions and the psychological attendant of such emotions. DSH is effective at these things for several reasons; one main reason is its success in terms of stopping unwelcomed states of arousal and negative feelings. DSH is effective at leading to a temporary decrease in severe and overwhelming emotions, such as guilt and shame; however, these emotions often return (Reisner et al., 2013).

Jeglic and colleagues (2005) also examined the link between DSH and emotion regulation. They, too, reported on the significant effect that DSH has on emotion and mood regulation for some individuals:

> Affective dysregulation produces an aversive state of arousal that the individual may seek to attenuate through any number of coping strategies. When such strategies fail, however, individuals may turn to self-harm as a means of reducing the negative affect state and of restoring a sense of emotional equilibrium. (Jeglic et al., 2005, p. 136)

Chapman and colleagues (2006) similarly concluded that for many individuals who engage in DSH, the act of self-harming is used to remove undesirable feelings and emotional distress. Importantly, these authors concluded that DSH *effectively* removes negative emotions and distress. Put differently, self-harming behaviors appears to be an

effective, albeit dysfunctional, coping mechanism for some people insofar as it helps them reduce the unpleasant affective symptoms of BPD and select other mental illnesses.

In addition to regulating negative emotions, DSH has also been linked with the reduction in feelings of tension. Notably, according to a literature review on DSH completed by Mangnall and Yurkovich (2008), "all of the literature examined reveal that the primary antecedent or situation preceding an instance of DSH was some form of tension buildup" (p. 179). Similarly, Mangnall and Yurkovich (2010) found that the culmination of anxiety and anger resulted in a "visceral build-up of tension" which required a behavior or event to obtain a sense of relief (p. 91). In their study, individuals engaged in DSH behaviors to relieve tension they were experiencing that resulted from the build-up of severe and unwanted negative emotions.

Other studies concluded that those who self-harm quickly experience a sense of relief, a temporary escape, and a decrease in physiological stress after engaging in DSH that lasts up to 24 hours (Mangnall & Yurkovich, 2008; Reisner et al., 2013). For example, Mangnall and Yurkovich (2010) indicate that previous studies have shown that DSH provided "short-term, immediate relief" following a self-harming event (p. 92). Others similarly report the common observation of people who engage in DSL display a "calmness" after they perform a self-harm event (e.g., Favazza, 1998). Further, individuals who engage in DSH to cope with negative emotions often report decreased negative emotions, a decrease in physical tension, they exhibit relaxed behavior, and they even report feelings of elation directly after the DSH behavior (Jeglic et al., 2005).

An extension of the notion that people self-harm to decrease or terminate feelings of tension is the concept that some people self-harm to communicate the amount of pain

they are experiencing. For example, one of the functional reasons people engage in DSH is to elicit some sort of social interaction which can positively reinforce the self-harming behaviors (Reisner et al., 2013). Consider also that Dear and colleagues (2000) determined that a group of people who engaged in DSH did so with the goal of improving their current life situation. Specifically, the researchers surmised that the persons in their study exhibited "an ambivalent wish to die, a need to show other people how hurt the attempter feels, and a wish for temporary oblivion" (Hawton, 1989, p. 203). Snow (1997) found parallel findings in her study of prison inmates who engage in DSH. The findings of this study provide support for the perspective that inmates engage in DSH in response to distress, and to communicate the anger and tension they are experiencing.

Overall, the previous research suggests that DSH serves many functional purposes for those who engage in self-harm. First, the literature suggests that people engage in DSH behavior self-harm as a means to regulate their emotions. Second, DSH has been linked with immediate relief from unwanted psychiatric symptoms or intense negative states of arousal. Last, research shows that people who engage in DSH behaviors experience a sudden and quick relief in the tension they are experiencing immediately following the DSH behavior.

The Link Between Aggression and DSH

Related to the use of DSH as a means to regulate emotions or to reduce tension, another underlying factor that is widely discussed in the literature is the link between DSH behavior and aggression (Favazza, 1998; Gitin et al., 2007). Specifically, those who engage in self-harm also exhibit higher rates of aggression (Simeon et al., 1992). The association between DSH and aggression suggests that those who engage in DSH

behavior also have problems regulating their moods, aggression, or frustration in healthy ways (Favazza, 1998; Gitlin et al., 2007). In fact, self-harming behavior is commonly thought to be a mechanism through which people dysfunctionally express their aggression and rage by directing these emotions towards themselves (Gitlin et al., 2007; O'Donnell, House & Waterman, 2015; Vernham, Tapp & Moore, 2016).

Krysinska and colleagues (2006) acknowledged the association among inpatient participants between aggression and suicidal behavior. According to the researchers, increases in aggression could lead to an increased risk for suicidal behavior in some cases. In the correctional setting, Smith and Kaminski (2010) found that "incarcerated self-injured were associated with a 213% increase in the number of disciplinary infractions, with each [DSH] event's being associated with a 37% increase in the number of disciplinary infractions" (p. 93). These findings are consistent with previous research that reported inmates who engaged in DSH demonstrated higher rates of aggression and hostility (Favazza, 1998; Gitin et al., 2007 Krysinska et al., 2006).

There is a need to not only gather more information about what contributes to DSH in the correctional setting, but also to identify a theoretical framework to explain DSH in the correctional setting. The emotional regulation and the reduction of tension and of physiological stress people experience after a DSH event can be explained by Experiential Learning Theory. DSH is often a cyclical process whereby individuals who frequently engage in DSH learn that DSH is a dysfunctional yet effective means to manage their unwanted negative emotions or terminate anxiety and tension. The process by which individuals learn to self-harm, or when their self-harming behavior is reinforced can be explained by Experiential Learning Theory's framework.

Experiential Learning Theory

David Kolb (1984) developed Experiential Learning Theory (ELT) in his book entitled *Experiential Learning: Experience as the Source of Learning and Development.* According to Kolb, an important aspect of the theory—and a key distinction from other learning theories—is the notion that experiences play a significant role in a person's learning. Kolb's definition of ELT, which is often referenced in subsequent articles, states: "Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). One of the central aspects of ELT that differs from other learning theories is the theory's focus on the "process of adaption and learning as opposed to content and outcomes" (Kolb, 1984, p. 38). Said differently, other learning theories often focus on fixed behavioral outcomes versus the *process* by which learning occurs. By contrast, ELT posits that the process of learning leads to knowledge that builds upon itself, and is, therefore, "formed and re-formed" through experience (Kolb, 1984, p. 26). Essentially, ELT suggests that learning is refined as a function of acquiring new skills and experiences.

Kolb explained that there are four stages of ELT. The first is *concrete experience*, which involves simply trying or doing something; the outcome of the experience is not relevant. The observations the individual makes at this stage are relevant.

The second stage is called *reflective observation*. In this stage, the individual who engaged in the behavior or made the relevant observations reflects on the experience or observations and commits them to memory. At this point, the reflection is associated with a certain emotion that produce uniquely blended cognitive and affective learning outcomes as a function of the person's reflections on their experiences.

The third stage is *abstract conceptualization*, which requires the individual to think about the relevant experience. The stage involves thinking about how one can improve, leading to "new implications for future action" (Kolb, 1984, p. 21; see also Kolb, Boyatzis & Mainemelis, 1999).

The last stage is called *active experimentation*; and is characterized by the individual repeating the original experiment or experience with their new approach, which, in turn, creates a new concrete experience to improve their skills and guide the individual in a recursive manner toward future experiences. Kolb emphasized that because learning is a continuous cyclical process, there is no "end" to learning; humans are always gaining knowledge and adapting to their environment because of their experiences (Kolb, 1984; Kolb et al., 1999).

Kolb placed significant importance on the role of an individual's environment as part of the learning process. Specifically, Kolb posited that learning involves a series of transactions between the individual and their environment. The individual makes these transactions by building new experiences upon their reflections on past experiences, which allows the individual to grow and acclimate to new life experiences.

Another important principle of ETL is the notion of emotional reflection. This principle indicates that a person's decisions are made based on their previous experiences and the reflections on their experiences. According to ETL, each experience builds upon itself and adapts through the learner's reflection and their critical thinking of past experiences. Overall, the main tenet of ETL is the idea that people learn and base their perceptions on past experiences. Further, the knowledge people acquire shapes their perception of the world, and this knowledge forms and re-forms over time, which creates

the learner's distinct lens by which they view the world and act within the world (Kolb, 1984; Kolb et al., 1999).

Experiential Learning Theory Applied to DSH in the Correctional Setting

When applying ELT to the correctional setting, the theory suggests that inmates learn behavior based on characteristics of the prison environment and their experiences in prison. Inmate behavior is also shaped by their experience in how correctional health care staff and security staff respond to inmate's behavior (Dyke et al., 2014). As the literature indicates, there is a need to understand better what motivates inmate behavior and what the functional reasons for their behavior are. ELT would suggest that inmates engage in a cyclical process and continue to test for more effective ways to get their needs met, or more effective ways to elicit attention and interaction from prison staff. As such, knowing what motivates DSH in the correctional setting may reveal which environmental factors in prison need to be adjusted in order to undo learned problematic behaviors exhibited by inmates, such as DSH (Fagan et al., 2010). This may result in lower rates of DSH in the correctional setting, which will benefit both staff and inmates (Gitlin et al., 2007).

The literature on DSH both generally in the community and in the correctional setting suggests that one of the functional reasons people engage DSH is to regulate their moods or negative emotions. Specifically, many people who engage in DSH report feeling depressed or anxious, which leads them to engage in self-harm as a means to feel better or feel relief (Snow, 1997). According to ELT, because of their past life experiences, people who engage in DSH have learned that this behavior is an effective means to reduce tension, anxiety, and physiological stress. Given that DSH is used as a

means to regulate emotions, and people who engage in DSH often experience a decrease in negative emotions and a reduction of physical tension, this leads to DSH being negatively reinforced. This reinforcement increases the likelihood that DSH will be used again in the future as a mechanism to regulate emotions and reduce tension.

Chapman and colleagues (2006) summarize this process by stating, "Temporary relief from intense emotional responding reinforces and strengthens DSH, making this behavior considerably more likely when the individual experiences similar conditions in the future" (p. 379). In other words, ELT provides a theoretical explanation of the functional reasons why people engage in DSH. Indeed, applying the theory to DSH suggests that self-harming behaviors will continue such that they become a consistent pattern of behavior in a cycle in which the individual engages in DSH and experiences the benefits of the behavior, such as a reduction in tension and an increase in positive mood (Jeglic et al., 2005; Reisner et al., 2013). However, this cycle can lead many people who engage in DSH to experience shame for their self-harming behaviors which, in turn, can worsen their emotions in a manner that leads them to engage in more DSH as a coping mechanism, and the cycle continues (Chapman et al., 2006; Jeglic et al., 2005; Reisner et al., 2013).

Exploring the Intent and Lethality of Deliberate Self-Harm Behavior

Another prevalent theme in the literature is the emphasis on the importance of examining the seriousness of DSH and the person's intent while engaging in DSH. Researchers have spent considerable time trying to understand the similarities and distinctions between a suicide attempt and DSH behaviors that, by definition, do not occur simultaneously with any intent to cause one's own death (Cummings & Thompson,

2009; Dear et al., 2000; Horesh et al., 2011; Lohner & Konrad, 2006). These attempts are complicated because those who engage in DSH sometimes have mixed motives and demonstrate an ambivalence about dying; as a result, they may be reckless in their infliction of self-harm such that they may tolerate—or even invite—substantial risks of death even though their immediate goal might be to relieve emotional suffering (Dear et al., 2000).

As previously explained, the hallmark of DSH is that people engage in those self-harming without the intent to actually die (Chapman et al., 2006). However, many studies show that those who complete suicide engaged in DSH in the years prior to their death (Farmer et al., 1996; Fleming, McDonald & Biles, 1989). Also, engaging in risky DSH can also lead to a more severe injury than the person intended to inflict onto themselves, including serious injury and the accidental completion of suicide (Fleming et al., 1989). In addition to the important aspect of understanding the similarities and distinctions between suicide attempts and DSH, previous research on DSH in the prison setting has been directed at evaluating whether or not correctional staff should treat suicidal behavior and DSH behavior the same. In the quest to answer this question, a significant portion of the research on this topic examines the seriousness or lethality of the self-inflicted injury, the intent of the person engaging in DSH, and the risk to life the injury inflicted.

Research has shown that there is a clear separation between inmates who engage in DSH without the intention of completing suicide, and those who engage in more lethal methods of self-harm, which demonstrate an intent to commit suicide. According to researchers, the mode in which inmates self-harm, such as hanging, cutting, or swallowing of foreign objects, is a significant factor (Farmer et al., 1996). When

examining the lethality of the methods used to self-harm, the medical seriousness of the injury, the severity of the injury, and the risk of death are all factors that tend to be evaluated when determining lethality. Further, it is important to evaluate not only the method used, but how serious the injury inflicted by the method of self-injury. For example, superficial cuts are not as lethal as cuts that inflict injury on a vein or artery. Also, the height at which a person jumps impacts the seriousness of the injury, and, not all items a person swallows will inflict the same injury; a swallowed razor will inflict more injury than a piece of plastic (Horesh et al., 2012; Lohner & Konrad, 2006).

Among male prison inmates, studies also show that there is a strong link between a person's intent and the lethality of their self-harming behavior. According to Lohner and Konrad (2006), "Our results suggest that DSH and SA (suicide attempts) should be considered as separate entities" and treated as "distinct groups" (p. 381). These researchers found that DSH is closely associated with low intent and low lethality injuries, and suicide attempts are linked with high intent and high lethality injuries. The implications of these findings is that lethality and intent are interconnected and correspond to DSH and suicidal behavior.

Horesh and colleagues (2012) corroborated these findings by comparing the objective-lethality of specific self-harming behaviors and the subjective intent of the associated self-harm events among individuals admitted to a community hospital for self-harm. Perhaps unsurprisingly, they found a positive correlation between the lethality of DSH behaviors and the corresponding degree of suicidal intent. They also found that compared to people who engage in objectively low-lethality DSH, people who completed suicide or who engaged in high-lethality DSH events that could objectively be deemed

serious suicidal behaviors were less likely to reach out for help and had a history of less non-serious self-harming events. This suggests increasing levels of potential lethality of self-harm events may indicate risk for a subsequent completed suicide. Most other research is in accord (see Flemming et al., 1989; Horash et al., 2011; Lohner & Konrad, 2006). That being said, not all researchers agree.

In their examination of the differences in intentions between suicidal behavior and DSH in the prison setting, Cummings and Thompson (2009) highlighted the blurred boundary between self-harming behaviors that are considered suicide attempts and behaviors that are believed to be strictly DSH (i.e., without intent to cause death). They reported that people who engaged in suicidal behavior and those who engage in less serious DSH are not mutually exclusive; those who engage in DSH often have the intent to die and, therefore, may be in jeopardy of either intentionally or accidently completing suicide. Accordingly, they advocated for correctional staff to take both low-lethal and high-lethal self-harming behaviors seriously. This recommendation aligns with those by Dear and colleagues (2000) who found that some individuals who engaged in DSH behavior entertained suicidal intent at varying degrees.

In summary, although there is an overall scarcity of research of examining DSH in the correctional setting, what little there is tends to focus on understanding DSH as a functional reason for regulating emotions, managing overwhelming negative distress, and providing an immediate sense of relief from building tension. ELT provides a framework to understand why these functional reasons for DSH are reinforced—namely because individuals learn to use DSH as an effective means to cope with unwanted feelings and negative emotions.

The next section will examine the second broad category that research suggests contributes to DSH behavior: the environmental factors in one's surroundings. Specifically, this section will discuss the factors that are unique to the prison setting that are commonly associated with DSH behavior This perspective suggests that DSH behaviors in prison are environmentally learned behaviors. In addition to a discussion on the environmental factors that motivate inmates to engage in DSH in the prison setting, the impact that the correctional environment has on DSH behavior is explained within the framework of ELT.

Prison Experiences as Factors that Lead to DSH Behaviors

The previous sections have discussed the notion that people engage in DSH for the functional reasons of obtaining relief from tension or anxiety, and/or to regulate their negative moods or emotions. An extension to the perspective that DSH is a learned behavior from experiences that shape a person's ability to cope and the type of coping skills they are equipped with, other correctional practitioners and academics suggest that DSH is an environmentally-based behavior that is learned due to characteristics unique to the correctional setting. The literature suggests there are three broad categories of the prison environment that contribute to DSH among inmates. The first category is made up of the institutional stressors that are prevalent in the correctional setting and found in prisons both nationally and internationally. The second category is made up of the widespread belief that DSH behavior is linked with the attitudes and roles of correctional security and medical staff. Last, the literature indicates that DSH behaviors exhibited by prison inmates are motivated by the desire to seek attention, for the purpose of secondary gain, or to obtain a desired outcome. Some authors even observe a contagion effect in

terms of DSH behaviors in prisons, which suggests a learning aspect of DSH.

Institutional Characteristics and Stressors

There is a large gap in the extant literature on the environmental factors prevalent in the correctional setting that lead to DSH (Smith & Kagansky, 2011). Nonetheless, some research has begun to identify institutional characteristics that influence DSH in prison. Prison— in and of itself— has been identified as such a stressor that it serves as a contributing factor to DSH behaviors for inmates (Lohner & Konrad, 2006). The characteristics often found in prison are deleteriously referred to as the "rigors of prison life," and are often discussed as specific factors prevalent in the prison environment that contribute to DSH (Cooper & Berwick, 2001, p. 170). A similar phrase found in the literature to describe these types of characteristics in the prison setting is "situational stressors experienced in prison" (Dear et al., 2001, p. 278). According to this research, institutional environmental factors and aspects of everyday prison life can contribute to higher rates of DSH behaviors when compared to self-harm rates in the community.

The research suggests that the DSH behavior that occurs in prison might be perpetuated by unique features that are distinctly found in the correctional setting (Smith & Kagansky, 2011). For example, that lack of control and large amount of uncertainty that is prevalent in the prison setting are risk factors for suicidal behavior and DSH (Jeglic et al., 2005). Inmates may engage in DSH as a means of obtaining a sense of self-control (Fleming et al., 1989). Smith and Kagansky (2011) summarize this topic and illustrate the loss of control experienced by prison inmates: "Correctional facilities are highly controlled systems wherein negligible privacy is afforded. Custodial and security requirements are designed to maximize the observations and control of inmate behavior

while minimizing the importation of and use of dangerous objects" (p. 27). The loss of control and uncertainty experienced by inmates might make the prison environment a relatively unique crucible for DSH behavior.

Prison imposes an extraordinary level of social exclusion (Jenkins et al., 2005). The boredom attendant to social isolation can cause or exacerbate negative emotions for many inmates, but can be particularly concerning for those who resort to DSH (Cooper & Berwick, 2001). Participation in recreational time, hobbies, working training programs, educational classes, and other engaging experiences can relieve boredom and associated negative emotions (Cooper & Berwick, 2001). Similarly, inmates who have good support from other inmates, who establish good rapport with correctional staff, who keep in contact with people outside of prison, and who can discuss their concerns with members of their support network tend to experience lower rates of depression and anxiety, both of which are prevalent antecedents for DSH behavior (Cooper & Berwick, 2001). In contrast, inmates who engage in DSH report that they are less effective at staying busy while incarcerated experience more distress as a result of their inability to use their time in prison productively (Dear et al., 2001; Fleming et al., 1989). These inmates report that DSH is not only used in an instrumental manner to relieve boredom, but also as a means of increasing the levels of attention that prison staff pay to the person engaging in DSH (Fleming et al., 1989).

A different set of distinctive factors found in the prison environment have to do with the ways in which inmates relate to one another and to correctional staff. For example, there is a social hierarchy commonly found in prison, there is the strong emphasis placed on one's reputation, and there are potentially severe consequences that

result from interpersonal conflict in prison. It was found that inmates who engaged in DSH reported higher rates of vulnerability, and they "reported poorer relationships with other prisoners and with staff, were more likely to have experienced threats and intimidation from other prisoners (on self-report), and were more likely to have a history of conflict with other prisoners and with other staff" (Dear et al., 2001, p. 288).

The absence of encouraging and affirmative social relationships, a high amount of distress as a result of the prison environment and experiences, and the apprehension associated with fearing for safety are all recognized as risk factors for suicidal behavior and DSH behavior within the correctional setting (Jeglic et al., 2005). Personal reputation has also found to be important in prison. Inmates who exhibit a higher degree of concern about their reputation, those who are less able to deal with the stressors of prison life, and those who have negative attitudes towards prison staff and prison life are more susceptible to exhibit suicidal behaviors and DSH behavior (Cooper & Berwick, 2001). Research suggests that DSH behavior can be motivated by socially-based factors found solely in the prison setting.

The Role and Attitudes of Correctional Staff

According to Dear and colleagues (2000), "researchers have noted a desire among prison staff to distinguish between genuine suicide attempts and manipulative acts of self-harm in which the goal is to gain attention or force a change in one's circumstances" (p. 160). The literature suggests there are two important reasons to differentiate these behaviors: to ensure each behavior receives the appropriate response and treatment, and because of the negative stigma associated with staff members who are perceived to have been manipulated by an inmate.

The aversion correctional staff demonstrate pertaining to being manipulated by inmates has been documented in the literature: "prison staff appears to operate a distinction between genuine and 'non-genuine' forms of self-harm, with the latter being perceived – and strongly resented – as manipulative and exploitative" (Marzano et al., 2012, p. 2). Some correctional staff perceive inmates who engage in repeated superficial self-harm or convey they are feeling suicidal as manipulative and calculating for a desired outcome (Cummings & Thompson, 2009). Many problems have been identified and associated with minimizing these types of behaviors, specifically that correctional staff are not properly trained or supported, and subsequently, are particularly prone to having negative attitudes towards inmates who engage in repeated DSH (Marzano et al., 2012). Some scholars even note that the vast majority of correctional staff are ill-equipped at managing DSH behaviors (Kaminski & Smith, 2009; Smith, 2013).

Negative correctional staff reactions to inmates who engage in DSH often lead to additional self-harming behaviors as inmates might feel less supported, lonelier, and experience more emotional distress (Marzano et al., 2012). Further, correctional staff who believe inmates are manipulating or not actually suicidal might not refer the inmates to mental health staff for an evaluation, which can result in serious negative outcomes (Cummings & Thompson, 2009). This is particularly problematic because correctional security staff are not professional mental health staff, and the failure to refer inmates in crisis to proper mental health staff could result in the inmate escalating in severity of self-harm behavior. This could lead to more serious self-injuries or even accidental death as the inmate was not allowed access to mental health care, and felt the need to continue to

increase their DSH behavior to get their needs met or get access to mental health services (Cummings & Thompson, 2009).

When correctional officers exhibit negative attitudes towards inmates, or they perceive DSH behavior to be manipulative and fail to refer the inmate to mental health staff, conflict could develop between staff and inmates. An important aspect of the impact that correctional staff attitudes and roles have on inmates who engage in DSH is the occurrence of power struggles between staff and inmates. Power struggles often ensue between correctional staff and inmates who engage in DSH for motives that are perceived (by staff) as manipulating or disingenuous (Reisner et al., 2013). Research indicates, "Clinicians seem to lose sight of the conceptualization of DSH as an attempt to control psychological distress and, instead, view the behavior as psychological blackmail" (Mangnall & Yurkovuch, 2008, p. 182). These types of perceptions among correctional staff, the corresponding negative attitudes, and the negative emotional reactions staff exhibit towards DSH behavior often leads to poor treatment outcomes, poor inmate management decisions, and continued DSH behavior (Kenning et al., 2010; Reisner et al., 2013).

A large quantity of the research directed at examining the roles and attitudes of correctional staff towards inmates who engage in DSH has found confirmation of the existence of labeling and negative attitudes among correctional staff (Kenning et al., 2010). Although there is minimal research directed at examining staff response to DSH behavior, studies show that mental health staff are often not prepared or trained properly to treat offenders who engage in DSH behaviors (Smith & Kaminski, 2011). Accordingly, mental health staff may view inmates who engage in DSH as malingerers

who are attempting to manipulate their circumstances rather than as being in psychological need. As a result, mental health staff might develop hostile, apathetic, or even rejecting responses and attitudes towards inmates who self-harm, which could result in escalated DHS behaviors or other negative outcomes (Kenning et al., 2010; Smith & Kaminski, 2011).

Correctional officers also exhibit negative attitudes towards inmates who engage in DSH (Kenning et al., 2010; Short et al., 2009). Like their counterpart in correctional mental health, correctional officers frequently view DSH as manipulatively calculated behavior aimed at obtaining some secondary gain or change in their status (Smith, 2013; Snow, 1997). Further, many correctional officers report that they feel ill-equipped in terms of managing inmates who self-harm for manipulative reasons (Kenning et al., 2010). Despite their feelings of inadequacy about their ability to manage DHS, some academics recognize the important perspective correctional officers provide when managing inmates who engage in DSH. Short and colleagues (2009) note that,

> the amount of time [correctional officers] spend with prisoners means they may be the only staff able to notice a change in any individual's behavior, and are likely to know about new crisis situations that the prisoner might be experiencing, which may be antecedents to an act of self-harm. (p. 409)

Correctional officers can therefore play important roles not only in recognizing inmates who are at risk of engaging in DSH, but also in providing valuable insight related to the best treatment and management responses when inmates engage in DSH (Kenning et al., 2010; Short et al., 2009).

Correctional officers often can establish good rapport with inmates because of the substantial amount of time officers spend with inmates. However, correctional officers often report a struggle due to what they perceive to be a conflict between their vastly different assigned duties. Correctional staff often find themselves as "supervisors, custodian, disciplinarian, administrator, observer, manager, or mentor" (Short et al., 2009, p. 409). Correctional officers also report frustration in terms of having to balance their safety and security roles with the expectations of them to be a mentor or in a supportive role (Short et al., 2009). Research suggests that the more focus a correctional officer places on the security aspects of their work duties, the more resistance and conflict they experience with inmates, which increases the probability of developing negative attitudes toward inmates (Williams, 1983).

Correctional officers who develop conflict and negative attitudes towards inmates have an impact on DSH among inmates. When correctional staff exhibit attitudes that are negative and hostile, DSH behavior is often reinforced, which could result in an increase in quantity and severity of inmate DSH behavior (Short et al., 2009). The impact of negative attitudes from correctional officers on DSH in a cyclical process: The negative attitudes displayed by officers leads to inmates feeling unwanted emotions, which instigates the inmate to engage in DSH as a means to decrease or obviate negative the feelings and emotions. As such, the DSH are reinforced, which makes the DSH more likely to occur in the future under similar conditions when inmates perceive negative and hostile attitudes from correctional officers (Chapman et al., 2006; Short et al., 2009).

Manipulative Motives for DSH in Prison

Inmates who ordinarily feel as though they have no power or control over their circumstances abruptly feel as though they have some influence over their status when they engage in DSH (Gitlin et al., 2007). This is due to the fact that correctional staff have to respond to the inmate's medical needs, even if the self-inflicted injury is superficial. The bulk of DSH behavior in the correctional setting results in non-medically serious injuries, and as such, are viewed as manipulative (Dear et al., 2008). However, engaging in DSH become an effective and calculated way for inmates to get their needs met or obtain a desired outcome.

There are a number of possible reasons an inmate might turn to DSH as a means to change his or her status. First, DSH behavior often results in a trip to the prison medical unit, or if the self-inflicted injury is severe enough, the inmate might be sent to a community hospital for treatment. Second, inmates often engage in DSH for secondary gain for reasons such as: to obtain a transfer to another housing unit or complex, to convey they need help or their needs met, or draw attention to conditions they view as unbearable. When inmates engage in DSH for these reasons, correctional staff are often forced to find ways to meet the needs of the inmate in an attempt to get the inmate to stop self-harming. These practices reinforce the inmate's DSH behavior and often leaves the inmate feeling as though he or she has leverage or control over their circumstances, or as though they were able to successfully manipulate correctional staff, administrators, or the system as a whole (Fleming et al., 1989; Farmer et al., 1996; Gitlin et al., 2007; Lohner & Konrad, 2006).

Nonmanipulative, Emotional Motives for DSH in Prison

DSH and suicide attempts are strongly associated with completed suicide (Short, et al., 2009). In terms of the correctional setting, prison inmates engage in more DSH and are at a higher risk to complete suicide when compared to the general population (Fleming et al., 1989; Jeglic et al., 2005). Also, incarcerated individuals who report high rates of depression are associated with engaging in acts of self-harm that are serious and result in severe injury (Lohner & Konrad, 2006). Further, SMIs are housed in prison at exceptionally disproportional rates when compared to the community, and are often diagnosed with mental illnesses that lead to self-harming behavior in response to delusions or command hallucinations (Chapman et al., 2006; Litschge & Vaughn, 2009). These factors contribute to the notion that sometimes inmates engage in self-harm due to a genuine psychological needs or for non-malingering reasons.

In summary, despite correctional staff often viewing DSH as manipulative, DSH and suicide attempts are considered risk factors for completed suicide, which poses a problem for correctional staff as they have the fiduciary responsibility to protect inmates and provide them with adequate medical or mental health services (Lohner & Konrad, 2006; see also, e.g., *Bowring v. Godwin*, 1977; *Ruiz v. Estelle*, 1980). As such, it is important to not only determine what DSH means for those who engage in the behavior, but also how DSH behavior is understood by the correctional staff who are tasked with engaging with and treating prison inmates (Snow, 1997). The literature also highlights the importance of understanding the functional reasons that motivate DSH behavior among the inmate population so staff can glean information on best treatment and management practices for the correctional setting (Klein, 2012).

The Importance of Correctional Agencies Examining the Contributing Factors to DSH

Although there is scant research on DSH in the correctional setting, the literature suggests that a small number of inmates who engage in frequent DSH are often responsible for a disproportionate amount of DSH events (Smith & Kaminsky, 2011). This research is corroborated by criminal career research that indicates that a small number of people are responsible for a disproportionate amount of crime. This research suggests that identifying these individuals early in their criminal career can result in a reduction in the amount of crime they commit (Petersilia, 1980). This concept easily translates into DSH in the correctional setting: Identifying individuals who engage in high rates of DSH early in their self-harming "careers" can lead to targeted treatment and ultimately, the prevention of dangerous DSH behaviors.

The early identification of inmates who engage frequent DSH is particularly important because these types of individuals are at a higher risk to complete suicide when compared to the general population (Fleming et al., 1989; Jeglic et al., (2005). Additionally, in comparison to inmates who do not engage in DSH, those who self-harm ay high rates exhaust a disproportionate amount of staff and monetary resources (Smith & Kaminsky, 2011). Even a small number of inmates who engage in DSH can create significant challenges to prison staff and threaten institutional safety. As such, correctional agencies would benefit from better understanding how the prison environment, staff and inmate interactions, and treatment opportunities impact DSH among inmates.

Research suggests there is no straightforward explanation for DSH in the prison setting. According to Fazel, Ramesh, and Hawton (2017), DSH behavior and suicidal behavior are "likely to be due to complex interactions between individual-level and ecological factors" (p. 952). As such, it is a moral imperative for academics and practitioners to examine the factors that contribute to these higher rates of DSH and suicidal behavior. Determining the prison environment characteristics that lead to high rates of DSH behavior is important for both theoretical and practical reasons.

In terms of theory, ELT suggests that inmates engage in DSH behavior because they reflect on their previous experiences when they got their needs met by engaging in self-harm. ELT also suggests that as inmates continuously test their environment, they come to determine that DSH behavior allows them to feel a sense of control over their circumstances, to change their situation, or gain a desired outcome; thus, DSH is reinforced and will occur again under future similar conditions. Once DSH behavior is reinforced for an individual in the prison setting, it is likely that that individual will continue to engage in self-harming behavior at a high frequency as a means to obtain their desired outcome until an appropriate intervention is provided to the inmate. This research project seeks to glean information on self-harm events that occur statewide within the Arizona Department of Corrections for the purpose of making policy and treatment recommendations to correctional staff to benefit the inmate, the staff, and the system as a whole.

There are also several practical reasons for examining DSH in the correctional setting. First, more information on what contributes to DSH in the prison setting could inform correctional staff in terms of what changes need to be made in the environment in

order to decrease the need inmates feel to engage in self-harming behavior. Second, understanding what aspects of the correctional environment contribute to DSH behavior could inform medical staff on which treatments might work best to address DSH behavior. Additional research on this topic can also lead to recommendations for correctional agencies in terms of how best to help inmates unlearn problematic behaviors. More research could also inform prison administrators on which types of educational, religious, or work programs should be implemented to help inmates not only fill their time, but also to provide an alternative opportunity for positive interactions with other inmates and correctional staff.

Research Questions in Light of Available Data

Ideally, each of the important aspects of DSH in the correctional setting discussed in the literate review would be explored in the analysis portion of this dissertation. However, the dataset used for this dissertation does not allow for the testing of each factor discussed in the literature review. This is largely due that fact that this dissertation is exploratory in nature, and the purpose of these data and dissertation is to begin to focus research and practitioner attention on an important topic: DSH in the correctional setting.

Several points made in the literature review do correspond to variables included in the dataset. For example, institutional characteristics and stressors will be tested by analyzing the patterns of DSH events at different prison complexes and custody levels. The motives for DSH behavior— such as manipulative motives or non-manipulative/emotional motives— will be examined by using variables that were assigned to represent the reason the inmate engaged in DSH behavior. And finally, the impact that mental health illnesses have on DSH behaviors will be examined using

content analysis for inmates who are identified as frequently engaged in high rates of DSH behaviors.

With these caveats concerning the available data in mind, this exploratory study focuses on attempting to answer four primary research questions:

1. Are there general factors within the correctional environment (e.g., certain times of the day, custody levels, days of the week, and quarters of the year) that contribute to higher or lower rates of DSH?
2. What are the common motives and reasons for self-harm, and which methods of self-harm are often used in the correctional setting?
3. What are the common characteristics, if any, of people who engage in frequent self-injurious behavior in the correctional setting?
4. Do inmates who engage in high rates of DSH experience an increase or decrease in such behaviors when they are moved to a new environment or location within correctional settings?

CHAPTER 3

METHODOLOGY

Data analyzed in this dissertation were gathered by the Arizona Department of Corrections (ADC). The ADC began gathering these data in 2018 to better understand the self-harming events that occur among inmates in state and private prisons, and to ensure all self-harm events that occur in the prisons operated by the ADC were systematically recorded. To complete that task, correctional mental health staff gathered information on and reported every self-harm event that occurred in all 16 prisons in Arizona starting on July 1, 2018. In addition to the self-harm event, staff reported the inmate ADC number, the name of the inmate, and whether or not the self-harm event was a suicide attempt or deliberate self-harm behavior. To determine whether the self-harm event was a suicide attempt or non-suicidal act of DSH, correctional mental health staff relied on inmate self-reports as well as the professional judgement of clinical staff who evaluated the lethality of the self-harm event and whether the self-harm event required medical care and, if so, to what degree. Inmates who completed suicide within the timeframes these data were gathered were excluded because completed suicides were beyond the scope of ADC's project on DSH.

Self-Harm Event Data Collection Process

The self-harm events were gathered on a daily basis. Every self-harm event that occurs in each prison complex daily is reported, compiled, and recorded into one location by one staff member each day. At the end of every month, these data are finalized by checking for accuracy. Data that was initially left blank (in error by staff) or events that needed additional evaluation were retroactively gathered from them the electronic

medical record and reported. The self-harm event data is kept in one continuous master log.

There are three primary reporting mechanisms that staff use to gather information on self-harm events. The first is by evaluating an inmate's electronic medical record for events of self-harm that were reported to medical and mental health staff and documented in the inmate's medical record. The second is by inmate report of self-harm events they engaged in, but were not documented in the inmate's medical record. Mental health staff compile the self-reported self-harm events daily. Last, to capture events that were not documented in the medical record (by error or because medical and mental health staff were never notified), staff go through ADC's Significant Incident Reports (SIR) to gather any events that were reported to correctional security staff, but not medical or mental health staff.

This dissertation is a 13-month study that uses ADC's self-harm data. The timeframe included in this dissertation began on September 1, 2018 to September 30, 2019. This time period includes 2,845 self-harm events. To ensure the confidentiality of the inmates included in this dataset, each inmate was assigned an individual randomly generated number, and any identifying information was removed.

Demographic Variables

Clinical staff gathered demographics such as the inmate's age, biological sex, transgender status, and race/ethnicity. Age was coded two ways, the first was the inmate's chronological age in years as calculated from date of incident and date of birth, and the other was the age group to which the inmate belonged based on the age-crime curve and age of desistence commonly found in the criminology literature. These theories

were chosen for these analyses due to the link between the age of the offender and rates of deviant behavior (Laub & Sampson, 2001; Steffensmeier, Allan, Harer & Streifel, 1989).

Table 1: Demographic Characteristics

Demographic Categories	Number of Self-Harming Individuals (%)
Race/Ethnicity	
White/European-American	263 (40.65%)
Asian/Pacific-Islander	3 (0.46%)
Black/African-America/Caribbean Islander	80 (12.36%)
Mexican/Mexican-American	241 (37.25%)
Native American	44 (6.80%)
Other	16 (2.47%)
Sex	
Male	577 (89.18%)
Female	70 (10.82%)
Gender Identity	
Cisgender	635 (98.14%)
Transgender	12 (1.86%)
Age Group	
25 years old or younger	68 (10.51%)
26 years old to 35 years old	269 (41.58%)
36 years old to 45 years old	197 (30.45%)
46 years old or older	113 (17.47%)

It is important to note that the race/ethnicity types are based on ADC categories which, unfortunately are somewhat dissatisfactory for two reasons. First, ADC codes inmates into categories that conflate race and ethnicity. Second, data on ethnicity is not even gathered in accordance with whether someone is of Latinx heritage broadly—only whether they are of Mexican decent; other Latinx ethnicities are not captured by ADC data.

Time and Location Variables

Multiple time-related and location-related variables about each self-harm event were gathered in addition to the demographics listed above. The time-related variables were broken down further to show the number of events that occurred based on the time of day, which generally follows the shifts that correctional officers work, the months the DSH events occurred during, and the day of the week that the DSH occurred during. The location-related variables were similarly broken down further to indicate at which prison complex the DSH event occurred, and in which custody level the event occurred.

Method of and Reason for DSH Variables

Each self-harm incident entry also contained a few incident-specific variables, including the method of the self-harm, the stated reason of the self-harm. The method of self-harm was coded by clinical staff based on their observations. The primary reason for the self-harm behavior was coded using the five categories set forth by Aufderheide (2004) in his work on "Serial Self-Injury Profiling" in his role as the Director of Mental Health Services for the Florida Department of Corrections.

Analyses by Individual

From the incident-based data set, an individual-based data set was generated, removing all incident specific data (time, date, location, etc.) and adding the number of attempts for each individual from the random identification number. In order to maintain some information about the reason and method of DSH, the most common method and reason for DSH was determined. For example, this process will allow for the examination how many self-harm events each individual engaged in, how many inmates engaged in

different rates of self-harm, and other individual-based comparisons with the variables included in the data set.

For the purposes of selecting individuals to do a more in-depth qualitative analysis of the characteristics related to extreme levels of self-harming, individuals were divided into five levels of DSH frequency: single, low, medium, high, and extreme. As the name suggests, persons who engaged in only one act of DSH were coded in the "single" act category. Subsequent divisions between low, medium, high, and extreme levels of DSH were demarcated by the number of standard deviations from the statistical mean of the DSH events in the research sample as explained in Table 2.

Table 2: Levels of DSH

Level of DSH	*Number of DSH Events*	*Rational for Cut-off Point*
Single	1	One DSH event.
Low	2 – 4	The number beyond a single DSH harm event, up to the mean number of DSH events.
Medium	5 – 14	The number of DSH events within one standard deviation above the mean number of DSH events.
High	15 – 25	The number of DSH events between one and two standard deviations above the mean number of DSH events.
Extreme	26 and higher	The number of DSH events beyond two standard deviations above the mean number of DSH events.

Ethnographic Content Analysis by Individual Inmate

Out of the 2,844 events of self-harm behavior in this dataset, several inmates (n = 25) stand out in terms of the frequency in which they engage in self-harm behavior. To

better understand inmates who engage in extremely high rates of self-harm behavior, a frequency distribution identifies inmates who engaged in exceptionally frequent rates of self-harm during the 13-month time period (see Chapter 4). These identified inmates will be examined in-depth using ethnographic content analysis. This method of analysis is suitable due to the fact that multiple inmates will be evaluated using several different types of narrative documents and other relevant data sources.

Step One

The dataset was organized in a manner that enabled the identification of inmates who engaged in extremely high-rates of self-harm behaviors over the 13-month time period captured in this dataset. Twenty-five "extreme user" inmates were determined statistically for the content analysis portion of this dissertation. The inmates identified as extreme users engaged in so many DSH events that the number of events they were responsible for was two or more standard deviations above the mean number of DSH events.

Step Two

Using ADC spreadsheets and the ADC website, multiple characteristics were identified and used to examine the 25 inmates who engage in the highest rates of self-harm behavior. These factors include basic demographic information, relevant family background information, past and current criminal convictions, housing locations, protective custody status, and gang affiliation (if any).

Step Three

Step 3 consists of a more in-depth analysis of the 25 extreme users. To complete this analysis, each inmate's medical chart will be used to determine mental health

diagnoses, detailed reasons for the DSH event, time, date and location information about the DSH event, and the method of the DSH event. This step will also consist of identifying other pertinent information from the inmates themselves about the DSH event, and staff observations that were documented in clinical notes.

Step Four

During this step, significant themes and prevalent patterns will be identified. These findings will be discussed in the results section of this dissertation. Along with a content analysis for each of the 25 inmates, those individual inmates will be compared and contrasted to determine parallels in terms of the reasons why they engage in DSH, the mental health-based factors that might lead to their DSH behavior, and environmental factors that could contribute to their high frequency of DSH.

Inter-rater Reliability Issues

In order to address inter-rater reliability issues, during the coding process, other ADC personnel were used to ensure there was a consensus regarding important coding decisions such as diagnosis and reason for DSH. Agreement between two staff members was acceptable. However, if those two staff disagreed, a third ADC staff member was consulted with regarding the coding issue, and that person broke the tie. This process ensured consistency in terms of correctly coding important factors pertaining to the extreme user group.

CHAPTER 4

RESULTS

This first part of this chapter presents descriptive and demographic information about the inmates included in the dataset. These results help to answer Research Question #1: Are there general factors within the correctional environment (e.g., certain time of the day, custody levels, days of the week, and quarters of the year) that contribute to higher or lower rates of DSH? And they also address Research Question # 2: What are the common motives and reasons for self-harm, and which methods of self-harm are often used in the correctional setting?

The second part of this chapter addresses Research Question # 3 by presents the characteristics of the people who engage in frequent self-injurious behavior in the correctional setting. That part of the chapter also reports the qualitative data that helps to answer Research Question #4 by analyzing whether the inmates who engage in high rates of DSH experience an increase or decrease in such behaviors when they are moved to a new environment or location within correctional settings.

Descriptive Results

Demographic Data

The DSH event data from demographic variables are presented in Table 3 both in terms of the number of individuals who engaged in DSH in a given category, and the total number of DSH events in which individuals in a given category engaged:

Table 3: Demographic Characteristics and DSH Events

Demographic Categories	Number of Self-Harming Individuals (%)	Number of Self-Harm Events (%)
Race/Ethnicity		
White/European-American	263 (40.65%)	1,152 (40.51%)
Asian/Pacific-Islander	3 (0.46%)	4 (0.41%)
Black/African-America/Caribbean Islander	80 (12.36%)	467 (16.42%)
Mexican/Mexican-American	241 (37.25%)	1,026 (36.08%)
Native American	44 (6.80%)	148 (5.20%)
Other	16 (2.47%)	47 (1.65%)
Sex		
Male	577 (89.18%)	2,637 (92.72%)
Female	70 (10.82%)	207 (7.28%)
Gender Identity		
Cisgender	635 (98.14%)	2,764 (97.19%)
Transgender	12 (1.86%)	80 (2.81%)
Age Group		
25 years old or younger	68 (10.51%)	231 (8.12%)
26 years old to 35 years old	269 (41.58%)	1,302 (45.78%)
36 years old to 45 years old	197 (30.45%)	802 (28.20%)
46 years old or older	113 (17.47%)	509 (17.90%)

Table 3 demonstrates that there are some minor demographic differences in terms of how many individuals are responsible for how many events. People of most racial or ethnic backgrounds engage in DSH at roughly the same rates that they are represented in the sample. The same, however, is not true for Black/African-American/Caribbean Islanders; 80 members of this racial group were responsible for 467 (16.42%) of DSH events, indicating they engaged in a slightly higher number of DSH events per capita than people from other backgrounds. It is important to note, however, that the demographic breakdown of individuals included in this dataset mirrors the demographics of people incarcerated within ADC. As a result, it may be that demographic characteristics are not meaningfully associated with DSH.

In terms of sex, there were 70 (10.82%) female inmates who self-harmed, but those 70 individuals only represented 207 (7.28%) of DSH events when broken down by sex. This suggests that female inmates may engage in fewer DSH events per capita than their male counterparts. Similar differences are present in the gender identity and age group categories in Table 3. Specifically, there were only 12 transgender inmates who were documented to self-harm during this study, representing 1.86% of the inmates broken down by gender-identity; however, those individuals engaged in 80 DSH events (2.81%). This indicates that the transgender inmates in this study engaged in an average of 6.67 DSH events over the course of the study, whereas cisgender inmates noted in this study engaged in an average of 4.35 DSH events over the course of this study. As will be subsequently addressed in more detail, the present study was able to group inmates by the number of DSH events in which they engaged. The average transgender inmate would be categorized as a medium-frequency self-harmer, whereas the average cisgender inmate would be categorized as a low-frequency self-harmer.

Time and Location of DSH Events

The five prisons shown in Table 4 were chosen because they represent 90% of the DSH in the 16 Arizona state prisons. The custody level data is heavily skewed toward maximum custody, which is in part due to the ADC procedures for DSH events. When an inmate engages in DSH, they are put on a mental health watch. All mental health watches are considered maximum custody, which means that if an inmate engages in DSH more than once in a short period of time, the later events are all categorized as having occurred in maximum custody regardless of where the inmate was originally housed. The DSH

event data from time-related and location-related variables are presented in Table 4 in terms of the number of DSH events that occurred in a given time frame or location:

Table 4: Time and Location Characteristics and DSH Events

Time and Location Categories	Number of Self-Harm Events (%)
Time Range of DSH Event	
12 AM to 5:59 AM	227 (8.96%)
6:00 AM to 11:59 AM	696 (27.47%)
12:00 PM to 5:59 PM	910 (35.91%)
6:00 PM to 11:59 PM	701 (27.66%)
Quarter of DSH Event	
January-March	566 (19.90%)
April-June	614 (21.59%)
July-September	874 (30.73%)
October-December	790 (27.78%)
Day of DSH Event	
Sunday	397 (13.96%)
Monday	456 (16.03%)
Tuesday	427 (15.01%)
Wednesday	410 (14.42%)
Thursday	373 (13.12%)
Friday	416 (14.63%)
Saturday	365 (12.83%)
Prison Complex	
Eyman	542 (21.16%)
Florence	479 (18.70%)
Lewis	914 (35.68%)
Phoenix	336 (13.11%)
Tucson	291(11.36%)
Custody Level	
Minimum	41 (1.44%)
Medium	145 (5.10%)
Close	312 (10.97%)
Maximum	2345 (82.48%)

Table 4 shows some distinctions in the time and location that were more frequently associated with DSH events, namely the time of day, the day of the week,

quarter of the year, and the custody level that the DSH occurred at. Most state prisons have two shifts for security staff; the "day shift" runs from 6:00am to 6:00pm and the "night shift" runs from 6:00pm to 6:00am. By contrast, mental health staff is primarily present from 7:00 am to 5:00pm. Notably, 1,606 (63.38%) of DSH events with documented time values occurred during the day security shift when higher numbers of security staff are working and when medical and mental health staff are present. This indicates that inmates are most frequently engaging in DSH during the times that they are most likely to be observed self-harming. Also, given that ADC policy requires that mental health staff and security respond in-person to inmates in crisis, self-harming during the day leads to increased attention and personnel response. This seems to indicate that the DSH events during this time are most likely to be instrumentally motivated.

Because the data presented in Table 4 includes DSH events from two separate Septembers, the values in the quarter from July through September are artificially higher, whereas the 790 (27.78%) DSH events occurring in the quarter that runs between October and December seem to represent a higher frequency than both the January through March quarter and the April through June quarter, which represent 566 (19.90%) and 614 (21.59%) DSH events, respectively. The October through December quarter includes multiple culturally significant holidays, such as Thanksgiving, Christmas, Hanukkah, and Kwanzaa. On an anecdotal basis, prison medical and mental health staff have long associated those holidays with higher levels of self-harm. The present research, however, is the first to document that relationship empirically.

During this study, inmates were not allowed to be taken off mental health watches during the weekends. Table 4 demonstrates that Saturdays and Sundays were two of the

three lowest frequency days of the week for DSH, representing 365 (12.83%) and 397 (13.96%) of DSH events, respectively. By contrast, Mondays had the highest frequency of DSH events, representing 456 (16.03%) DSH events. This seems to indicate that inmates are less likely to self-harm when they cannot be taken off of a mental health watch, whereas they are more likely to self-harm when they can be taken off of a mental health watch. This lends further support to the notion that DSH is instrumentally motivated (see also Table 5).

Table 4 also demonstrates an overwhelming number of DSH events occur in maximum custody. But this is slightly misleading. Although 2,345 (82.48%) of DSH events occurred in maximum custody prison yards, this includes inmates on a mental health watch. When inmates deliberately harm themselves, they are immediately moved to a mental health watch unit, which is always considered a maximum custody setting. Therefore, a minimum-security inmate who self-harms more than once would have all except for the first DSH act listed as a maximum custody event.

Method of and Reason for DSH

Event data for the methods and reasons for DSH events are presented in Table 5.

Table 5: ADC Codes for Inmate DSH Incidents

Self-Harm Type Categories	Number of Self-Harm Events (%)
Method of Self-Harm	
Blunt Force	730 (25.78%)
Overdose/Ingestion/Insertion	422 (14.9%)
Cutting/Burning/Biting	1435 (50.67%)
Hanging/Strangulation	220 (7.77%)
Miscellaneous	25 (0.88%)
Reason for Self-Harm	
Instrumental	2212 (77.78%)
Tension Reduction/Mood Regulation	329 (11.57%)
Command Hallucinations	167 (5.87%)
Suicidal	64 (2.25%)
Unknown	72 (2.53%)

The most common method of DSH was cutting/burning/biting, which included 1,435 (50.67%) of self-harm events. Part of the reason that the frequency of cutting/burning/biting is so high is that inmates can always self-harm in this method, even if they are on a mental health watch. For this study, superficial scratches, cuts, and bites were included in this category. This means that if an inmate rubbed their arms vigorously against a concrete edge, or lightly bit their arm, those events would be included in this category, which matches the findings in Table 5 concerning the method for self-harm.

There were 2,212 (77.78%) self-harm events that were clinically determined to be instrumentally motivated. As the qualitative results present later in this chapter reveal, inmates will frequently self-harm to be removed from a negative housing situation (e.g., the inmate perceives their safety is at risk, the inmate does not like his or her cellmate, or the inmate has a drug debt that they owe and cannot pay). An easy and effective way to get removed from such a housing situation is to self-harm in a superficial way, which

results in an Incident Command System (ICS) being activated, which is an emergency alert that disallows inmates from moving around in that area. When ICSs are activated for a self-harming inmate, that inmate is placed on a mental health watch in a secure watch cell. In later chapters, both the methods of and reasons for self-harm will be discussed in greater detail.

Transgender Inmates

As previously mentioned, there were 12 transgender inmates in the sample who were responsible for 80 self-harm events. Notably, nine transgender inmates engaged in a single self-harm event; two transgender inmates engaged in medium rates of self-harm; and one transgender inmate engaged in self-harm at an extreme rate. In fact, that one trans inmate accounted for 56 (70%) of the 80 DSH events committed by transgender inmates.

In terms of age group for transgender inmates, 64 (80%) out of 80 events were completed by inmates aged 45 years and older. And the vast majority of transgender inmates who engaged in acts of DSH did so for instrumental reasons; only two events (2.5%) appear to have been motivated by non-instrumental reasons.

Suicides

Although this dissertation's primary focus is on DSH in the correctional setting, due to the finality and seriousness of completed suicides, a brief discussion on the suicides that occurred is warranted. During the timeframe relevant to this study, eight inmates committed suicides. There are a few important findings worthy of note.

First, every suicide occurred by hanging/strangulation. Second each suicide occurred outside of regular business hours (Monday through Friday, between the hours of

8:00am and 5:00pm). Third, the vast majority of the suicides were male inmates; only one female completed suicide. Fourth, in terms of custody level, half of the suicides (*n* = 4) occurred in the maximum custody setting, two occurred in close custody, one occurred in medium custody, and one occurred in minimum custody. Fifth, six of the eight (75%) inmates who completed suicide only appeared one time in the 13 months captured by these data—when they completed suicide. They did not engage in other DSH behaviors prior to their deaths during this time period. The other two inmates (25%) who completed suicide were classified as low-frequency self-harmers because both had engaged in two DSH events during the 13-month time period examined. Notably, one completed suicide was a female inmate, and she engaged in cutting DSH behavior twice within the 13-month time period. The second completed suicide engaged in one cutting behavior and one blunt force event prior to his completed suicide.

These findings lend support to the notion that DSH and suicide are distinct concepts. Notably, the two inmates who engaged in DSH prior to their completed suicides did not engage in hanging/strangulation DSH behaviors; but rather, they engaged in cutting and blunt force self-harm behaviors. There is no evidence in the present study to support the notion that higher frequencies of DSH are related to completed suicide. Rather, as previously discussed, high numbers of DSH behaviors are associated with a desire to obtain a secondary gain or desired outcome rather than to kill oneself.

DSH Attempt Groups

As Figure 1 (below) illustrates, the majority of people in the research sample (*n* = 388; 59.9%) engaged in only one recorded act of DSH. Indeed, although the mean number of DSH events was 4.4 (SD = 10.17), single acts of DSH (*n* = 1) represented both

the median and mode number of events. Of the 647 people in the sample, 605 (93.5%) fell within one standard deviation of the mean, 622 (96.1%) fell within two standard deviations of the mean, and 25 (3.8%) people were more than two standard deviations above the mean, representing the most extreme category of frequent self-harmers.

Figure 1: Number of Inmates by Attempt Group

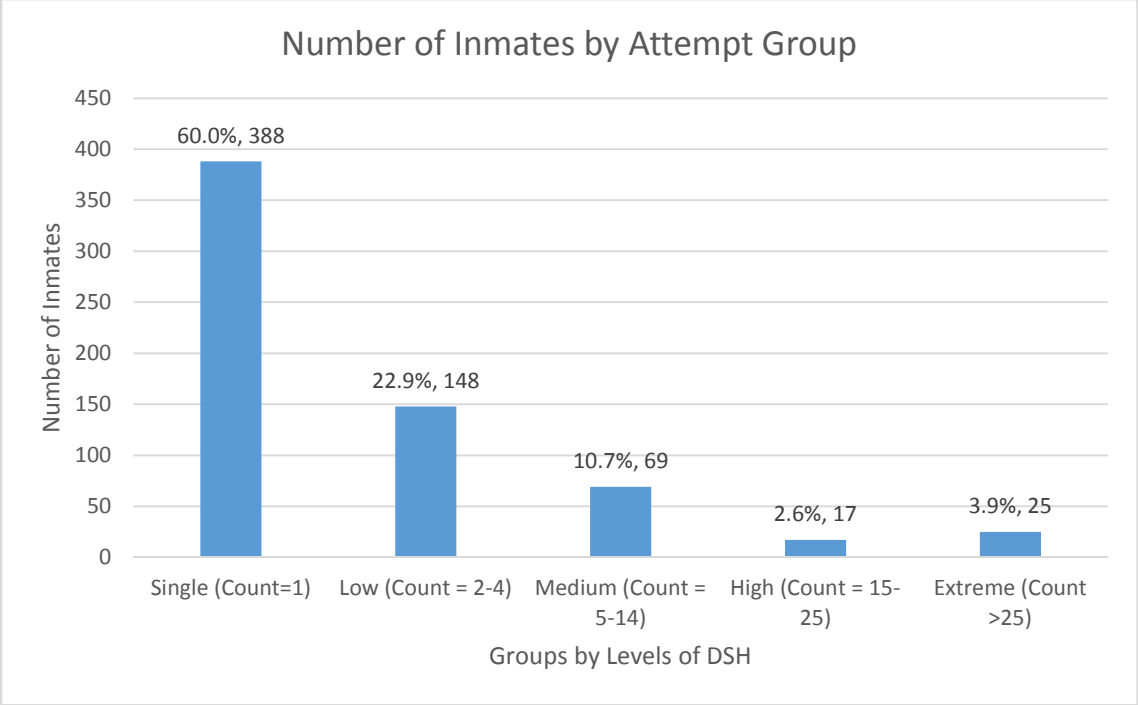
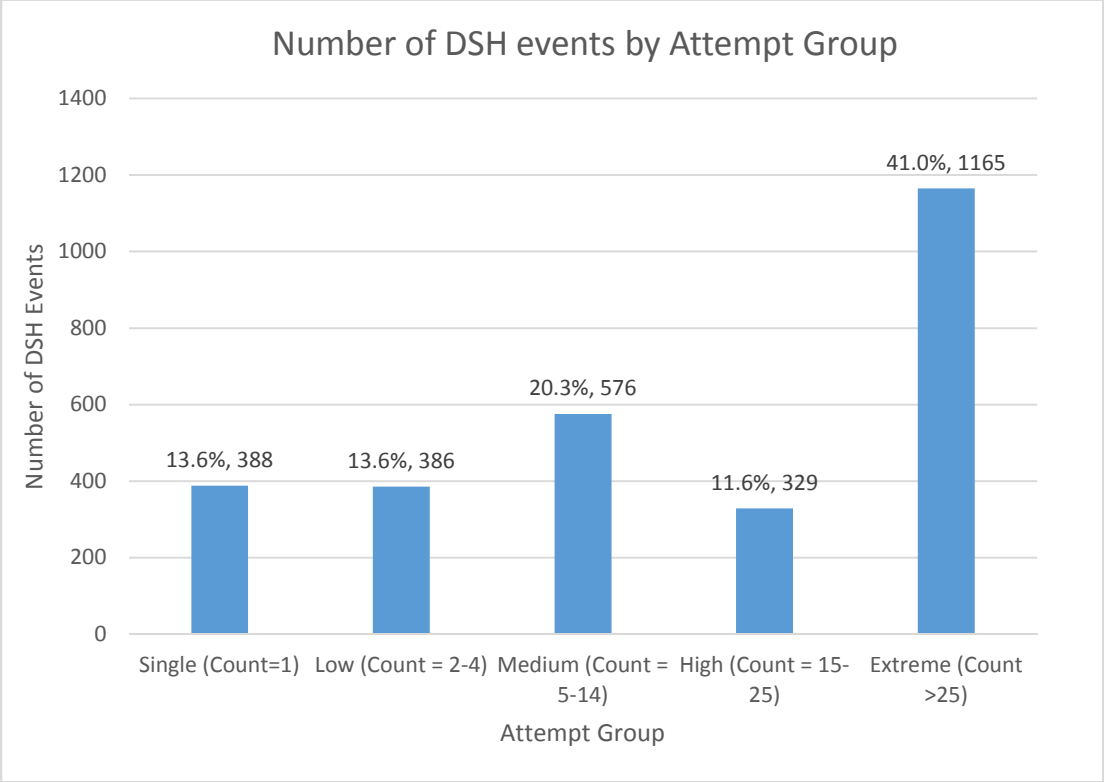


Figure 1 shows the number of inmates in each of the five frequency categories of DSH (n = 646). There was an average of 4.4 (±10.2) DSH acts or attempts per inmate. Although the high and extreme categories only represent 6.5% of self-harming inmates, those categories represent 1,494 self-harm events, constituting more than half (52.5%) of total DSH events in the dataset, which is illustrated below in Figure 2, followed by a more detailed breakdown of findings by attempt group level.

Figure 2: Number of DSH Events by Group Level



Single DSH Incidents

The analyses reveal that out of 647 inmates in this dataset, 388 (59.9%) engaged in a single known act of DSH. These inmates engaged in higher rates of ingestion/insertion/overdose and hanging/strangulation, but they engaged in lower rates of cutting/burning/biting. Importantly, and in sharp contrast to the inmates who engage in high and extreme levels of DSH, inmates who engaged in single acts of DSH did so far more frequently for reasons of mood regulation and suicide ideation, rather than for instrumental reasons.

Low Levels of DSH

A total of 148 inmates engaged in more than one known act of DSH, but nonetheless self-harmed at comparably low rates. Collectively, they were responsible for

386 (13.5%) of the 2,844 events in the dataset. They displayed lower rates of ingestion/insertion/overdose and of hanging/strangulation. Of the 148 low self-harming inmates, 41 had an indeterminate method of self-harm, meaning that no one method was more frequent than all other methods. This seems to be largely due to inmates with two DSH events, since if the two events have different methods, it was categorized as indeterminate for this study. Inmates in this category were less likely to commit DSH with suicidal ideation as the reason for their self-harming behavior, and high rates of indeterminate reasons for self-harm, probably for the same reason as for the high rate of indeterminate method for the low self-harming inmates.

Medium Levels of DSH

Out of the 2,844 total events, 69 inmates engaged in medium levels of DSH were responsible for 576 discrete events (20.2%). These medium-level self-harmers tended to display higher rates of cutting/burning/biting self-harming behaviors; however, they demonstrated lower rates of overdose/ingestion/insertion and of hanging/strangulation self-harming behaviors. The primary reason the inmates in the medium user category engaged in self-harm was due to instrumental reasons; however, these types of inmates displayed low rates of self-harm behaviors for the purpose of mood regulation. Inmates in this category engaged in self-harm behaviors due to suicide ideation, but this was not the primary reason reported for any individual in the medium category.

High Levels of DSH

A total of 17 inmates were categorizes as high-level self-harmers; they were responsible for 329 (11.5%) if the DSH events in the dataset. Only one individual in this group used hanging/strangulation as his primary method of self-harm. High users' reason

data was heavily skewed toward instrumental: 15 of the 17 high-level inmates engaged DSH of instrumental, whereas only one engaged in DSH for tension reduction/mood regulation reasons, and one engaged in DSH due to command hallucinations.

Extreme Levels of DSH

A small group of 25 people were responsible for a disproportionately large number of self-harming behaviors as evidenced by the fact that these people were responsible for 1,165 (40.9%) of the 2,844 self-harm events in the dataset. In general, these "extreme users" engaged primarily in cutting/burning/biting as their primary method of self-harm, whereas they had lower levels of overdose/ingestion/insertion. Further, all of these inmates engaged in DSH for instrumental reasons that are explored in more detail in the remainder of this chapter.

Qualitative Findings Concerning the Characteristics Associated with Extreme Levels of Self-Harm

As previously described, 25 of the 647 people represented in this dataset were identified for the ethnographic content analysis portion of this dissertation. These 25 people were chosen because each of these people engaged in so many acts of DSH that they fell more than two standard deviations above the mean in terms of the number of DSH events. Thus, they may be considered to be "extreme" in terms of the rate at which they engage in DSH behaviors.

Research Question #3 is concerned with identifying the common characteristics, if any, of the people who engage in such frequent levels self-injurious behaviors in the correctional setting that they may be considered "extreme" self-harmers. These data

presented in Table 6 helps to answer that question by presenting information on key demographic characteristics of the members in the extreme user group.

Table 6: Extreme User Demographics
n = 25

Race/Ethnicity		
	White/European-American	7 (28%)
	Asian/Pacific-Islander	0 (0%)
	Black/African-Americans/Caribbean Islander	7 (28%)
	Mexican/Mexican-American	9 (36%)
	Native American	2 (8%)
	Other	0 (0%)
Sex and Gender		
	Cisgender Male	23 (92%)
	Cisgender Female	1 (4%)
	Transgender (M to F)	1 (4%)
Age Group		
	25 years old or younger	2 (8%)
	26 years old to 35 years old	12 (48%)
	36 years old to 45 years old	7 (28%)
	46 years old or older	4 (16%)
Number of DSH Events		
	Average number of DSH events per person	46.6
	Median number of DSH events per person	41
	Highest number of DSH events in 13-month time period	125
	Lowest number of DSH events in 13-month time period	26
	Standard Deviation of DSH events for Extreme Users	22.3

The remainder of this chapter goes beyond demographic characteristics by analyzing the content of the medical files for each of these 25 extreme users. By using ethnographic content analysis, the researcher compared and contrasted the behaviors documented in the medical files of these inmates to identify salient similarities and differences. Several significant themes emerged in terms the severity of their DSH

behaviors, the methods used to engage in DSH, the reasons for having engaged in DSH behaviors, mental health disorders, and offense histories.

Offence History

Given the natural overlap between outward and inward violence, it is not surprising that the overwhelming majority of inmates who engaged in DSH with extreme frequency also have a history of violent criminal offenses. Specifically, 18 of the 25 inmates (72%) were either serving their then-current prison sentence for a violent crime or, alternatively, has previously been incarcerated for a violent criminal offense conviction. These offences included murder, aggravated assault, sexual assault, armed robbery, and manslaughter.

Four inmates out of the 25 extreme users are in prison for a murder or manslaughter charge. First, Inmate #15 is in prison for a manslaughter charge that involved brutally beating a homeless man in the head with a brick, over a pack of cigarettes. Before his victim died, Inmate #15 lit a cigarette in front of his victim, jammed the lit cigarette in his ear, and then proceeded to stab the victim's ear and chin with a knife. Notably, in addition to his manslaughter charge, this inmate has received seven additional sentences for physically assaulting correctional security staff and for spiting and throwing urine on correctional staff. Inmate #16 is in prison with a natural life sentence for second degree murder for an unprovoked stabbing of an innocent bystander at a bus stop.

Inmate #24 is also incarcerated for murder. This inmate was convicted of a second-degree murder charge that involved shooting his wife in the head execution-style in their garage with their children in the home. Inmate #13 is also in prison for two counts

of murder in the second degree. This inmate drank excessive amounts of alcohol and consumed cocaine before driving. Then then ran three stop lights and ultimately crashed into another vehicle carrying a married couple. The female occupant in the other vehicle was ejected from the vehicle and her body was found severed in half. Both occupants of the other vehicle died. The inmate reported he has nearly no recollection of the events. Inmate #20 is in prison for aggravated assault. Despite being only 25 years of age during the relevant time period, he had been convicted of three other aggravated assaults prior to this current charge.

Inmates #6, 7, 8, 9, 10, and 21 were all in prison for armed robbery. Inmates #6, 7, and 21 all robbed multiple people using a gun or a knife. Inmate #21 went on a three-day armed robbery spree that included multiple robberies; during one of these robberies, he tied up one person so she could not call for help. Inmate #10 and two accomplices forcibly entered the apartment of an individual that stole money from the inmate during a drug deal that went bad. The inmate ended up holding 10 people at gun point demanding cash and valuables until police arrived.

Inmate #3 is the only inmate in the sample who was in prison for a sexual office. He had broken into a 65-year-old woman's house, and held a knife to her throat, and demanded that she perform oral sex on him. When the woman refused, he raped her.

Severity of DSH Behavior

Among the 25 people who engaged in extreme numbers of DSH, the severity of their self-inflicted injuries varied. Nonetheless, these people appeared to follow one of three patterns. They either engaged in repeated acts of superficial DSH, graduated from lower to increasingly more severe levels of DSH, or they sustained acts of serious DSH.

At the outset, it should be noted that regardless of the category of self-harm level, every extreme user (n = 25) ensured their self-harm was highly visible and noticed by correctional staff. This was likely a function of that fact that when correctional staff detect DSH, they step in to ensure that the inmate engaging in DSH immediately receives treatment and attention from security, medical staff, and mental health staff. For example, Inmates #2, 3, 5, 10, 14, and 15 were all well-known cutters among correctional workers. They only cut themselves on noticeable areas of their bodies and they never make any attempts to hide their self-harming behaviors. Quite the contrary, many inmate verbally alert correctional staff of their self-inflicted injuries. This appears to serve a functional purpose, such as drawing attention to their needs or concerns, manipulating their housing assignments, or getting themselves out of a situation they perceived to be threatening to their own safety.

Most Extreme Amounts of DSH Were Nonetheless Superficial

More than half of the people who engaged in extreme levels of DSH inflicted only superficial injuries to themselves. Specifically, 13 of these 25 inmates (52%) repeatedly engaged in self-harming acts that were not serious, let alone life-threatening. Illustrative behaviors include making shallow cuts into one's skin or lightly banging one's head (or other body parts) against a cell wall.

For example, Inmate #15 had a history of cutting himself with potato chips, and inmate #4 cut himself with a dull piece of plastic or an ADC-issued plastic identification car. Both often cut themselves on highly visible areas of their bodies, such as the arms or wrists, but self-inflicted only a few minor cuts at a time. Moreover, in contrast to life-threatening deep vertical cuts, these inmates cut their wrists horizontally (i.e., across their

wrists) at shallow depths. Inmates #20 and #4 also engage in superficial "cutting," and often scratch themselves with their finger nails or at times a paint chip from their cell walls. They scratch themselves to leave a mark or draw a small amount of blood.

Similarly, Inmate #4 has an extensive history of inserting glass, metal, and plastic into his penis. He engages in this bizarre DSH frequently. Although bizarre, this type DSH is not considered lethal and does not pose a serious threat to his life. Also, Inmate #4 often immediately reported that he inserted an item into his penis, or engaged in that specific DSH behavior in front of correctional staff. Inmate #1 has also been known to insert foreign objects into his penis. This inmate frequently inserted pencils and pens into his penis, and then notified staff. Notably, Inmate #1 inserted writing utensils so far into his penis, that the items could no longer be seen or felt upon medical examination. As such, this inmate was frequently sent to off-site medical appointments to remove the items from his penis. Likewise, in terms of low lethality, Inmate #21 demonstrated a history of lightly banging his head on his cell front. Such behavior elicited immediate attention from correctional staff, but given the low impact levels, the minor impact attendant to low-velocity blunt force is unlikely to endanger a person's life.

Graduated Increases in DSH Severity Over Time

Six of the 25 inmates (n=6; 24%) engaged in DSH behaviors that increased in severity over time. Inmates # 5, 6, 11, 16, 17, and 25 all fall into this category. They began by vocalizing their intent to harm themselves, but did not actually follow through. They subsequently started to engage in superficial DSH behaviors. But these types of low-level harms were short-lived. Consider how these people progressed to committing more serious DSH behaviors, some of which were life-threatening.

For example, Inmate #5 did not routinely engage in self-harm when he first came to prison. Although this inmate engaged in DSH as a teenager, he rarely engaged in DSH when he was first incarcerated. The inmate initially reported to correctional staff he was experiencing suicide ideation which resulted in him being placed on a mental health watch. The inmate later reported he was attempting to escape his drug debt. Then the inmate graduated to scratching himself, and then the inmate began to superficially cut himself. Eventually, the inmate began cutting himself more seriously and more frequently; his wounds eventually came to regularly require sutures.

This inmate reported he used superficial DSH cutting behaviors as a way to get transferred to a mental health program in a complex he perceived to be safer than where he was housed when he began engaging in DSH behavior. Initially, the inmate scratched himself or superficially cut himself with an item only to the point that minimal medical care was needed to treat the inmate. However, as time progressed, the inmate engaged in frequent cutting behavior that escalated in severity. During one cutting episode, the inmate cut himself resulting in a three inch in length by one-inch deep laceration. The inmate manipulated his laceration and squeezed the skin around the cut to increase blood loss, and then spread his blood all over his cell walls, floor, and his clothing. Due to the inmate's high frequency of DSH (cutting his arm), and the severity his DSH developed into, the inmate was transferred to a mental health program at a new complex. The inmate has since completely stopped engaging in self-harm, and reported he no longer self-harms due to being able to talk with his son regularly and feeling like he's in a safe housing location. Notably, the inmate disclosed that his adult son engages in DSH (cutting).

Similarly, Inmate #16 reported he also began cutting in his teenage years, around the ages of 14 to 15 years old. Inmate #16 reported he began "running the streets" at the age of 13 or 14 years old, and began using, cooking, and selling methamphetamine. This inmate reported he was never hospitalized for his DSH behaviors during his teenage years, despite his parents finding him with a sheet tied around his neck on at least one occasion. The inmate reported his parents were mad at him, but not worried. The inmate reported he was arrested at the first time at the age of 21 years old for manufacturing drugs and received a 5-year sentence. During that time, the inmate stabbed another inmate and was subsequently denied parole. The inmate reported he did that entire prison sentence without engaging in DSH behavior.

Inmate #16 reported the first time he was hospitalized as a result of DSH behavior was in 2005 at the age of 33 years. The inmate reported he cut very deeply because he was incarcerated for an armed robbery charge and was "going through it [issues]." The inmate reported he primarily cuts to secure safe housing and to increase his custody level to increase his changes of having a single-man maximum custody cell, which is considered the safest housing status among the inmate population. The inmate reported he also has a "hit" [death threat] from the Mexican Mafia. The inmate reported he tattooed a Mexican Mafia "patch" on his leg without earning it. Notably, only people who "earn" a "patch" [tattoo] are allowed to have the patch on their body. If they don't earn that specific tattoo, which is earned by committing violent acts on behalf of the Mexican Mafia, the Mexican Mafia considers that to be disrespectful and the inmate is placed on a hit list. As such, given that the inmate did not earn his Mexican Mafia tattoo, his life in

endanger. This motivates the inmate to engage in DSH to ensure his safety to remain in a mental health program.

Inmate #16 reported he began self-harming again in 2017 when was incarcerated for murdering an innocent bystander at a bus stop. The inmate reported he self-harmed by seriously cutting himself for the sole purpose of getting to the hospital so he could attempt to escape prison. At the hospital, the inmate was found to have a stolen handcuff key in his rectum that he planned on using to uncuff himself to escape from prion. The inmate reported that once he began cutting it became addicted that he has not stopped cutting since. The inmate reports that cutting "feels good" and he enjoys seeing his blood. The inmate acknowledges that it is not a healthy way of dealing with issues, but it relieves his stress and allows him to obtain his desired housing outcomes.

Sustained, Serious Types of DSH

Some inmates engage in consistent patterns of DSH behavior; if they are going to engage in DSH, their behaviors are predictable and expected. These individuals also engaged in severe DSH behavior that is often shocking in nature. Many of the extreme user inmates (*n*=6; 24%) fall into this group. Inmates #3, 9, 10, 13, 22, and 24 illustrate those who are considered sustained, serious self-harmers. When these inmates engaged in DSH behavior, the level in which they engaged in self-ham was relatively stable and predictable.

For example, Inmates #3, 9 and 10 cut themselves. Inmate #9 and 10 they primarily cut their arms and neck at a consistent depth and size that usually necessitates stitches. During one cutting episode, Inmate #9 cut himself so seriously he had enough blood to write "this is just the beginning" in his blood on his cell wall. Inmate #10 has

been known to cut his arms more frequently than his neck, and when he cut his neck, he has been known to do jumping-jacks in his cell to ensure his blood flows more quickly out of his body and into his cell. Inmate #3 also routinely cut his arms. This inmate has several pre-existing scars on his arms where his veins are. As such, there were many cases during the study period that the inmate re-opened old scars on his arms (usually with a piece of metal) and bled profusely. Additionally, Inmate #3 has a 14 to 16-inch large scar on the inside of his thigh. This inmate regularly re-opened the scar and cut his thigh open with a sharp piece of metal; often the cut on his thigh was filleted open and the wound was usually between 14 and 16 inches long and 1 to 3 inches deep. When receiving treatment for his wounds, this inmate routinely moved his body in a way that his penis came out of his clothing or suicide smock when a female nurse was treating and examining his wound on his upper inner thigh. Notably, Inmate #3 is one of three sex offenders within the group of 25 extreme users.

Inmate #24 is one of five inmates who primarily engaged in blunt force DSH behaviors. This inmate regularly banged his head so hard on his cell window or wall, correctional security staff had to utilize chemical agents (pepper spray) to ensure the inmate would stop engaging in head-banging behavior. This inmate would frequently continue to engage in head-banging behavior despite security using chemical agents repeatedly on the inmate, so medical staff had to put a safety helmet and mitts on him in an effort to get him to stop self-harming. This frequently did not suffice, and the inmate was placed in a six-point restraint chair numerous times during the study timeframes to disallow him from continuing the engage in head-banging DSH.

In spite of the seriousness of the cutting and head-banging behaviors, it is important to note that these inmates rarely hurt themselves so seriously that they needed to be transported to a community emergency room for medical treatment. Often, prison medical personnel could attend to their injuries. But the same cannot be said for another group of inmates who repeatedly serious harmed themselves.

Inmates #13, 16, and 22 all engaged in sustained and extremely serious DSH that often required outside medical treatment. Inmate #13 primarily engages in cutting behavior. During one cutting episode. A medical staff member came to the inmate's housing cell to draw blood for a lab test that was ordered on the inmate. What staff were unable to see was that that inmate has seriously cut himself on the other arm. So, while medical staff were drawing blood out of one arm, the inmate was actively bleeding out of the other arm. Finally, when the blood was running out from under the inmate's cell door, correctional staff noticed the blood and the inmate was transported to a hospital for treatment.

During another cutting event, Inmate #13 was on a constant suicide watch. He hid a sharp item on his person so he could cut while on suicide watch. While under his suicide-resistant safety blanket, the inmate seriously cut himself and did not alert staff. Finally, the correctional officer noticed blood seeping out from under his blanket, and activated an emergency response. The inmate lost so much blood that he passed out twice, and had to be airlifted to a nearby hospital for treatment. Notably, while waiting for emergent medical treatment, correctional staff managed to stop the inmate's wound from bleeding in a tourniquet and bandages. While correctional staff were not paying close attention to him, the inmate managed to rip off the tourniquet and bandages, which

made him begin to bleed again and prison medical staff had to frantically re-apply the tourniquet and bandages.

Although the analysis revealed that Inmates #16 and 22 primarily engage in cutting behaviors, these two inmates are also known for swallowing objects. Inmate #16 frequently swallows batteries, pencils, and pens, and one time swallowed 13 colored pencils. Inmate #22 routinely swallows wires and cables. Both inmates swallow so many items, and items that potentially can cause serious damage to their bodies that they are often sent to the hospital after they report that they swallowed items. These types of ingestion behaviors frequently require multi-day hospitalizations and serious surgeries to retrieve the objects. Most often, these inmates undergo a surgery whereby medical staff pull items out of their stomach by extracting them through their mouths; however, both inmates have had their abdomens cut open multiple times so the swallowed items could be retrieved in that manner.

Methods of DSH Behavior

A noticeable pattern emerged in terms of the most common method of deliberate self-harm used by the extreme users. The vast majority of extreme users primarily used the cutting/burning/biting method to harm themselves. Notably, 19 of the 25 inmates (*n*=19; 76%) of the extreme users fell into this category. Additionally, 5 of the 25 (*n*=5; 20%) primarily engaged in blunt force (head banging) as a mechanism to engage in DSH, and 1 of the 25 extreme users (*n*=1; 4%) primarily used overdose/ingestion/insertion to engage in self-harm.

Instrumental Reasons for DSH in Prison

Interesting parallels emerged within the extreme user group in terms of their reasons for DSH. First, every one of the 25 people who engaged in high-levels of extreme DSH appears to have engaged in DSH for instrumental reasons, such as to obtain a desired outcome or for some secondary gain. By contrast, none of these inmates were determined to have engaged in DSH for the primary reason of regulating their emotions or due to command hallucinations while incarcerated. As such, analysis of the case files of the 25 people classified as having engaged in extreme levels of DSH reveals that, overwhelmingly, these inmates harm themselves to achieve some perceived benefit while in the prison.

Some inmates engage in instrumental DSH in prison for the very first time; others may have engaged in DSH for instrumental reasons before coming to prison, but increase those behaviors while incarcerated to achieve desired goals. In contrast, certain inmates appear to have engaged in DSH prior to their incarceration as a way to regulate their mood or cope with negative emotions, but they learned that DSH can be used for instrumental reasons in prison. It is also important to note that even though there may be clear-cut instrumental reasons for DSH, those reasons might overlap with mental illness. These are not discrete insofar as people with mental illness might see DSH as a means to a desired end more frequently than those without mental illnesses. The later might file a request to be placed in protective custody or commit disciplinary infractions to get a desired change in housing. Of course, both of those have adverse consequences, such as "protective custody request jacket" (which is viewed negatively among the inmate population) or a loss of privileges (e.g., phone, visitation, recreation, etc.). See Figure 3

for the number or inmates who fall within each subcategory for the instrumental reasons inmates engage in DSH in the correctional setting.

The "Newbies" to DSH

The "Newbies" (*n*=5; 20%) did not engage in DSH behaviors prior to coming to prison. These individuals learned the effectiveness of DSH behavior in the correctional setting by observing others who got their needs met by using DSH behavior. These inmates did not engage in self-harming behavior during their younger years—but rather—they came to prison and observed other inmates who engaged in DSH behaviors get moved to desirable housing locations or receive attention from correctional staff as a direct result of their DSH behavior. As such, these inmates began to mimic this behavior; they started to engage in DSH behaviors to obtain desired outcomes, draw attention to their concerns, and control their environments.

One inmate who developed the propensity to engage in DSH behavior later in life is Inmate #1. This inmate was a former high-ranking gang member of prison gang. Specifically, this inmate at one time was the top gang leader at one of the largest general-population, closed-custody units in Arizona, which is a significant position in the prison gang world. Eventually, this inmate chose to disassociate himself from his gang, which, in turn, jeopardized his personal safety. As a result, he began to demonstrate characteristics of hyper-vigilance and preparation for future danger by engaging in DSH behaviors in order to be transferred to a mental health program or to remain on mental health watch. His DSH included bizarre and life threatening behaviors.

Inmate #1 engaged in 39 self-harm events during the time period included in the dataset. His behaviors included inserting rocks into his nose, existing cuts, or wounds;

swallowing pieces of metal or plastic approximately 4 to 6 inches long after cutting himself with the item; biting himself on the arm or wrists—sometimes multiple times in the same place, which would slow the healing process; and, on several occasions, inserting pencils into his urethra. These DSH acts were frequently of such severity that he needed to be sent to a community hospital to be treated, often with surgical interventions to remove items from his body. Upon this inmate's returns to prison from the hospital, his self-inflicted injuries often required correctional medical staff to order safety mittens for the inmate to wear while his wounds and body healed to disallow the inmate from causing further harm to himself. Notably, the inmate reported to several mental health staff members that he engaged in DSH of this nature to ensure he remained in a mental health program setting where he believed he is safest.

A common reason inmates' personal safety becomes threatened (and is the case for Inmate #1) is they "debrief" or disassociate from the prison gang with which they were affiliated. This means that inmates who were previously involved in a gang are no longer interested in being associated with their gang or involved in their gang's activities. This is viewed negatively in the prison world, and inmates often experience threats to their safety for giving up gang involvement (Pyrooz, 2018). This can lead inmates to engage in DSH to get moved to a different location or admitted to a mental health program to get away from the general population, as illustrated by Inmate # 1's story.

Inmate #19 also did not engage in DSH prior to coming to prison, and he did not engage in any DSH while in prison until he felt his life was threatened and he observed other inmates get moved to new housing locations by using DSH behavior. As such, this inmate engaged in frequent cutting and head banging, and often smeared his blood all

over his cell walls and cell front window in an attempted to get moved to a mental health program, which is often highly sought-after and widely considered safe housing. At times, Inmate #19 would add powered red Kool-aid packets mixed with water to his blood from his wounds to give the appearances that he bled out more than he had. The inmate's intentions appeared to be for shock value and to ensure correctional staff would take him and his concerns more seriously. Inmate #19 is primarily known for head banging, and he is one of the five inmates who engaged in blunt force as his primary method of DSH. The inmate often bangs his head so hard he causes cuts and abrasions that bleed heavily. It was noted that after approximately six months of not engaging in head-banging, the inmate still had a visible bump in his forehead near his hairline. The damage he caused to that area of his head left a permanent scar and bump and his hair did not grow back in that area.

Inmate #19 reported that he first engaged in DSH at the age of 24 in 2015 when he was first incarcerated. The inmate reported he banged his head, which is a behavior he reports he came up with on his own; he did not observe other inmates engaging in this specific self-harm behavior. However, the inmate reported he did observe other inmates engage in other forms of DSH who received attention, help, and got their needs met. As such, the inmate reported that he banged his head one day because he was "stressed out," and correctional, security and medical staff "helped" him. The inmate reported that this one event kick started his frequent DSH behavior because he learned that staff helped him and he felt like people cared about him when he self-harmed. The inmate reported his DSH also led to an adrenaline rush and allowed him to calm down. The inmate

reported he began to self-harm more severely because he assumed he would get more "help" to get his needs met or to obtain a desired outcome.

Inmate #19 has previously reported that he grew up in a chaotic and violent home. The inmate reported his father was very violent towards the inmate and his siblings, and that his father controlled the household using violence. The inmate reported he was also molested by his farther during childhood, although the inmate has declined to speak about the abuse in further detail. The inmate reports he has several full and half brothers and sisters. The inmate reports a special bond with one sister, who is diagnosed with Bipolar Disorder. The inmate reports he does not have many good memories from his childhood, and that he left the house at 18 years old, which is when he first began using drugs. Inmate #19 reported the first dangerous behavior he engaged in was at the age of 13 or 14, when he ran out into traffic. The inmate reports his parents did not immediately find out, and that he was ambivalent to dying, and enjoyed the adrenaline rush he experienced when he engaged in that type of behavior. Of note, running into traffic was not considered to be a DSH behavior because it only could have resulted in indirect self-harm, which is qualitatively different than intentional self-harming behaviors.

Similarly, Inmate #18 also did not engage in DSH prior to coming to prison. This inmate consistently declined to talk about his past, his childhood, or his family; however, he has reported that he first engaged in DSH in 2012 when he was in prison. The inmate reported he primarily cuts, and frequently cuts to remain on a mental health watch as he did not want to be around certain inmates. The inmate frequently advised staff that he feels as though he is better and more intelligent than other inmates, and prefers not to interact with or engage with most other inmates. The inmate also reported he cuts to

manipulate correctional and mental health staff. The inmate has reported, “I learned to self-harm in prison, and I use it in prison to place myself in a position that I want.” The inmate denied having any mental health-based issues or symptoms, but confirmed that he uses DSH as a means to obtain a desired outcome. The inmate reported he primarily cuts, but that he has engaged in self-strangulation with his hands previously.

Inmate #4 also experienced his first DSH event in prison. He reported that he learned about cutting as a child by witnessing his cousin (who later committed suicide by cutting) cut himself. The inmate reported he first cut himself in prison during his early 20s because his sister died due to an unknown cause. The inmate reported he first cut “sideways,” and did not like how it felt. However, the inmate continued to cut as a means to control his environment. Interestingly, the inmate reported to medical staff that when he began cutting in prison, he cut in a way to create a “pocket” under his skin to store and hide razor blades so he always had access to a blade to be able to cut. This is particularly problematic when the inmate is determined to be unstable and placed on a mental health-based watch. To get the inmate in compliance with a mental health watch, the inmate is searched (and the razor blade is never found) and placed in s suicide-resistant smock. Once in a mental health watch cell, the inmate has been known to retrieve the hidden razor blade and either cut himself or insert it into his penis.

Although Inmate #4’s primary method of self-harm is cutting, he also frequently inserted glass, metal, and other items into his penis. At one point, the inmate had a shard of glass in his penis that remained there for months because medical staff could not locate and extract the glass. The inmate reported he never experienced a sense of relief when he cuts; he engaged in DSH solely to obtain a desired outcome. Inmate #4 also reported he

swallowed metal once due to no longer wanting a cellmate, but he did not enjoy that DSH behavior. This inmate also reported he engaged in non-suicidal DSH mostly to manage and manipulate his housing status. The inmate engages in DSH behavior that is not serious, and rarely required emergent medical attention.

Inmate #4 reports being from California, and having a normal childhood until the age of about 13 when he joined a street gang. The inmate reported witnessing shootings and stabbings in and at the family house, and that he joined a street gang due to pressure from his family. The inmate reported he played football in high school, he was the captain of the football team, and he dated a cheerleader. The inmate reports having a full-ride football scholarship to a college in the Midwest. The inmate recalled his most traumatic life experience in which his high school girl friend (the cheerleader) was shot three times at a party after a high school football game due to gang activity. Notably, Inmate #4 is one of three sex offenders within the extreme user group, and is also vocal about his ex-wife being incarcerated in Arizona's female prison. Overall, this inmate engaged in bizarre forms of DSH behavior, and has been unable or unwilling to articulate why he chooses insertion as one of his primary self-harm behaviors.

These three inmates all learned the functional purpose that DSH behavior serves in prison. They did not engage in DSH prior to being incarcerated, but they all learned how to engage in self-harm prior to coming to prison from family or friends, or by observing other inmates engage in DSH and benefit from the behavior. Notably, these three inmates engage in relatively superficial self-harm that rarely require emergency trips to a community hospital. Last, these three inmates all reference that their primary

motivation to engage in DSH is to obtain some sort of desired outcome or for secondary gain, not to regulate their emotions or obtain a sense of relief.

The Previously Experienced Self-Harmers

Inmates # 3, 5, 9, 11, and 16 all engaged in DSH occasionally as children, but they appear to have learned the power of frequent and intentional self-harm while in the prison setting. For example, Inmate #9 began cutting himself while he was incarcerated as a juvenile. He reported that he had begun cutting himself to alleviate the stress and anxiety associated with his troubled childhood. Specifically, he told medical personnel that he had been emotionally and physically abused by his stepfather throughout his childhood. Additionally, he reported that he had been sexually assaulted by two men during his early teens. Nonetheless, Inmate #9 admitted that what began as a mechanism to regulate his negative emotions during his childhood transitioned into a tool he learned to use in prison to manipulate his environment, especially with regard to housing assignments. The inmate reported that his younger brother (by one year) was incarcerated in the Arizona prison system, and was a member of the Aryan Brotherhood prison gang. However, Inmate #9's brother "stepped away" (or renounced) from the Aryan Brotherhood gang, which put Inmate #9's life in jeopardy. As such, the inmate was placed in protective custody. The inmate reported he engaged in frequent cutting behavior to get sent to a mental health program for more safety. The inmate reported his brother is now out of prison and working for the mines, and frequently puts money in the inmate's ADC banking account.

Inmate #9 is a known cutter, and he acknowledged that his cutting DSH during the 13-month time period relevant to the present research was for the purpose of getting

moved from a complex he found undesirable into another with a mental health program. The inmate only engaged in non-life-threatening cutting behavior to his forearms during this study period. The inmate initially reported to mental health staff that he fantasized about killing others, and then he reported he began thinking about harming himself, which landed him on a mental health-based observation status to monitor the inmate's behavior. The inmate then graduated into superficial cutting to his forearm, which increased in severity in order to get admitted into a mental health program. At the time that the inmate the inmate was transported into the mental health program he currently resides, his cutting necessitated emergency medical intervention and sutures. Notably, from his high frequency of cutting for many years, this inmate's arms are covered in many scars that range from superficial to deep wounds needing stitches.

Inmates # 3, 5 and 11 had similar stories about having engaged in DSH during childhood, but also having learned to use DSH in prison as a means to obtain desired outcomes or changes in their status. Inmate #11 reported he did not have traumatic childhood experiences. Indeed, he said that he was never abused and that he came from a good family. Nonetheless, he reported that he first harmed himself at the age of seven by banging his head. But he had never cut himself or engaged in frequent DSH until he was in prison and had learned the utility of the behavior. This inmate at first reported to mental health staff that he was suicidal and had thoughts of engaging in self-harm behavior, which forced mental health staff to place the inmate on a mental health observation status. The inmate then engaged in superficial cutting behavior, mostly by using a dull piece of metal or piece of plastic to cut his forearms or another highly visibly locations.

Gradually, Inmate #11 increased in terms of severity and frequency in cutting DSH behavior. Eventually, this inmate cut with sharp pieces of metal, at a high frequency, often drawing blood and needing on-site medical treatment to stop the bleeding. This inmate never engaged in serious self-harm that required a trip to an off-site emergency department for treatment. This is likely due to the fact that the reported that he was never suicidal and never had any mental health-based issues or symptoms, but that he used DSH behavior as a mean to gain a desired outcome. This inmate has admitted that he engaged these DSH behaviors for the purpose of getting transferred to a new prison.

Similarly, Inmate #5 told medical personnel that he first self-harmed at 12 years of age and that he has been cutting himself ever since then for the purpose of mood regulation. Inmate #5 reported that he observed other family members self-harm, which gave him the idea to try self-harm. This inmate reported that he began to self-harm to "take the pain away" from his chaotic family of origin and abusive childhood. Specifically, this inmate reported that he was physically abused and was hit with tree branches and cords by his mother and father. Inmate #5 reported his younger brother was also the recipient of physical abuse, but he tried to protect his little brother as best that he could. Inmate #5 reported that at one point, after his parents split up, his mother (at the request of her boyfriend) kicked him and his little brother out of the house at ages 10 and 7, respectively. The inmate reported that his maternal grandmother and aunt had to come pick-up inmate and his little brother in a park after their mother had kicked them out of the house and left them alone in a park.

The inmate reported that he hid his self-harm, but he believes even if his family knew, they would not have cared. Inmate #5 reported that his mother and father have since passed away, but he has not cried because of the hatred he feels towards them. The inmate reported he grew up "in the streets," and did not experience any love during his childhood, and did not feel any attachment to his family of origin. The inmate reported he did not have a stable home or parents that cared about him. Notably, the inmate reported that his mother and father routinely chose their significant others over their children, and when his father was dying in the hospital, his girlfriend married his father to be able to acquire his house.

Inmate #5 reported he has a significant substance use problem, and his chaotic and his unloving family of origin and negative childhood experiences were contributing factors to his addiction. The inmate reported he ran up a drug debt he could not pay, and resorted to DSH as a way to cope with the stress and paranoia associated with prison life and as a means to get sent to a mental health program to escape his drug debt. The inmate admitted that by observing other inmates he learned that frequent DSH behavior often leads to housing changes to other prison complexes or admission to mental health programs. What started off as a mechanism to obtain a sense of relief, Inmate #5 used DSH for instrumental reasons in prison. This inmate initially cut while in prison because he was "stressing" and because it made him "feel good," but he eventually used the behavior to control his environment. Inmate #5 reported he engaged in high rates of cutting behavior for the sole purpose of being transported from the prison in which he acquired his drug debt to a new location where inmates would not likely assault him due to those debts.

Inmate #3 is similar to the inmates previously discussed in this section in terms of his engagement of DSH behavior prior to coming to prison. This inmate reported he engaged in DSH behavior for the first time at the age of 17 after he watched his cousin engage in cutting self-harming behavior. Inmate #3 reported he initially started scratching himself on his forearms, but then gradually began engaging in more serious cutting behaviors on his arms. The inmate reported he cut for the first time at 22 years old when he was in county jail for five armed robbery charges and an attempted murder charge. The inmate reported he cut to regulate his mood and to obtain a sense of relief as he was facing serious criminal charges. The inmate reports that after he was sent to prison he continued to engage in serious cutting DSH behaviors which resulted in the inmate being four-point restrained at least one time within the first few months of his incarceration. The inmate reported that once he was released from prison after completing those sentences, his family disapproved his cutting behaviors, so he began cutting his inner thigh to hide his DSH behaviors more easily from his family.

Inmate #3 described a traumatic and chaotic childhood. The inmate reported that at the age of 8, both of his younger siblings (ages 2 and 3) died in a house fire. The inmate reported he was the only surviving child of the family to survive the fire. The inmate reported he barely recalls the fire, but woke up in the hospital "with tubes down [his] throat." The inmate reported his parents separated shortly after that event, and subsequently, he never really knew his father. The inmate reports his mother was emotionally distant and was never willing to talk about the housefire. As such, the inmate reported that the streets "raised" him." Inmate #3 reported that he was taught to cook and sell crack by the age of 10, and was smoking marijuana and drinking alcohol also by the

age of 10. The inmate reported that he owned his first pistol and saw his first dead body at the age of 12. At the age of 13, he saw a member of his street gang get shot in the head. The inmate reported at the age of 13 he was "blessed in" by the Gangster Disciples, which is a prominent street gang in the Midwest.

In terms of his criminal history, the inmate reported he was arrested for the first time at the age of 15 years old for primarily drug-related offenses. The inmate reported witnessing significant violence in jail during his teens, which he believes has a profound impact on him. The inmate reported at the age of 19, he committed his first home invasion, and at the age of 22 he was charged with serious violent offenses for the first time. The inmate reported he has no positive role models encouraging him to go to school and engage in positive behavior. Instead, the inmate reported his familial role models encouraged him to make and sell drugs, and become involved in street gangs. Importantly the inmate also reported, "I was molested quite a few times. I really struggle with it. I try to drown that shit out. It's the reason why I cut. I hate cutting… it isn't a badge of honor."

Inmate #3 has demonstrated reluctance in terms of discussing his history of being molested. However, the inmate has mentioned on several occasions that he was frequently molested during his childhood. Notably, this inmate is in prison for raping an elderly woman at knife point, and has an extensive history of masturbating in front of female correctional, medical, and mental health staff. This inmate has told staff that masturbating and exposing himself or female staff is a compulsion that he cannot control. It is also important to note that this inmate frequently (as previously noted) cuts the upper inner part of his left thigh and frequently maneuvers his body in a way that ensures his

penis comes out of his clothing, thus exposing his penis to female nurses when they provide him wound care or medical treatment to his cut.

Using DSH for Secondary Gain: Getting Your Way in Prison

The high prevalence of instrumental reasons among the extreme users led to two primary identified themes regarding the specific reasons for DSH behaviors. These specific reasons include: DSH used as a punishing and retaliatory behavior and DSH as a learned behavior to cope with perceived safety concerns. Inmates #2, 3, 4, 10, 14, 19, 23 all engaged in DSH behavior in response to getting upset about correctional staff behavior they found to be undesirable. The situations inmates perceived as undesirable included a range of behaviors that can be broadly grouped into one of two categories: when inmates felt that they were not getting their needs met; and when inmates perceived institutional rules and regulations to be so unfair that they felt the need to rebel against them.

Examples of the group—not getting perceived needs met—include Inmates #2, 3, 4, 10, 14, 16, and 19. All of these inmates harmed themselves when they did not get an appliance they requested (such as a radio or television); when they did not get seen by medical staff when they asked to be seen; or when they wanted to get placed on suicide watch where they receive more staff attention and increased chances to place a phone call. Similarly, Inmates #10, 14, 19, and 23 engaged in DSH as a way to "punish" correctional staff with whom they were upset. These inmates typically engaged in DSH to cause trouble for staff or to create more work for staff.

For example, Inmate #14 is widely known among correctional staff for superficial cutting. During one episode, he became upset at correctional mental health and security

staff because he wanted to be discharged from the mental health program we was admitted into. In order to "punish" the staff with whom he was frustrated, this inmate used his finger nail to superficially cut his forearm. This inmate's cut only required triple antibiotic ointment in terms of medical treatment. During another episode, the inmate grew frustrated with mental health staff, and ripped a scab off of a previous superficial laceration he did with a small rock. This inmate exhibited a pattern of behavior in which the inmate became angry and frustrated, and engaged in DSH behavior in order to get back at or retaliate against correctional staff.

Inmate #10 also engaged in numerous DSH behaviors when he perceived an injustice had occurred against himself or another inmate he cared about. During one DSH episode, the inmate engaged in self-harm because he was assaulted by another inmate in his mental health program, and due to his negative reputation among correctional security staff, he was placed on lock-down status, despite not starting the fight. Of note, lock-down status in Arizona prison systems means that the inmate did not have access to his property and loss of desirable privileges. In response to this perceived injustice, the inmate swallowed three razor blades, one open set of nail clippers, and one opened paper clip. When the inmate was transported to a new facility to better manage his unstable behavior, the inmate again interpreted this location move as an injustice. In response, this inmate cut his neck so severely, the laceration required about 40 stitches. During the time after the inmate cut his neck, he continued to intermittently pull his stitches out. Further, during Inmate #10's DSH episodes, he was frequently heard saying, "I'm going to bring this institution to its knees," meaning, that he intended to engage in multiple and severe

DSH behaviors to "punish" certain staff for perceived wrongdoings (i.e., not following policy, withholding inmate's property, or for disrespecting the inmate).

Another example of DSH used as punishment or retaliation is Inmate #3. This inmate often allowed his environment, and people within his environment to dictate his behavior. During one DSH episode, the inmate was angry with correctional staff because he believed they threw away or destroyed certain items from his property box while he was on a mental health watch for engaging in cutting behavior. When the inmate was taken off watch, the inmate was returned to his cell, and received his property. Once he thought his property partially ruined or stolen, the inmate used a staple from his legal paperwork to re-open an existing laceration. The inmate bled out so severely, he was taken to the hospital on an emergent basis for sutures and treatment.

Last, Inmate #16 engaged in self-harm in order to retaliate against security administrators. This inmate had a history of getting frustrated and destroying state-issued electronics, such as personals fans, radios, and televisions. As such, the inmate was denied these items when the inmate requested to receive these items. During one self-harm episode, Inmate #16 swallowed several batteries, pieces of metal, and short colored pencils. When asked why he engaged in this behavior, the inmate reported he felt frustrated that other inmates were receiving these items, but he was being denied the items he requested. When reminded about his history of destroying state-issued appliances, the inmate advised he believed he had "proved himself" and demonstrated good behavior long enough to be trusted with these types of items again. However, when the inmate was told he would not be receiving these items, he swallowed foreign objects in order to retaliate against correctional staff.

Housing and Safety Concerns

The key reason why many inmates engaged in extreme levels of DSH behaviors appears to have been to manipulate their housing status or some another aspect of their living environment. These behaviors were largely rooted in concerns about personal safety. The analysis yielded that 13 of the 25 (52%) inmates classified as extreme repeaters of DSH do so as a mechanism to manage or control their housing assignments, to get transferred to another unit, or to get admitted into a mental health program and away from the general population. Put differently, for more than two-third of the inmates in the extreme category, their DSH behaviors served the functional purpose to control their environment, typically to obtain a sense of personal safety.

"My anxiety has anxiety at this point." For several of the extreme users, their fear for their personal safety led them to develop pathological anxiety. Six of the 25 inmates (24%) exhibited symptoms of an anxiety-based disorder. According to the DSM-5, the hallmark feature of anxiety disorders includes "anticipation of future threat… [Anxiety] is more often associated with muscle tension and vigilance in preparation for future danger and cautious or avoidant behaviors" (APA, 2013, p. 189). Many inmates within the extreme user group— such as Inmates #1, 5, 7, 8, 11, 15, 21, and 24—engaged in DSH due to real or perceived threats to their personal safety. Specifically, Inmates #11, 21, and 24 were not on the mental health caseload and had been functioning without engaging in DSH. However, once their personal safety was in danger, they engaged in DSH that appears to have been rooted in an anxiety disorder. Common contributing reasons for anxiety that leads to DSH among the extreme user group include gang desistance and engaging in behaviors that violet prison cultural norms.

Unresolved Debts, Snitching, and Other Violations of Inmate Norms. There are other informal rules in prison, beyond prison gang desistence, that can expose inmates to safety concerns. It is, therefore, unsurprising that several inmates used DSH behaviors as a mechanism to control their environment or housing assignments because they violated prison cultural norms and because of this, they believed their safety was in jeopardy. In fact, this situation appears to apply to 11 of the 25 inmates classified as having engaged DSH at extreme frequency levels, including Inmate # 2, 3, 4, 5, 9, 11, 13, 15, 17, 20, and 23.

One example of a violation of a prison norm is accumulating drug debt that cannot be paid back. This example is evidenced by Inmates #4, #5 and 11, who admitted they had a history of severe drug abuse and accumulated drug debt that they could not pay back. Since this is a sign of disrespect and violates informal prison rules, these inmates believed their personal safety was at risk. As such, these inmates engaged in superficial DSH as means of getting sent to a new location or to a mental health program where they felt they would be safe.

Consider Inmate #11, who engaged in 11 different DSH events during a 30-day time span just prior to his transfer to a mental health program in a different prison complex. Notably, every self-harm event in which this inmate engaged was superficial, and he had never been on the mental health caseload prior to engaging in this string of DSH behaviors. In fact, when this inmate arrived to prison in 2017 to complete his current prison sentence, a psycho-social intake assessment was completed on the inmate and he was assigned the lowest mental health risk score possible, because he had absolutely no history of receiving mental health services in his entire life. However, his

prison-based DSH behaviors necessitated mental health interventions to address his concerns in an attempt to help this inmate decrease the frequency of his DSH behaviors. As such, the inmate was admitted into a mental health program, which was the inmate's desired outcome and his reported reason for engaging in high rates of DSH behavior.

Inmate #5 demonstrated similar reasons for his DSH. Due to this inmate's drug debt that he was unable to pay back, he engaged in 43 superficial DSH events during the 13-month time period included in this dataset. He engaged in 24 DSH events during a one-month period of time in an attempt to convey his desperation to be moved to a new prison or a safer housing location. This inmate reported several times to staff that his DSH behavior was prompted by personal safety fears; moreover, he hoped his actions would result in his reassignment to what be believed to be a safer housing status.

Inmates # 2 and 7 also violated prison cultural norms by becoming "snitches." Due to their actions, they feared they would be assaulted or killed by other inmates; as a result, they engaged in frequent DSH as a mechanism to get transferred or admitted into a mental health program. Being labeled a "snitch" is highly frowned upon in prison and comes with a high likelihood of bodily injury at the hands of other inmates (Skarbek, 2014, p. 113). Inmate #2 was an informant regarding a high-profile federal court case involving a bomb threat at one of ADC's facilities. This inmate had direct knowledge about bomb-making materials that were being smuggled into an ADC prison complex and sent to certain inmates via U.S. Postal Service mail from individuals in the community. This inmate informed on several inmates who were involved in the bomb threat. Due to this inmate being labeled a 'snitch,' this inmate engaged in frequent DSH

in an attempt to be placed in a mental health program, which is considered a safe place to house.

During the study time period, this Inmate #2 engaged in 38 DHS events, and he primarily engaged in cutting behavior. The analysis indicated that his cutting DSH never was serious enough for him to need to be transported to a community hospital for treatment. Inmate #2 tended to engage in superficial deliberate self-harm that only required steri-strips (as opposed to deeper wounds that needed sutures) for treatment. The analysis also suggested that correctional staff frequently had to intervene to disallow the inmate from manipulating his bandages and/or re-opening existing wounds that had not yet healed. The inmate frequently reported to correctional that he engaged in cutting and re-opening of wounds to ensure he remained on a constant suicide watch, where he felt safe. Last, the inmate also stated that he engaged superficial DSH as a mean to get transferred into a specific mental health program for permanent safe housing.

Similarly, Inmate #7 witnessed and reported an inappropriate sexual relationship between three inmates and a correctional worker to an ADC administrator. Since being an informant is one of the most serious violations of the informal code of conduct among inmates, Inmate #7's prison gang attempted to harm him. He, in turn, attempted to hang himself during the time period relevant to the present study. He subsequently reported that he tried to kill himself because "if they [the prison gang members] were going to get me, I might as well do it to myself before they do." The prison staff assessed Inmate #7 not as being truly suicidal, but rather as having engaged in DSH in the hopes that he would be removed from his unit and sent to a new location or a mental health program.

Inmate #17 also reported he has housing issues at a certain complex, and engaged in DSH as a mechanism to get moved to a mental health program at another complex. This inmate began engaging in superficial cutting DSH behaviors to get placed on suicide watch, which is regarded by the inmate population to be one of the safest placed to live in prison. This inmate's DSH began as very superficial cutting, and his cutting behavior increased in severity over time. At the peak of this inmate's DSH behavior, this inmate was observed cutting himself and writing messages to correctional staff in his blood on his watch cell wall. This inmate also became increasingly angry and agitated with correctional staff and began to display verbally and aggressive and odd behavior. For example, during one DSH event, this inmate cut himself and smeared blood on his body and all over his cell and yelled at correctional workers stating, "I bet you like this blood! You're a shark!"

One infamous example of behavior that violated prison cultural norms and led to significant safety issues and high rates of DSH behavior was exhibited by Inmate #15. This inmate ejaculated into several peanut butter sandwiches and then gave the sandwiches away to other inmates in his housing pod. After the sandwiches were eaten, this inmate informed the other inmates of the ingredients of the sandwiches. Understandably, the other inmates were upset and attempted to assault Inmate #15. Inmate #15 proceeded to engage in the highest number of DSH behavior in the 13-month time period of this dataset—125 distinct events—in order to remain in a safe housing location on suicide watch. Inmate #15 nearly always engaged in superficial cutting behavior; indeed, 99 of 125 (79.2%) were events in which he cut his arms or other highly visible places on his body superficially with rocks, pieces of metal or plastic, and even

potato chips at times. This inmate was also known for "painting" fireworks and ocean scenes with his feces all over his cell. Notably, this inmate is not seriously mentally ill. He engaged in these types of DSH behaviors to ensure he remains on mental health watch, which he perceives is the safest place to live in prison.

Inmate #24 serves as another example of someone who engaged in frequent DSH behavior as a means to obtain personal safety, but his story is unique insofar as how he harmed himself. Inmate #24 caused serious blunt force trauma to himself. In fact, all 47 of his DSH events involved blunt force. In the prison setting, DSH involving blunt force typically involves banging one's head against a cell wall or cell door, punching a cell wall or cell door with a closed fist, or intentionally falling onto the ground or other hard surface. Inmate #24 had been observed fiercely banging his head into his cell door, often necessitating the use of four- or six-point therapeutic restraints prevent him from continuing to engage in such serious DSH behavior. He had also been observed ripping out of the wall furniture that had been bolted to it. Sometimes, he harmed himself in the process; other times, he used the furniture to harm himself once it was removed from the wall. As a result, this inmate often required placement in specialized cells without furniture. Additionally, his behavior was so severe that it necessitated both emergency and routine forced administrations of medications to reduce his persistent and acute DSH actions.

Inmate #24 was incarcerated for the murder of his wife. He shot her in the head, execution style, in the garage of their family home while their children were in the house. Prison culture views crimes against or in front of women and children very negatively (Skarbek, 2014, p. 28) and, as a result, inmates can be assaulted if they committed crimes

of this nature. Further, this particular inmate was formerly a public servant prior to coming to prison. As a result, he was placed in protective custody due to concerns for his safety. Despite being in protective custody, this inmate perceived that his safety was in jeopardy and frequently engaged in blunt force DSH behavior as a means to remain on a mental health watch and avoid future danger. Inmates consider being on watch to be the safest housing placement in prison because correctional officers maintaining close observation on such inmates. Yet, Inmate #24 still feared for his safety. He wanted to serve his prison sentence in another state and appeared to believe that repeated, serious acts of DSH would be his best chance at leaving Arizona to serve the remainder of his prison time.

The Link between Childhood Trauma and Later Frequent DSH

The analyses suggest that a prevalent theme among extreme users is that their highly dysfunctional, traumatic, and violent childhood contributed to later DSH behavior. This is illustrated by the number of inmates who appear to meet several criteria for an attachment disorder due to their childhoods, and now exhibit problematic DSH behavior during adulthood while incarcerated. According to the DSM-5, attachment-based behavioral issues develop in early childhood years, largely due to

> a pattern of extremes in insufficient care as evidenced by a least one of the following: Social neglect or deprivation in the form of persistent lack of having basic emotional needs for comfort, stimulation, and affection by caregiving adults. Repeated changes of primary caregivers that limit opportunities to form stable attachments. Rearing in unusual settings that

> severely limit opportunities to form selective attachments. (APA, 2013, pp. 265-266)

These types of attachment-based disorders begin in childhood; however, they manifest and have prolonged negative consequences into adulthood (APA, 2013). As previously discussed, some of the inmates in the extreme user group— Inmates #6, 12, 15, 19, 22 and 23— have documented pasts involving severe neglect and deprivation, physical abuse, sexual abuse, and very few chances to form stable attachments. As such, it appeared that these attachment issues could have translated into severe and frequent DSH behavior as a way to gain attention, manage negative emotions, and to get their needs met. Each of these five inmates learned to engage in DSH prior to coming to prison as a mechanism to elicit attention or affection from their family, or in an attempt to gain some sense of control over their chaotic environments.

The manner in which DSH behavior was learned appeared to be a consistent and significant theme among extreme users. It is clear that one primary way inmates learned to engage in DSH as a functional way to get their needs met was due to experiencing trauma or abuse from their family of origin. Inmates #6, 10, 12, 15, 22 all illustrate this link as each inmate experienced horrific abuse and trauma during their childhoods. These inmates all grew up in dysfunctional and violent biological families of origin that consisted of physical abuse, sexual abuse, and severe neglect. For example, Inmate #10 reported his family of origin was made up of his father, mother, and older brother. This inmate often discusses the violence he witnessed as a child. He reported that he had observed his father physically abuse his mother throughout his childhood; additionally, he and his older brother were often the recipients of physical abuse from their father. This

inmate disclosed that he began cutting himself around 12 or 13 years of age to relieve the pain he felt internally.

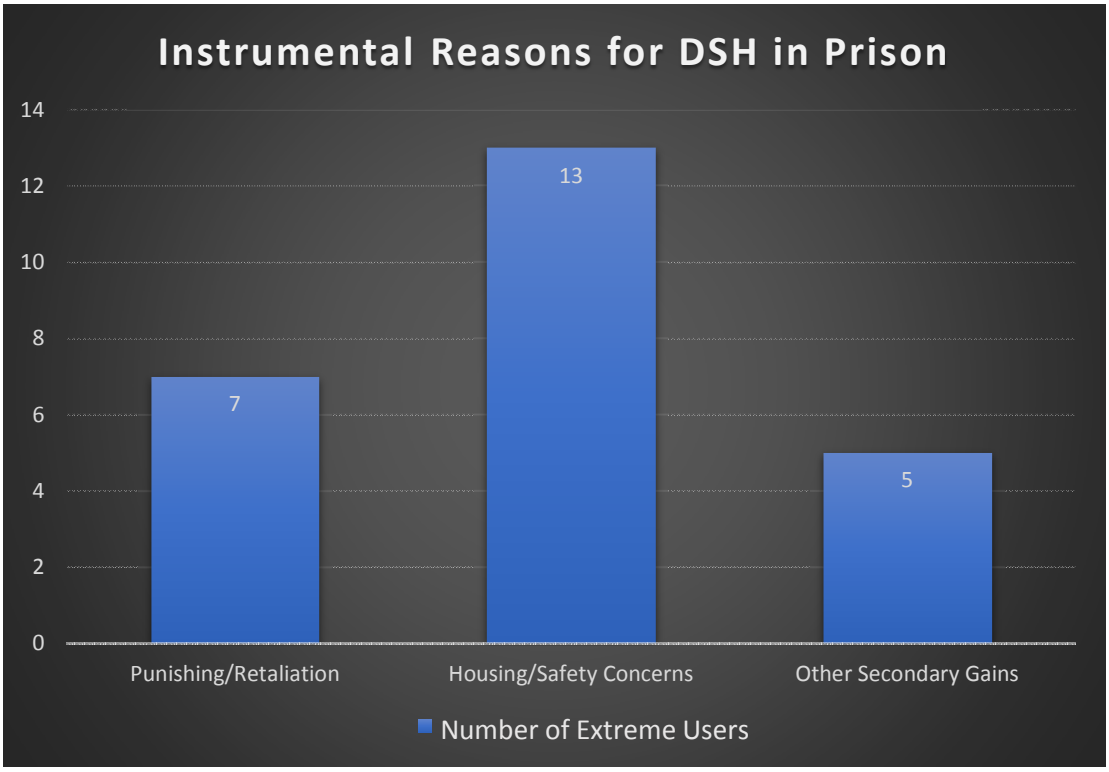
Inmate #23 also reported severe abuse and neglect beginning in his early childhood. This inmate had a chaotic and violent family of origin. Notably, this inmate's two sisters and mother either were currently in prison or had previously served prison sentences. Also, this inmate's half-brother was one of the other people in the extreme frequency category of self-harmers in the dataset. This inmate reported that his mother was a heavy crack cocaine user who had often left him and his siblings with friends or random men. This inmate also revealed that he and his siblings often slept on the streets or at bus stops and had to steal food to survive. Inmate #23 also recalled that his mother left him and his siblings in an abandoned apartment that was filthy and filled with mold. He reported that another family member found him and siblings living in such dangerous conditions. This family member took them to the hospital where they were diagnosed with pneumonia and told that if they had spent more time in that apartment, they could have died.

Inmate #23 also reported physical abuse throughout his childhood. According to this inmate, his mother was often drunk. When she drank, she would physically beat her children. He claimed that his mother even extinguished her cigarettes on her children when she was drunk. Inmate #23 also recalled witnessing a traumatic murder. According to the inmate, when he was 13-years-old, he was driving in a car with his female cousin when another car pulled up next to them and fired several shots into their car, killing his cousin. Inmate #23 reported that he was involved in gang activity, so he believes that he, not his cousin, had been the intended target, which led him to experience feelings of guilt.

To regulate his moods, this inmate reported that he learned to cut from his best friend in grade school. This inmate also reported that during high school, his cutting increased in severity (sometimes requiring stitches) and in frequency (happening daily). Inmate #23 also revealed that he had previously engaged in DSH via burning. Beginning at the age 14, he would heat up a pan and press it on his skin. Inmate #23 reported that he believes his DSH behaviors increased during his high school years as a mechanism to cope with the pain associated with his cousin being violently murdered within a few feet of him at the age of 13.

Related to growing up in violent and neglectful families of origin, Inmates # 6 and 12 grew up in the foster care system. They had been in-and-out of different foster homes, some of which subjected them to various forms of abuse and neglect. Inmate #12 reported she began having suicidal ideation sat the age of 7, she started engaging in DSH shortly thereafter, and first attempted suicide at the age of 12. By the time this inmate came to prison at the age of 22, she had been admitted into psychiatric hospitals several times for serious self-harming behaviors. For example, she reported at least 30 different incidents in which she had deliberately walked into traffic, cut herself, hanged her head, and inserted items into her ear and other orifices. She even had previously attempted hanging herself.

Figure 3: Instrumental Reasons for DSH Among Extreme Self-Harmers



What Happens After Extreme Levels of DSH Are Successful in Achieving Desired Goals?

Research Question # 4 concerns whether inmates who engage in high rates of DSH experience an increase or decrease in such behaviors when their actions result in their desired goal of being moved to a new environment within the correctional settings. The answer is unclear. Although a majority—12 of the 25 extreme frequency inmates (48%)— exhibited a decrease in DSH behaviors after they were moved to a new housing location or placed in a mental health program, eight inmates (32%) did not exhibit a decrease in DSH behaviors. And, because four of the 25 extreme users remained in the same location or mental health program, it was not possible to evaluate whether or not their rate of DSH behavior was impacted due to a location transfer.

The "Success" Stories

Inmates #5, 7, 11, 17, and 21 were largely unknown to mental health staff because they were not receiving mental health services prior to starting to engage in DSH. Once they started to frequently harm themselves, however, they were transported to a new housing location or placed in a mental health program in response to their DSH behaviors. After they obtained their desired new environments, their behaviors either significantly decreased or ceased all together. Inmate #17 illustrates this pattern. He engaged in 26 superficial cutting events between September 13, 2018 and December 10, 2018. Notably, this inmate consistently reported he had been engaging in DSH for the sole purpose if being transferred to a new prison complex. Once this inmate was transferred and was admitted into a mental health program, all DSH behaviors ceased.

Another example of a "success" story is Inmate #11. This inmate engaged in 28 DSH events, and his primary self-harm behavior was cutting. Recall that this inmate was given the lowest mental health score possible within the Arizona prison system when he entered prison in 2017. However, despite this inmate being placed into protective custody, Inmate #11 began superficially cutting himself due to perceived housing issues. Due to his frequent cutting, this inmate was referred to a mental health program. Once Inmate #11 was transferred to a new complex and into a mental health program designed to treat inmates who engage in DSH, he never self-harmed again.

A final salient example of an inmate who exhibited decreases in DSH behavior after his transfer to a new prison complex is Inmate #5. This inmate engaged in 43 acts of DSH that included 40 superficial cutting behaviors, two blunt force events, and one overdose/ingestion/insertion event. This inmate began engaging in DSH on December 22,

2018. He was transported to a new prison complex and admitted into a mental health program on March 12, 2019. After being moved, he engaged in DSH behavior only three more times during April of 2019, after which his DSH completely stopped. Given that this inmate engaged in 40 self-harm events prior to him being transported to a desirable location, and once transferred there, he engaged in only three more DSH events and stopped self-harming completely, this example nicely illustrates an example of the use of DSH behavior for instrumental purposes.

The Persisters

In contrast to the "success" stories, Inmates #3, 4, 10, 12, 13, 16, 19, 20, and 24 (*n*=9; 36%) engaged in high frequencies of DSH no matter where they were housed. This group of individuals seemed to persist in extremely frequent DSH for one of two reasons. First, they experienced significant personal safety concerns that, at least for the inmates themselves, could not be addressed by a change in housing unit. Alternatively, there are a group of inmates with personality disorders that lend themselves to an insatiable need for attention. Regardless of which of these two reasons were applicable, the inmates who experienced such motivations for engaging in frequent DSH tended to be shifted around to two or three housing locations in attempts to manage or control their high rates of self-injurious behaviors.

Overall, it is important to note fact that the "success stories" are the best examples of the instrumental nature of DSH in the correctional setting. The DSH behaviors stopped when the individuals categorized as "success stories" got what they wanted. In other words, this is the "purest form" of instrumentality. By contrast, the "persisters" without safety/housing concerns may have psychiatric diagnoses that contribute to the fact that

they continue to engage in DSH no matter what. Thus, for these people, DSH is not likely a function of purely instrumental reasons, but rather is caused, at least in part, by anxiety or mood disorders or other forms of mental illness. This is likely especially the case for the attention-seekers.

Persistent Safety Concerns Regardless of Changes in Correctional Environment. For example, #3, 4, 13, and 24 reported that they feared for their safety in general population housing locations. As such, they continued to engage in high rates of DSH to ensure they remained admitted to certain mental health programs that were designed for inmates who engage in frequent self-harm behaviors and exhibit signs of characteristics of Borderline Personality Disorder and Antisocial Personality Disorder. For example, Inmate #24, who previously was a decorated combat war veteran with the United States military and a public servant—an individual who was functioning well in society.[1] However, due to his concerns for his personal safety, he engaged in serious DSH behaviors in order to remain in certain mental health programs he believes are safer than the general population. Indeed, as previously mentioned, he wanted to serve his sentence out-of-state. Thus, moving him to different units in the ADC did not address his underlying safety concerns. Hence, it is understandable that his instrumental DSH persisted over the entirety of the period relevant to this study.

Similarly, Inmates #3 and #4 engaged in comparable amounts of self-harm at equivalent severity levels regardless of where they were housed, largely due to safety concerns. These inmates both primarily engage in cutting DSH behaviors, and they both

[1] The specific type of public service in which this inmate had previously been engaged is not reported to maintain his anonymity.

were housed in mental health programs at both the close-custody and maximum-custody settings at three different prison units. Despite experiencing significant changes in their environments (such as different prison complexes, prison units, correctional staff, mental health staff, medical staff, and custody levels), they exhibited similar rates of DSH and seriousness of their DSH. Further, these inmates both engage in DSH behavior to ensure they remain in a mental health program due to their perceived concerns for their safety.

The Attention-Seekers

Three inmates, Inmates # 8, 12, and 19, did not appear to have any safety concerns. Rather, their DSH appears to have been motivated by the fact that they enjoy the attention they receive from correctional staff attendant to DSH activity. For example, Inmate #8 maintained a stable amount and type of self-harm regardless of where he is housed. This inmate appears to have a difficult time interrelating with other people, and spends significant amounts of time on a mental health-based watch in order to draw attention to his needs or concerns. This inmate's primary DSH behavior was cutting; however, the vast majority of the time he superficially scratched himself. During one episode, in an attempt to request a certain medication, the inmate superficially scratched himself on his forearm with a plastic spoon. A short time later, the inmate scratched himself repeatedly with his finger nails (also on his forearm), which resulted in a scant amount of blood. The inmate was also observed punching himself in the face, and frequently feigned being unresponsive. When inmates present unresponsive in the prison setting, correctional staff initiate an emergency throughout the housing unit, and mental health, medical, and security correctional staff rush to the unresponsive inmate to render

aid. Inmate #8 never engaged in any DSH behavior that was more than superficial, and his behaviors (both DSH and non-DSH) suggested an unquenchable need for attention.

Inmate #12 exhibited a similar presentation as Inmate #8. Inmate #12 engaged in dysfunctional behavior, regardless of where she was housed. This inmate's behavior led to her be housed in a mental health program where she received the most medical and mental health services offered within the prison system. This inmate engaged is extremely superficial self-harm such as light head-banging and self-inflicted nose bleeds. During many purposeful nose bleed episodes, the inmate used her blood to draw pictures on her cell wall and cell front window. Also, there were many documented instances where Inmate #12 would climb up on the sink or toilet in her cell and threaten to jump off onto the concrete floor head first. The inmate frequently wouldn't come down when asked, which forced security staff to assemble a specialized team to enter into the inmate's cell and assist her safety to the ground. Further, there were frequent situations in which Inmate #12 would feign being unresponsive, which would require an emergency response from a myriad of correctional staff. Overall, Inmate #12 demonstrated a strong need for attention which was illustrated by her non-serious DSH behavior and other problematic and attention-seeking behaviors.

These individuals not only tend to demonstrate dysfunctional ways of interacting with other people, but they exhibit unhealthy way of attempting to elicit attention from staff and their behaviors that are congruent with personality disorders that are often challenging to work with, such as Borderline Personality Disorder (BPD) and Antisocial Personality Disorder (ASPD). The hallmark features of these two personality disorders contribute to persisting DSH behaviors and attention-seeking behaviors. First, the

diagnostic criteria for BPD include self-mutilation or suicidal gestures, mood instability and strong negative reactions, and inappropriate and intense anger. These types of personality features create a hotbed for the prolonged use of DSH behaviors to cope with frustration or anger, and to control the environment and people within the environment.

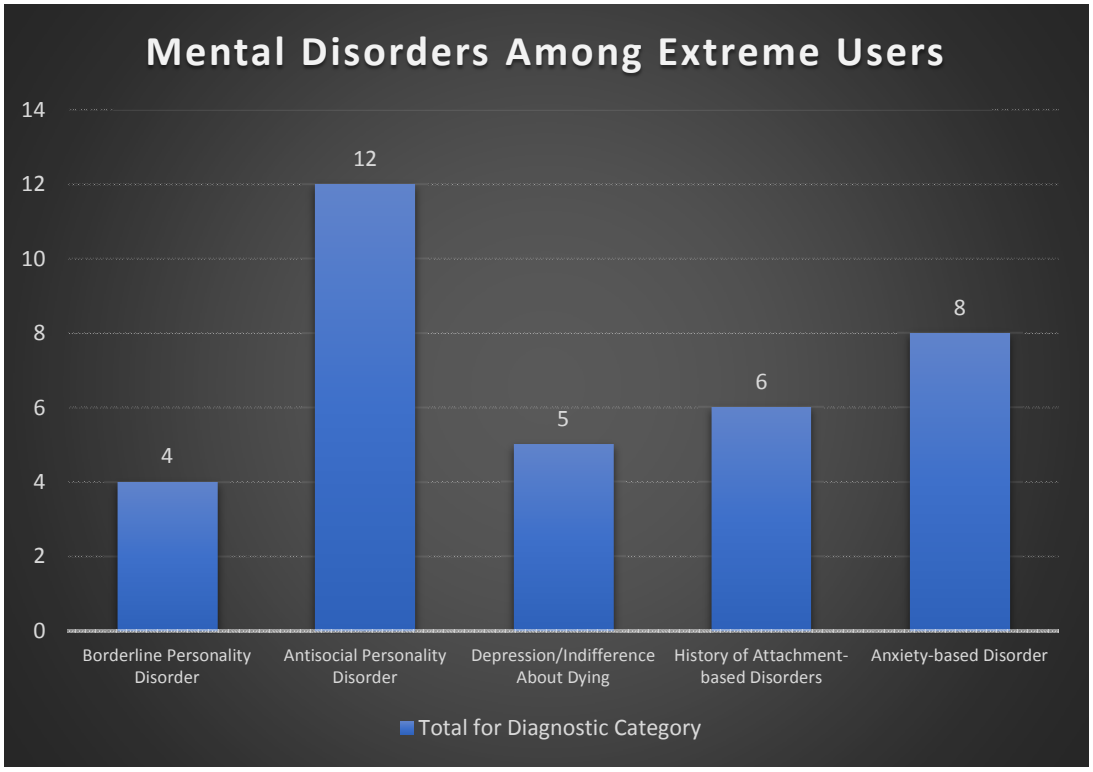
ASPD is characterized as failure to conform to social norms, poor impulse-control, manipulative behavior, irritability and aggressiveness, and reckless disregard for one's own safety. Similar to BPD, the personality factors associated with ASPD also lead to an ideal personality type that uses persistent DSH behavior as a mechanism to manipulate one's environment and the actors within one's environment. Since people with ASPD often have no regard for societal rules and norms, are not concerned about their safety, and are impulsive, these personality types are drawn to DSH, and make DSH behavior an appealing option to get one's needs met. Often, people who have ASPD and BPD tend to use DSH behavior to shock people within their environment. Further, these types of individuals will engage in DSH or threaten to engage in DSH to manipulate, control, or obtain a desired outcome. This done by using DSH (or the threat of DSH) to get loved ones or treatment providers do everything they can to meet the person's needs or to carry out the person's wishes to ensure the person does not engage in DSH behaviors. For example, many inmates with BPD or ASPD inform staff that if they don't receive a desired outcome, they will engage in DSH behavior.

Might Mental Disorders Explain Severe and Persistent DSH?

As previously explained, all 25 of the inmates classified as "extreme" in the frequency of their DSH appear to have been motivated by instrumental reasons—either to "punish" or "retaliate" against correctional staff or to achieve some desired end such as a

change in correctional environment (i.e., transfer to a different unit or prison, admittance to a mental health program, etc.). But lengths to which some of these inmates go to achieve their goals may seem irrationally excessive—especially when self-inflict injuries are severe to life-threatening. A review of these inmates' medical files reveals a possible explanation. To wit, the overwhelming majority of inmates who engage in extreme levels of frequent self-harm present with select personality disorders. Specifically, 19 of these 25 inmates (76%) presented with some of the more severe diagnostic criteria for Antisocial Personality Disorder (APD), Borderline Personality Disorder (BPD), or both. See Figure 4 for a description on how the Extreme User inmates fall into five categories of mental disorders: Borderline Personality Disorder, Antisocial Personality Disorder, Depression/Indifference About Death, having a history of an Attachment-based disorder, and an anxiety-based disorder

Figure 4: Mental Disorders Among Extreme Self-Harmers



A Summary of Key Diagnostic Criteria for ASD and BPD

Recall that BPD involves a "pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following [criteria]" (APA, 2013, p. 663). One of the key diagnostic criteria for BPD is "[r]ecurrent suicidal behavior, gestures, or threats, or self-mutilating behavior" (APA, 2013, p. 663). Prevalence rates for BPD in the general population are between 1% and 2% (Kraus & Reynolds, 2001). But these rates soar to between 12% and 30% among correctional inmates (Conn et al., 2010; Douglas et al., 2007).

The DSM-5 provides the following diagnostic criteria for APD: "The essential feature of the antisocial personality disorder is a pervasive pattern of disregard for, and

violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood… deceit and manipulation are central features [of this disorder]…" (APA, 2013, p. 659). The first five diagnostic criteria for APD are as follows:

> 1. "Failure to conform to social norms with respect to lawful behaviors, as indicated by repeatedly performing acts that are grounds for arrest. 2. Deceitfulness, as indicated by repeated lying, use of false aliases, or conning others for personal profit or pleasure. 3. Impulsively or failure to plan ahead, 4. Irritability and aggressiveness, as indicated by repeat physical fights or assaults, and, 5. Reckless disregard for safety of self and others." (APA, 2013, p. 659)

The prevalence rate for APD in correctional populations is quite high, with estimates consistent ranging between 50% and 80% (Cunningham & Sorensen, 2007; Edens et al., 2015).

Self-harming behaviors are "very common" among those diagnosed with BPD (APA, 203, p. 664). And in addition to aggressive, impulsive, and manipulative behaviors all being among the hallmarks of APD, suicidality is also frequently comorbid among persons with APD (Glenn et al, 2013). Thus, either diagnosis might explain the frequency of DSH among the 25 inmates studied for this chapter. But comorbidity across both disorders is relatively common among correctional environments, especially in men's prisons (Black et al., 2010; Conn et al., 2010; Douglas et al., 2007). The combination of symptoms across both disorders provides a powerful potential explanation for those who self-inflict serious to life-threatening injuries.

DSH Among Inmates with BPD

Inmates #3, 10, 13, and 22 satisfy the diagnostic criteria for BPD; indeed, all four present with nearly all relevant symptomatology. For example, Inmate #10 has demonstrated consistent patterns of tumultuous and intense interpersonal relationships, including shifts between extreme valuation and devaluation of such relationships with his own family members and even with correctional staff. This inmate was very impulsive and exhibited inappropriate and extreme anger that he often had a difficult time controlling. These characteristics can contribute to high rates of severe self-harming behaviors (Conn et al., 2010). For instance, a mental health clinician was late to one of this inmate's weekly therapy session. In response to the clinician's tardiness, this inmate angrily and impulsively swallowed several razor blades in front of the clinician.

To prove his point further, when Inmate #10 was taken for X-rays, he was urinating in the X-ray machine, chewing on his I.V. lines, biting his lip, spitting blood onto the walls and ceiling of the room, and was spitting on staff. When this inmate saw his assigned mental health clinician the next day— while he was secured to a 6-point restraint bed to disallow the inmate from engaging in DSH behavior— he yelled at the staff member, "Is this what you wanted?! This is all your fault! I'll bet you're never late to a therapy session with me again!" Notably, prior to this situation, the inmate held the clinician in high regard; however, because of the delay in his therapy appointment, the clinician was now devalued, likely due to feelings of abandonment, another important feature of BPD (APA, 2013, p. 663).

During another incident, Inmate #10 grew angry at a mental health staff member because the staff member did not fix a perceived wrongdoing that happened to the inmate

within his desired timeframes. To "get back at" or to "punish" the staff member, this inmate swallowed several foreign metal objects (including razor blades and opened nail clippers). He was subsequently placed on suicide watch and provided with increased medical and mental health services. After the inmate was placed on watch, the inmate threw-up a razor blade, cut the side of his neck (a wound that required stitches), and proceeded to do jumping jacks to ensure his blood was splattered all over his watch cell. When another mental health staff member went to speak with the inmate, the inmate grew upset and pulled each of the stitches out one-by-one while yelling at the staff member. This inmate appeared to engage in this type of behavior to "punish" people for perceived transgressions, to control people in his environment, and to watch people's reactions to his DSH behavior.

DSH Among Inmates with APD

Inmates #2, 4, 9, 12, 14, 16, 17, 18, 19, 20, 23, and 25 meet the criteria for APD. These inmates tended to manipulate other inmates and staff in order to get their needs met, they were impulsive and acted without thinking about long-term consequences, they were often irritable and aggressive, and showed indifference in terms of their safety and the safety of others. These behavioral features also translate well into extreme users as these types of individuals were apathetic about their safety and were prone to manipulating others to get a desired outcome.

Additionally, three inmates consistently exhibited one of key characteristics of APD in terms of their violent behavior towards themselves and correctional staff. During the timeframe relevant to the present study, Inmate #2 engaged in 38 DSH events, Inmate #14 engaged in 35 DSH events, and Inmate #19 engaged in 85 DSH events during the

time period included in this dataset. Notably, all three of these inmates are maximum security in terms of their custody level. This is unsurprising insofar as all three had such significant histories of violent and aggressive behaviors while in prison that correctional officials used enhanced security protocols when dealing with these inmates. For example, not only were these inmates transported to therapy and medical appointments while secured to a gurney, but also their transports required security supervisor presence, several officers, and a video camera on the inmate to record any violent behavior.

In terms of DSH behavior, these three inmates never required transport to a community hospital for medical treatment after a self-harm event; their DSH was primarily superficial. Additionally, these three inmates often reported that they engaged in DSH behavior for manipulative reasons, such as to obtain a television or radio, receive medical attention within their required timeframes, or to get attention or their needs met from security staff.

Inmate #19, who meets the diagnostic criteria of APD, engaged in DSH behaviors that primarily included head banging (which was severe enough at times that it alarmed correctional workers) and superficial cutting, and they were coded self-injurious in nature (versus a suicide attempt). He engaged in DSH to draw attention to himself and his concerns, such as when he was not given medical attention or a state-issued appliance within his timeframes, or when he felt disrespected by a staff member. Inmate #19 also reported that he enjoyed watching staff have a fear or frightened response to his jarring DSH behavior.

One example of his head-banging behavior was when this inmate requested non-emergency medical attention from a nursing staff member. The nurse advised the inmate

she would address his request once she completed passing medication to other inmates on a small unit. Inmate #19 became so upset that the nurse did not immediately address his needs that he began banging his head on his cell front. This, in turn, forced the nurse to address his medical needs at that time.

On another occasion, Inmate #19 grew upset that a correctional supervisor did not call a higher-ranking correctional staff member about authorizing this inmate to have additional recreational time within his required time frames. The inmate reacted by barricading himself in his cell by putting his mattress and blankets up against his cell door, he ripped off bandages on a pre-existing wound, and opened the wound up by scratching himself, and smeared his blood over his body and cell. Notably, when Inmate #19 last released from prison, ADC immediately transferred custody to a county jail because the inmate had to face several charges for assaulting correctional security staff. Some of the staff assaults Inmate #19 was responsible for resulted in the staff member having to go to a community hospital for treatment.

The other two inmates also demonstrated violence not only towards themselves, but also towards others. Inmates #2 and 14 engaged primarily in superficial cutting DSH behaviors. Inmate #2 was also known to be highly assaultive towards correctional workers; in fact, he was sentenced to additional prison time for assaulting a correctional officer while in prison. During one instance of DSH, this inmate engaged in repeated superficial cutting behaviors to ensure he remained on the highest level of a mental health watch, which required security staff to observe the inmate constantly—24 hours a day. When asked why he continued to engage in DSH behavior, the inmate reported to mental health staff that by cutting himself, he knows that he will occupy both time and resources

while he was on mental health watch. He also acknowledged that his end goal was to be admitted specific mental health program. Thus, he engaged in DSH to manipulate staff into placing him in a housing location of his choice.

Inmate #14 similarly reported that he often engaged in DSH to manipulate his environment. This inmate was also verbally hostile to mental health staff, often yelling sexually explicit things. Additionally, this inmate was physically aggressive towards correctional staff, necessitating the use of extra security precautions when he was out of his cell. During one interaction with mental health staff, this inmate demanded to be transferred to a certain unit, he bragged about his numerous assaults on correctional staff, and he cut himself with a rock. This inmate also kicked a correctional officer in the head and was loudly verbally threatening other staff despite attempts to de-escalate the inmate. Another time, Inmate #14 engaged in repeated superficial cutting with pieces of metal he found in his cell. He reported multiple times that he was engaging in DSH in order to get admitted into a desired mental health program because he believed that program received more privileges.

Inmates #9 and 16 also demonstrated behaviors that are congruent with APD, although they did not exhibit high levels of violence towards others. Inmate #9 primarily engages in cutting DSH behaviors and admitted to staff that the cutting self-harm behavior he engaged in is largely for manipulation. During this 13-month time period, Inmate #9 engaged in repeated cutting behavior, often requiring stitches or butterfly wound closures, for the sole purpose of getting transferred to a desired housing location. Prior to engaging in DSH in hopes of getting transferred, Inmate #9 displayed verbally threatening behavior in an attempt to intimidate mental health staff into requesting a

transfer for the inmate to his sought-after housing location. Often this inmate would make veiled threats about the DSH behavior in which he would engage if he were not transferred to his desired housing location. Also, this inmate targeted mental health staff and informed them of his past violent behavior to ensure staff knew what he was "capable" of. After his repeated attempts to threaten and con his way into receiving a transfer failed, this inmate resorted to engaging in serious cutting behavior to manipulate his way to coveted housing.

Inmate #16 was distinct when compared to others with APD in the sample because he tended to be more impulsive and appeared to engage in DSH behaviors without completely thinking through the outcome of his behavior. Not only did this inmate engage in cutting behavior, but also, he impulsively set fires in his cell. During one such incident, the fire grew large quickly, which resulted in the inmate getting badly burned and having to be transported to the hospital for treatment. If security staff had not detected the fire, if the inmate's cell door had jammed, or if correctional staff had been unable to extinguish the fire in time, the inmate could have died. The inmate reported he lit the large-scale fire in his cell because a female correctional officer went under investigation for having an inappropriate relationship with him. According to inmate #16, the female officer uncuffed the inmate when he should not have been uncuffed, and he punched another inmate in the face. As such, security administrators believed that the female correctional officer had romantic feelings for the inmate. To convey his frustration, the inmate lit a large fire in his cell. Such behavior illustrates the impulsivity and limited regard for the safety of oneself and others that are characteristic of APD.

Depression and Indifference about Death

As previously discussed, diagnoses such as BPD and APD contribute to the risk-taking attendant to serious DSH. Whether part of the thought processes attendant to those personality disorders or for some other reason (most notably clinical depression), it is clear that several of the inmates who engage in extreme frequency DSH behaviors hold deeply ambivalent feelings toward death. In particular, Inmates #1, 10, 16, 22, and 24 not only expressed ambivalence about dying, but also repeatedly demonstrated that they were willing to "go the limit" [a direct quote from Inmate #10 when gearing up to harm himself], if self-perceived as necessary to prove a point, retaliate against correctional staff, or to obtain a desired outcome.

Inmates #1 and 10 each struggle with depression. Attendant feelings of hopelessness may have contributed to these inmates engaging in life-threateningly serious DSH. For example, both Inmate #1 and #10 engaged in serious cutting behaviors. Both also had a history of swallowing pieces of metal, glass, plastic, or razor blades that necessitated emergency surgery to remove these items from their body. On one occasion, after swallowing several items and in the transportation van headed from the hospital back to the prison, Inmate #10 began ripping apart the cloth seats and eating the cloth and foam from the van's seats. This inmate then attempted to strangle himself with a seat belt. On another occasion, Inmate #10 nearly attempted to hang himself when he was left alone in a perforated metal holding enclosure after he had become aggressive with medical and security staff (including smashing a medical staff member's laptop computer).

Inmate #1 is infamous in the Arizona prison system for his bizarre DSH behaviors. In addition to cutting his arms and swallowing objects, he frequently inserts

items such as glass, metal, pens, and pencils into his penis. In fact, this inmate primarily engaged in DSH that was categorized as overdose/ingestion/insertion during the study period. The analysis suggests that sometimes prison medical staff could remove items from his penis; however, this inmate often needed to be sent to community emergency departments to have items removed from his urethra. Further, Inmate #1 demonstrated that he either did not have the cognitive insight to verbalize why he engages in this type of DSH behavior, or he was reluctant to explain what functional purpose this behavior serves. This inmate often did not engage with mental health treatment staff after a cutting, swallowing, or insertion episode, and presented as dysthymic or depressed.

Both Inmates #1 and 10 exhibited depressive symptoms after having engaged in on or more a serious DSH events. Specifically, after events of this nature, both inmates slept excessively and declined to interact with other inmates or correctional staff. In fact, these two inmates barely engaged with anyone. Such changes in sleep patterns and social activity levels are common symptoms of major depression (APA, 2013, p. 160). Somewhat uncharacteristic of the disorder, however, after a few days, both inmates returned to their respective baseline behaviors in terms of who they interacted with others.

Similarly, Inmate #22 and 24 also appeared to have experienced depressive symptoms. In terms of these two particular inmates, their more serious DSH behaviors appears to at times be linked to past negative life experiences or trauma. This added component of (sometimes) using DSH to punish themselves or to compulsively cope with negative emotions conveys a sense of willingness to die. Inmate #22 presented with a blend of an Attachment-based Disorder (that likely began as an infant) and BPD. The

DSM-5 indicates that "social neglect" is a diagnostic requirement Reactive Attachment Disorders, which leads to the development of later problematic behaviors (APA, 2013, p. 265). The DSM-5 defines social neglect as "the absence of adequate caregiving during childhood," and is a diagnostic criterion for Reactive Attachment Disorder. The DSM-5 further states that those who have experienced social neglect during their childhood, often exhibit "externalizing angry and aggressive symptoms" (APA, 2013, 265). Often, what is observed among extreme users in this study, is that many experienced varying degrees of neglect, abuse, and trauma during their childhood. These experiences have contributed to later deliberate self-harming behavior (i.e., anger and aggression directed towards themselves) while incarcerated during adulthood.

For example, Inmate #22 reported significant neglect and abandonment during his childhood years. According to this inmate, he is not close with his father, and his mother was addicted to drugs, had been in-and-out of prison, prostituted herself to buy drugs, and frequently left him home alone without supervision or food during his childhood. This inmate reported that on several occasions during his childhood, he had to steal food from stores in order to feed himself. This inmate engaged 27 DSH events during the time period relevant to this study, a few of which were life-threatening. For example, he serious cut him and he ingested items such as wires, cables, cords, and razors.

Inmate #24 engaged in 47 DSH events, and exhibited signs of a Post-Traumatic Stress Disorder (PTSD). According to the DSM-5, the essential feature of PTSD is the "development of characteristic symptoms following exposure to one or more traumatic events" (DSM, 2013, p. 274). The DSM-5 further indicates that individuals who

experience symptoms of PTSD may exhibit "fear-based re-experiencing, emotional, and behavioral symptoms." Also, people with PTSD may experience "negative cognitions," and exhibit signs of hyper-arousal and "reactive-externalizing symptoms" (DSM-5, 2013, p. 274). In contrast in Inmate #22, #24 inmate reported good family support and a relatively normal upbringing, although he hinted that his father was physically aggressive at times while he was growing up.

However, Inmate #24 was previously a combat war veteran, and reported he was in a special operations unit when he was in the military. When this inmate committed his crime, he reported he experienced a flashback and thought he was back in combat. This inmate's combat war experience, combined with his history of being a public servant and being incarcerated, could have led to the inmate experiencing symptoms of PTSD. As such, it appears as though Inmate #24 has developed the belief that in order to remain safe in prison, he needed to engage in DSH behavior in order to remain on a mental health-based watch or in a mental health program. This inmate tended to engage in blunt force trauma, at times banging his head so hard that he had to be placed in therapeutic restraints or given emergent psychotropic medication. Inmate #24's frequent severe head-banging conveys a sense of indifference about dying.

Inmate #16 also appears indifferent about dying. He engaged in 56 DSH events, which were mostly cutting behaviors. This inmate reported that he first attempted suicide during his pre-teen years. By the age of 47, he had engaged in many serious DSH events, including 56 during the time period included in the present study. In addition to setting large-scale fires in his cell that could have resulted in his death, this inmate also demonstrated serious cutting behavior. In fact, he cut his femoral artery during one

instance and he deeply cut his arm vertically during another event. Both cutting incident required emergency transport to a community hospital. On a different occasion, after going to the hospital for another serious cutting episode, and while in the transport van back to prison, the inmate manipulated his way out of his handcuffs and re-opened his cutting wounds. This, in turn, necessitated the security transport team to turn around and bring the inmate back to the hospital. Finally, Inmate #16 also demonstrated a history of swallowing large items, such as pens, pencils, batteries, and pieces of plastic and metal. The seriousness of his DSH conveys his ambivalence about death.

Custody Level and Extreme Frequency of DSH

Research Question #1 concerns whether there are particular factors within the prison setting that are associated with high levels of DSH from which environmental factors might be inferred as contributory causes of DSH.

At the outset, it is important to note that an inmate's custody level is determined based on a multiplicity of factors, including criminal history, the nature of the charge for which the current period of incarceration is being served, known gang involvement, and behavior while in prison. The ADC has four custody levels that increase in level of security; minimum, medium, close, and maximum. The vast majority of the 25 inmates in the sample were housed in the two highest custody levels. Specifically, 8 of the 25 (32%) were in close custody and 11 (44%) were in maximum custody. By contrast, only one inmate (4%) was in minimum custody and five inmates (20%) were in medium custody. This finding is unsurprising because inmates are housed in higher custody levels because they exhibit problematic behaviors, including violence towards others that requires more intense management than can be provided at lower security custody levels.

It is important to note that the higher the custody level, the less freedom inmates experience. When combined with the finding that inmates engage in DSH for instrumental reasons, DSH is one of the very few ways that inmates in higher custody levels can exercise any control over their surroundings. Put differently, in close and maximum custody settings, DSH is one of the only ways inmates might secure a change of environmental that either increases their safety, provides more privileges, or allows them access to desired services.

Inmate #16 is a maximum custody inmate who cut himself so seriously that he needed to be transported to a community hospital three different times in two-day period of time. This inmate reported that he engaged in these cutting incidents in order to be discharged from a certain maximum custody program and to punish ADC staff he believed were corrupt and not treating him fairly. Another example is Inmate #20, also a maximum-security inmate, who engaged in 41 total DSH events, including nine cutting events over a 60-day time span. He reported that these incidents were intended to get him transported to a desired mental health program not only because he disliked his housing assignment, but also because in a mental health program, he hoped to be afforded phone calls to his family and increased interactions with staff.

CHAPTER 5

DISCUSSION AND CONCLUSION

This dissertation examines the deliberate self-harm behaviors exhibited by state prison inmates in Arizona. Specifically, this paper evaluated four research questions: The general factors found in the prison setting that contribute to DSH behaviors, the common motives and reasons for self-harm, the shared characteristics among inmates who engage in high rates of DSH in the prison setting, the factors that contribute to increased or decreased rates of DSH behavior in prison, and whether or not prison inmates exhibit a decrease or increase in frequency of DSH behavior when they are moved to a new location within the prison setting. This Chapter evaluates the salient findings from both the quantitative and qualitative data analyses.

Methodology Review

Data used for this dissertation were gathered by the Arizona Department of Corrections (ADC). Self-harm event gathering practices were implemented in 2018 by correctional mental health staff. Each self-harm event that happened statewide was gathered, researched, and reported. Further, staff identified many relevant demographic factors about each self-harm event. For this dissertation, a 13-month time period was identified and used for analyses. During this time period, 2,844 self-harm events occurred in the 16 prisons in Arizona. These events were analyzed, and five categories were created (single, low, medium, high, and extreme). Inmates included in this dataset were placed in one of these five categories based on how many self-harm events they engaged in during the 13-month time period.

Limitations

This dissertation is largely exploratory and based on data made available by the Arizona Department of Corrections. As such, these data and the subsequent analyses do have some limitations. Although these limitations do not take away from the valuable and informative findings gleaned from these data and analyses, a discussion on the inherent limitations is necessary.

First, these data are cross-sectional, so the 13 months included in the dataset is merely a snapshot of time and only captured self-harm events that occurred within that time period. As such, some inmates are only represented in these data for a few months. This could be due to inmates who entered into prison part way into the 13-month time period, or inmates who released from prison during the timeframes included in the dataset. For instance, an inmate who only appears once in this dataset might actually have many more DSH events (either prior to the time period included in this dataset, or after the time period captured within this dataset). As such, given this dataset only includes a snapshot in time, it is possible that an inmate included within these data could have exhibited more frequent self-harming behavior with a different or expanded time period, had the inmate not released from prison, or had the inmate not been transferred to the custody of a different agency.

This limitation also sheds light on the need for longitudinal data on this topic. Longitudinal data would allow researchers to examine more inmates who engage in DSH, and not only inmates who engage in DSH within specific study timeframes. Further, longitudinal data would permit researchers to analyze more extreme users in the prison

setting, not just the inmates who engaged in enough DSH behaviors that they happen to have met the criteria of the extreme user category during the study time period.

Another limitation of this dataset is that it only contains self-harm events that occur in prison. As such, there are no data pertaining to each inmate's self-harm behavior history prior to being in prison. This is a limitation because there could be theoretical or functional differences between those who self-harmed prior to coming to prison, and those who self-harmed for the first time in prison. Having data on an inmate's self-harm history could shed some light on the contributing factors that either lead to increased DSH behavior in the prison setting, the start of DSH in prison, or why an individual might not engage in DSH while incarcerated.

An additional limitation of the data is that it only comprised of DSH events that were reported to correctional staff or were noticed by correctional staff. For example, if an inmate cut himself in private and did not disclose the self-harm to a staff member, and staff did not notice the cut, that self-harm event would not be captured in the data. This limitation is important in terms of the reason for the DSH behavior. Self-harm behavior that was not noticed by correctional staff could be different than self-harm behavior that was done for the purpose of being noticed. For example, if an inmate engaged in self-harm behavior for the purpose of mood regulation, and not for the purpose of changing their housing location or to obtain a desired outcome, they could have been motivated to engage in self-harm for different reasons. The mood regulation-based self-harm could be more likely to be not noticed by correctional staff. Subsequently, this type of DSH behavior could require a different intervention or treatment plan than DSH behavior that was readily noticeable by correctional staff.

There are limitations related to the reliability of the data. Many different clinicians reported self-harm events and made clinical decisions pertaining to the self-harm events. Subsequently, inter-rater reliability concerning the self-harm events could be low. Given that many clinicians from each prison complex reported DSH on a daily basis, the level of homogeneity or consensus that exist among factors reported about the DSH events in the data set could be less than ideal. Due to differing opinions about some aspects of the data, such as the intent of the self-harm behavior and the reason for the self-harm, a lack of consistency is likely present within the dataset. Future research should ensure that inter-reliability is achieved by focusing on making sure individual clinicians report the characteristics of the DSH event in a consistent manner.

Finally, like all qualitative research, the research presented in this dissertation is a result of a reflexive process (e.g., Altheide, 1996). While it is undoubtedly true that most researchers study that which interests them, having worked in corrections for 10 years means I brought my own experiences to this research. Although I made every attempt to be a neutral, objective researcher, given the reflexive nature of social interaction, my own viewpoints undoubtedly impacted the current research.

The research design and method used in this study was, in part, chosen to mitigate the unconscious biases that I may have brought to the social research conducted for this dissertation. Concerns regarding bias should be minimized given that I conducted a content analysis looking for manifest content that is not dependent on personal value judgments.

The reflexive impact of social research in this study is most likely to have manifested itself in the portion of Chapter 4 where I qualitatively analyzed the medical

files of inmates who engaged in DSH. Reflexivity, however, is not the same as the conventional notion of bias. It is something to be embraced and used for understanding. To minimize the impact of reflexivity insofar as it may have brought a bias to the research, I reflected upon and remained mindful of my professional experiences working in corrections and the impact that my past experiences and assumptions may have on my perspective while conducting this research. I also staffed cases with my colleagues to get their insights to ensure my analyses were consistent with their opinions. This was done to ensure my core assumptions and experiences did not negatively influence my analyses and research.

As for the conclusions presented in this chapter, I note that a researcher's own interpretations are always a part of the process of social research and this dissertation is no different. Future research will either corroborate or disagree with the findings presented herein.

Preliminary Answers to Research Questions

Research Question #1: Factors within Prison that are Linked with DSH Behavior

The data do not suggest any demographic factors, such as race or ethnicity, are significantly related to DSH. By contrast, however, there appears to be a number of environmental factors that are related to the prevalence of DSH behaviors.

First, the results indicated that there is a link between specific months of the year, quarters of the year, and specific shifts of correctional security staff and increased rates of deliberate self-harming behaviors. In terms of months, October and November were associated with the highest rates of DSH behavior, and May and July were the next highest months for DSH behavior. One possible explanation for the high rates of

deliberate self-harming behavior is that during summer months, inmates prefer to be housed in the air-conditioned cells of the suicide watch pod, where inmates are housed temporarily after they engage in DSH behavior. Also, October and November precede the festive holiday months (e.g., Thanksgiving, Christmas), so inmates might engage in higher rates of DSH as a means to cope with being away from home, away from their families, and reminded of good memories from the past. Similarly, Quarter #2 (October, November, and December) was linked with higher rates of DSH behavior, which also lends support to the notion that the holiday season is associated with higher rates of DSH events.

The results indicated that the time period between 12:00 PM and 6:00 PM is linked with high rates of DSH. This could be explained because most inmates are sleeping during the evening hours and into the morning. This finding could also be explained by the attitudes or unique culture of the shift of correctional officers that works during this time period; specifically, in regards of their approach to managing and interacting with inmates. For example, some correctional officers might have the skills, ability, or patience to de-escalate an inmate in a psychiatric crisis or in an emotionally charged state. However, other correctional officers might lack the skills to appropriately engage with mentally ill offenders or their approach further escalates these types of situations.

Another factor to consider is the actual time of day (12:00 PM and 6:00 PM) that is associated with higher rates of DSH behavior. For example, inmates could have had a negative social interaction earlier in the day, and engaged in self-harm as a means to go on a mental health-based watch status to leave their current housing location, or to cope

with their negative emotions. Another possible explanation is they were hoping for a favorable outcome when speaking with a security or mental health staff member in the earlier part of the day, but they did not obtain their desired outcome, so they engaged in DSH behavior as a mechanism to punish or retaliate against staff.

Research Question #2: Common Motives, Methods, and Reasons for Self-Harm in the Correctional Setting

The results indicate that 12% of the deliberate self-harm events that occurred during this study's timeframes was due to tension reduction and mood regulation reasons. This finding suggests that a portion of the self-harm events that occurred in the prison setting was due to inmates using self-harm to obtain a sense of relief or to cope with their negative emotions. This finding highlights a pattern of dysfunctional coping skills among inmates, and is particularly important for correctional practitioners. Specifically, this finding illustrates the need for quality mental health programming designed to target anxiety and mood disorders before these types of mental illnesses lead to more frequent and/or severe DSH.

The findings also suggest that 78% of deliberate self-harm that occurred in the prison setting was for instrumental reasons. This finding sheds light on the notion that inmates frequently use self-harming behavior to obtain a desired outcome or the purpose of secondary gain. The qualitative analysis suggested that this finding was also true for the inmates classified as extreme users. Further, the main instrumental reason many extreme user inmates cited for their self-harming behavior was to obtain a safer housing location or to be transferred to a desired housing location. Also, the results indicated that

cutting/burning/biting behaviors were the most common category in terms of deliberate self-harm behaviors among the inmate population included in the dataset. It is important to note, however, that just because someone had some instrumental goal or objective does not necessarily mean that that secondary gain was the sole reason for the DSH. Inmates have other ways to change their housing assignments, such as by requesting protective custody or committing disciplinary infractions. Mental illness may also play a part. In fact, it may be that mental illnesses like Antisocial Personality Disorder and Borderline Personality Disorder contribute to inmates' thought processes that DSH is a means of achieving instrumental ends. It may well be that people without any mental illnesses, for instance, would not harm themselves as a means of purportedly hurting or spiting someone else. This is notably evident among the inmates who engage in the most extreme levels of DSH, as all 25 of them had some psychiatric diagnosis.

Research Question #3: Common Characteristics of People Who Engage in Frequent DSH

The qualitative data presented on inmates who engage in extreme levels of DSH also provided insight in terms of the motives that contribute to high rates of self-harm. First, all of the extreme users engaged in deliberate self-harm for instrumental reasons. For example, many of the extreme users engaged in a significant number of self-harm events due to the perception that their safety was in jeopardy. As such, many of the extreme users engaged in frequent DSH behaviors in order to remain in what they considered to be safe housing, or they engaged in DSH in order to obtain a transfer to new housing unit they considered to be a safe housing location. Second, the vast majority

of the extreme users engaged in cutting self-harm behavior. Further, a large portion of the extreme users DSH behavior was considered superficial in nature.

In terms of common characteristics among inmates who engage in DSH behavior in the prison setting, the age group between 25 and 35 years old is linked with elevated amounts of self-harm behavior. The content analysis portion of this dissertation also suggests that mental illness is prevalent among the extreme user group. Specifically, many of the extreme users met the criteria for Antisocial Personality Disorder, and exhibited symptoms congruent with Borderline Personality Disorder. Lastly, a significant proportion of the extreme user group were classified as high custody level offenders.

Research Question #4: The Impact on Location Change on DSH among Extreme Users

The content analysis highlighted a noteworthy trend. Many of the extreme users significantly decreased their rate of DSH—or even completely stopped engaging DSH—once they were transferred to a housing location they perceived to be safe. This particular finding is perhaps most useful for correctional practitioners, and yields implications for correctional administrators in terms of addressing DSH in the prison setting. In contrast, a large number of extreme users persisted in terms of the frequency of self-harm events they engaged in, regardless of where they were housed or other changes in their environment. Overall, the results suggest that some extreme users abruptly stopped DSH after a significant environmental change; however, many other extreme users engaged in consistent amounts of DSH behavior regardless of location or changes in environmental factors.

The vast majority of the DSH behavior events occurred in five units within the Arizona prison system. One unexpected finding is that a significant amount of DSH behavior occurred while inmates were on a mental health-based watch status. Said differently, many inmates continued to engage in DSH behaviors while on a watch status and when housed in a suicide/self-harm-resistant cell. Notably, inmates were placed in a housing cell that is specifically designed to provide increased observation for inmates who have been determined to be unstable or actively suicidal. Given that a significant amount of self-harm occurred in cells designed to disallow self-harm, this finding has important implications for correctional practitioners (discussed in the policy recommendations section of this Chapter).

Findings and Experiential Learning Theory (ELT)

Experiential Learning Theory (ELT) serves as the theoretical framework used in this dissertation to explain the process by which individuals learn to engage in self-harm. The findings provide validation for the use of ELT to explain the DSH behavior that occurs in the correctional setting. ELT posits that one's experiences and environment play a significant role in the learning process. In this theoretical framework, there is also an emphasis on the *process* by which learning occurs. ELT also posits that the process of learning leads to knowledge that builds upon itself, and is, therefore, "formed and re-formed" through experiences.

The qualitative findings suggest that all of the extreme users engaged in DSH for instrumental gain, at least in part. This significant pattern lends support to ELT being the process that extreme users learned to engage in DSH. Since every extreme user engaged in DSH for instrumental reasons, this highlights the notion that these individuals not only

learned from their experiences in prison, but learned due to the unique factors in the prison environment that self-harming behavior has utility in prison. Within the extreme user group, there were two types of extreme users: Those who were new to engaging in DSH, and those who previously engaged in DSH prior to coming to prison to cope with their negative emotions and life experiences. However, it is important to note that both groups learned the value of DSH behavior in the correctional setting.

For example, a number of first-time self-harmers within the group of extreme users admitted that by observing other inmates engage in DSH behavior to get their needs met, they learned the functional purpose of DSH in prison.[2] As such, based on their experiences in prison, and their observations of the people within their environment, they learned to use self-harm as a mechanism to obtain a desired outcome. Similarly, inmates who engaged in DSH behavior prior to coming to prison also learned the utility of self-harm behavior in the prison setting. The findings suggest that inmates who were experienced self-harmers learned that in the correctional environment, DSH can be used for secondary gain and to get their needs met. For example, many extreme users engaged in DSH prior to their incarceration as a way to obtain a sense of relief or to cope with their difficult past life experiences. However, in prison, they learned through their experiences and their knowledge that was formed and re-formed that DSH behavior has value in prison. The fact that DSH is viewed as a mechanism for instrumental gain is also how DSH behavior is reinforced in the prison environment.

[2] The admissions were recorded in medical documentation, but health care providers did not record any verbatim quotations that can be reported here.

Given that engaging in DSH behavior helps so many inmates achieve desired goals or objectives, ELT might explain the prevalence of DSH behavior in the prison setting. It is important to note, though, that consistent with the theoretical framework, the systemic response from ADV likely serves to positively reinforce the behavior. Specifically, inmates get near-immediate attention from security, medical, and mental health staff. And they frequently get other desires met though changes in housing, mental health program, and the like. In light of this, it is important to identify how ELT could be used to develop alternatives to extinguish the behavior, rather than reinforce it. But this presents quite the conundrum.

To extinguish problematic behavior (DSH), the responses that follow the behavior must ones that do not positively reinforce DSH for instrumental reasons. Theoretically, this could be done in a number of ways, such as limiting the number of staff members who respond to DSH-based crises and, after making sure that injuries are treated, being mindful that long-term rewards do not satisfy the instrumental goal underlying the self-harming behaviors. In other words, making sure that inmates do not receive the outcomes they desire would go a long way at extinguishing the behavior. Similarly, ELT suggests that reinforcing desired prosocial behaviors might help to decrease the incidence of instrumental DSH. But given the underlying reasons for engaging in DSH—especially those related to safety concerns—it would cruel and inhumane not to address those underlying issues. It well may be impossible to avoid this double-edged sword. But there are some policy changes that might help to mitigate the some of the underlying issues—especially those concerning safety and mental health issues—that might decrease DSH behaviors before a cycle of behavioral reinforcement facilitates its continued use.

Policy Recommendations

Three findings provide information that can inform correctional practitioners. First, the finding pertaining to the significant number of extreme users who engage in high rates of self-harm due to personal safety concerns lends support to the notion that correctional staff should focus on resolving inmate safety concerns. Specifically, correctional practitioners should determine the root cause for inmate safety concerns and target the behaviors (e.g., substance abuse/drug debt, gang involvement) that contribute to the inmate's safety concerns. Correctional staff should also explore options pertaining to programs or housing locations that are designed to focus on resolving safety concerns among inmates. These types of programs should be specifically designed to assist inmates who engage in high rates of DSH for the purpose of remaining on a mental health watch and away from the rest of the inmate population. One recommendation is to implement a housing-based program that is designed to target inmates with safety concerns. Specifically, this program should allow for inmates to live, go to the dining hall, and to recreation separately from the rest of the inmate population. Further, a program of this nature should include intensive mental health services to focus on and treat the dysfunctional behavior that contributed to the inmate's safety concerns. Providing these types of inmates with a specialized and safe housing option would likely reduce the amount of self-harm that occurs in the correctional setting by providing them a housing status that they perceive to be safe.

Second, given that every extreme user is diagnosed with a mental disorder, correctional practitioners should design mental health programs for the inmate population that focus on addressing criminogenic factors and mental health symptoms that are linked

with DSH behaviors. Specifically, the results indicate that BPD, ASPD, and anxiety disorders are linked with increased rates of DSH behaviors. As such, it is advisable that correctional and mental health personnel in the correctional setting design mental health programs that target symptoms of these disorders that contribute to higher rates of DSH behavior. From a correctional standpoint, it may be helpful to purposefully select security staff who have demonstrated an interested or an ability to interact with and manage inmates who suffer from these types of disorders. The findings also highlight that it may be helpful to provide specialty training for security staff who are assigned to mental health programs that are designed to house offenders who exhibit mental disorders that are associated with frequent DSH behaviors.

Lastly, since a significant portion of the DSH behaviors occur after the inmate is placed on a mental health-based watch status, it would be worthwhile for correctional staff to review the process for initiating a mental health watch, and the protocols that are in place to maintain the inmate's safety while on a watch status. For example, many DSH events that were included in the analysis occurred while the inmate was placed on a mental health watch. In theory, mental health watch cells and the conditions for mental health watches are purposefully designed in order to disallow an inmate from engaging in DSH behaviors. However, the results indicate that these efforts do not translate as intended into practice. As such, the results indicate that correctional staff should amend their policies pertaining to mental health watches. For example, correctional administrators should consider more thorough searches of inmates placed on a mental health watch, and they should consider more frequent searches of cells designated for mental health watch purposes. Additionally, correctional security staff should consider

enhancing observation protocols when an inmate (who is on a mental health watch) is out of their cell (e.g., when obtaining medical treatment).

Future Research

Based on the findings of this study, it would be beneficial to explore in more detail the mental health disorders that are linked with high rates of DSH in prison. More information is needed in terms of how mental illness impacts DSH in prison. Information gleaned about the link between mental disorders and DSH could be used to establish mental health treatment programs targeted to address DSH behavior in an effective manner. The present analysis suggests it would also be worthwhile to examine the lethality or seriousness of the DSH behavior in more detail. Examining the seriousness of the DSH behavior in the correctional setting could inform correctional staff in terms of which self-harmers are at the most risk to cause serious damage to themselves or who are at most risk to commit suicide. Also, targeting inmates who engage in serious DSH behavior would be beneficial from an ethical standpoint (in terms of reducing individual suffering), and it would also be helpful from a financial standpoint. Targeting serious self-harmers would likely reduce the number of serious self-harm events, which would translate into less money being spent on medical treatment and less staff resources needed to treat and manage these types of individuals.

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