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EXPLORING THE PHENOMENON OF SELF-MUTILATION AMONG ADULT MALES IN A CORRECTIONAL SETTING: A QUANTITATIVE AND QUALITATIVE INQUIRY

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EXPLORING THE PHENOMENON OF SELF-MUTILATION AMONG ADULT

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AND QUALITATIVE INQUIRY

By

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DISSERTATION

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Dedication

This dissertation is dedicated to my parents, Pedro and Avelina Morales who gave me an endless supply of love and support. To my family Arlene and Samantha Arellin who were always there for me during this journey. To my sister Toni Castillo who believed I could accomplish anything and cheered me on to the finish line. Special thanks to Paula Meek, Suzanne Lareau, and Pedro Guarnero for their encouragement and kind words.

Finally to the men who participated in this study and bravely shared their stories. Without their participation, this research would not have been possible.

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ABSTRACT

The overall aim of this mixed method inquiry was to increase understanding of self-mutilation by adult males in a correctional setting. This study explored the self-mutilating attributes such as type and motivational factors, to identify factors associated with self-mutilation among adult males in a correctional setting.

Self-mutilation has classically been associated with adolescents and females; however, behind the walls of many correctional institutions, adult males are engaging in self-mutilating behavior. Self-mutilation by this population can have serious health consequences, impact the safety of the institution, and also have fiscal consequences. While this remains a serious *forensic* issue, there is a paucity of research concerning the types and extent of self-mutilation behaviors and the motivating factors linked with these behaviors in men (Favazza, 1996; Groves, 1993; Jeglic, Vanderhoff & Donovick, 2005; & Shea, 1993).

A *mixed method triangulation design* was chosen for this study. The <u>initial</u> phase of the study was quantitative, using two instruments: the Deliberate Self-Harm Inventory (DSHI) that measures sixteen different types and frequency, and the Self-Injury Motivational Scale (SIMS) that measures six different motivational factors. The <u>second</u> phase used a visual ethnographic approach that integrated a photo-elicitation technique.

The sample consisted of forty-two males age 20 to 50 years and was drawn from the New Mexico Department of Corrections level I-III. The sample was *ethnically* 40% Hispanic, with *Race* 76% white. All participants completed both phases of the investigation.

Fifteen of the 16 forms of self-mutilation were endorsed by at least one of the participants. Using the DSHI, the most predominant type of SM reported was cutting, followed by head banging and sticking self with sharp objects. Thirty-nine of the 42 participants required medical attention or hospitalization due to self-mutilation behaviors. Thirty nine (93%) reported engaging in "cutting" in a combined sample total (lifetime events) of 2,746 times with one individual reporting having cut over 700 times in his life time. Motivational factors associated with "cutting" were predominantly *mood dysregulation*, *communication* and *addictive* quality. With the merged data, the motivational factor identified as a key impetus for self-mutilation behaviors was mood modulation.

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Chapter I

Introduction

Behind the walls of many correctional institutions adult males are engaging in self-mutilating behavior. Self-mutilation among adult males can be brutally disfiguring, physically debilitating, emotionally exhausting, or result in death. Self-mutilating acts frequently documented among this population can include: foreign object insertion in the abdominal cavity, urethra or eye; skin cutting; razor slashing; swallowing objects such as razor blades; self-inflicted burning; purposeful interference with wound healing; and wound excoriation (Favazza, 1996: Haines, & Williams, 1997). If the underlying psychopathology related to the self-mutilation, as well as the self-inflicted wounds themselves remain untreated, there is an increased risk for accidental death or suicide in this population.

Self-mutilation is at epidemic proportions among correctional settings nationwide. New Mexico's adult male correctional facilities, like other correctional facilities nationwide, are faced with the financial strain of treating self-mutilating injuries, and the costly reallocation of staff resources in managing this behavior. Successful mental health assessment and treatment of this population is difficult due to the lack of understanding regarding the function this behavior serves among incarcerated adult males. There is a paucity of research addressing the relationship among function, severity, frequency, type, and duration of self-mutilation among adult males who are incarcerated. Exploratory research is needed to increase the understanding of adult males who engage in self- mutilating behavior, and provide the groundwork for future research. Understanding this behavior in these men, may provide insight into understanding and therefore treatment approaches in other populations known to engage in self-mutilation *e.g.* adolescents and females. The purpose of

this mixed methods study was to explore the phenomenon of self-mutilation from various perspectives and identify factors that influence the severity, frequency, and type of self-mutilation among adult males in a correctional facility.

The overall aim of the study was to increase awareness and understanding of the phenomenon of self-mutilation by adult males in a correctional setting. This study explored the self-mutilating attributes (such as type, motivational factors and predisposing characteristics), to identify potential risk factors for self-mutilation among adult males in a correctional setting. It was also intended to enhance the understanding of health care practitioners and mental health providers in correctional facilities who assess and treat adult males engaged in self-mutilating behavior. The specific Aims of the study were to:

1. Identify the relationships among age, motivational factors and the frequency of self-mutilating behavior.

2. Determine which specific motivation factors are associated with the type and severity of self-mutilating behavior.

3. Explore the meaning self-mutilation possesses for adult males in a correctional setting.

4. Explore in greater depth motivational factors that influence self-mutilating behavior among adult males in a correctional setting.

The first two Specific Aims involved primarily quantitative methods and data; the third and fourth Specific Aims involved primarily qualitative methods and data. As an exploratory study, no specific research hypotheses were proposed. Results of the study are expected to provide an empirical basis or foundation, informing hypotheses for future studies.

Background Information

       Defining self-mutilation. Several terms have been used in the literature to define

and describe self- mutilating behavior. Within the literature, the following terms refer to this

phenomenon: auto-aggression, intentional injury, self-injurious behavior, self-inflicted

behavior, parasuicide, self-wounding, symbolic wounding, masochism, deliberate self-harm,

self-harm, local self-destruction, delicate self-cutting, attempted suicide, and focal suicide

have been used (Clark & Whittaker, 1998; Favazza, 1996, 1998; Feldman, 1988; Herpertz,

1995; Webb, 2002). While all of these terms are somewhat similar, they differ in their

exclusion or inclusion of suicidal intent. The operational definitions of the different terms

cause linguistic and conceptual confusion and conflict within the literature. For instance,

self-harm is used in the literature to describe a wide range of behaviors, from suicidal

behavior, self-mutilation, overeating, smoking, to substance abuse (Favazza, 1996; Mina &

Gallup, 1998; Taylor, 2003). Consequently, the lack of conceptual and operational clarity

clouds the results of investigations and hampers understanding of the phenomenon of self-

mutilation. In this section, common characteristics of self-mutilation will be examined, and

the specific definition used in this investigation will be explicated.

       Unlike suicidal behavior, self-mutilation is almost counter-intuitively a form of self-

healing or self-soothing, and the intent is not death (Favazza, 1996). This is not to say that

an individual who self-mutilates cannot become suicidal over the course of a lifetime. The

most commonly used clinical definition of self-mutilation in the literature was developed by

Armando Favazza (1996), who described self-mutilation as a complex group of behaviors in

which there is deliberate destruction, or alteration of body tissue without conscious suicidal

intent (Favazza, 1996). Favazza further defined self-mutilating behavior as either a cultural

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practice or pathological behavior. Cultural practices of self-mutilation involve customary, accepted behavior that is embedded in tradition and spiritual beliefs. Pathological self-mutilation involves the presence of a psychological distress or mental illness (Favazza, 1989). Self-mutilation is further defined and classified into three subcategories according to the degree of severity, rate, and pattern of behaviors. These categories include: major self-mutilation, stereotypic, and moderate/superficial (Favazza, 1989). For the purpose of this dissertation, *moderate/superficial self-mutilation* will be explored and defined as the deliberate self-destruction or alteration of body tissue without conscious suicidal intent (Favazza, 1989).

Moderate/superficial self-mutilation is epitomized by skin cutting and burning. It is a common behavior that has received the most examination and analysis in the literature. Self-mutilation usually reflects the presence of psychopathology associated with a broad variety of conditions such as personality disorders, eating disorders and factitious disorders (Favazza, 1996). Skin cutting is the most common behavior within the scope of moderate/superficial self-mutilation. As many as 75% of habitual self-mutilators use multiple methods and instruments (e.g., knife, paper clips, staples, etc.) (Favazza, 1996). Skin cutting is repetitive and is exclusive of any general cognitive impairment (i.e. associated with a neurological illness) (Suyemoto, 1998).

Prevalence of self-mutilation in a forensic population. Self-mutilation is a health problem that is observed in 4% of the general population, 14%- 35% of all college-age populations, and 21% of the adult psychiatric inpatient population (Klonsky, Oltmanns, & Turkheimer, 2005; Nock & Prinstein, 2004). It has been postulated that prison inmates have the highest prevalence of self-mutilation among all subpopulations investigated. It is

estimated that 20% to 50% of all offenders engage in some form of self-mutilation during their incarceration period (Brooker et al.; Favazza, 1996; Haines, Williams, Brain, & Wilson, 1995; Nock & Prinstein, 2004; Osuch, Noll, & Putman, 1999; Shea, 1993).

Establishing accurate data on the number of men who self-mutilate is a daunting task due to inconsistencies among operational definitions, issues of data gathering, underreporting, misdiagnosis, gender bias, and lack of researchers exploring self-mutilation in males (Favazza, 1996; Suyemoto, 1998; Taylor, 2003). Males have been researched in a limited number of studies (Gratz & Chapman, 2007), but reports indicate that self-mutilation rates are similar among women (Gratz & Chapman, 2007). This study is therefore one of a few that explores the phenomenon of self-mutilation among males.

Function of self-mutilation. The research conducted on the function of self-mutilation has primarily been conducted on females and adolescents. Multiple functions or reasons for self-mutilation have been suggested such as; tension reduction, a form of communication, regulation of affect and emotion, a need for social or behavioral reinforcement, a method to return to reality or prevent dissociation, an attempt to influence others, and means of venting anger or expressing emotional pain (Gratz & Chapman, 2007; Osuch, Noll & Putnam, 1999; Nock & Prinstein, 2005). There is a lack of research in the area of self-mutilation and its function among adult males, and, in particular, those who reside in a correctional facility.

Theoretical Framework

The theoretical framework used to explore the phenomenon of self-mutilation among adult males in a forensic setting was based on the fundamental tenets and assumptions of Beck's Cognitive Behavioral Model. Basic premises of the Cognitive Behavioral Model are

that abnormal thinking causes abnormal behavior, and that an individual's emotional

reactions and behavior are strongly influenced by cognitions (thoughts, beliefs, self-

interpretations and meanings given to life events) (Beck, 1999) (Figure 1.). Cognition is

multifaceted, consisting of different levels of thought. The most common level of cognition

is a negative automatic thought that is fundamental to the Cognitive Behavioral Model (Beck,

1999). Automatic thoughts are a stream of negative thoughts that are or can become

conscious, happen involuntarily without effort, and directly influence emotions (Beck, 1999;

Benzies & Allen, 2001). Beck (1999) suggests that thinking patterns are laid down in

childhood, and negative thought patterns are then triggered automatically in adulthood.

Individuals form many self- concepts (attitudes and generalizations about self) based on

interactions with the environment.

Activating Event • Actual Event • Self-Interpretation	Automatic Thoughts/Beliefs • Rational • Irrational	Consequences • Emotional • Behavioral • Other Thoughts
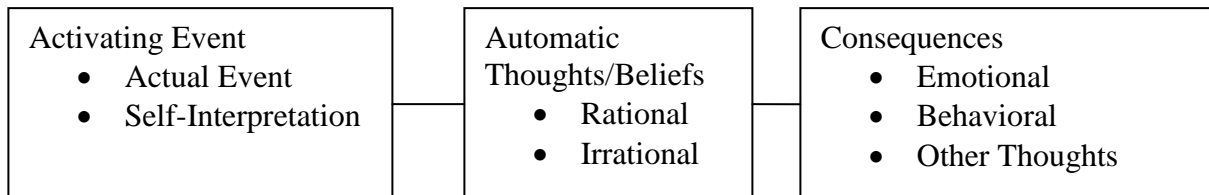
Figure 1. **Beck's Cognitive Behavioral Model of Self-Mutilation** (Beck, 1999)

Beck's Cognitive Behavioral Model (CBM) became a foundation for the phenomenon

of self-mutilation (Figure 2), to frame the exploration of self-mutilation among incarcerated

adult males. The Cognitive Behavioral Model of Self-Mutilation (CBMSM) was developed

by this researcher to illustrate how negative external influences (e.g., childhood trauma) give

rise to negative internal influences (negative beliefs or core values pertaining to how one sees

oneself and others in the world) that produce negative thoughts, patterns, or core beliefs.

These negative core beliefs, core values, and automatic negative thought patterns are

triggered in adulthood by critical incidents which then create negative emotional states

(depression, anxiety, and anger), that lead to an undesirable behavior. It is not the events themselves that upset people, but instead the meaning that is given to the particular event (thoughts, images, beliefs, attitudes) that in turn, influences individuals' responses and how they handle their emotions distress (Beck, 1999).

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              │  Internal Influences │
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        │     │     and others)     │
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        │     └─────────┬─────────┘     └──────────────────┘
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        └────▶│   Self- Mutilating │
              │      Behavior      │
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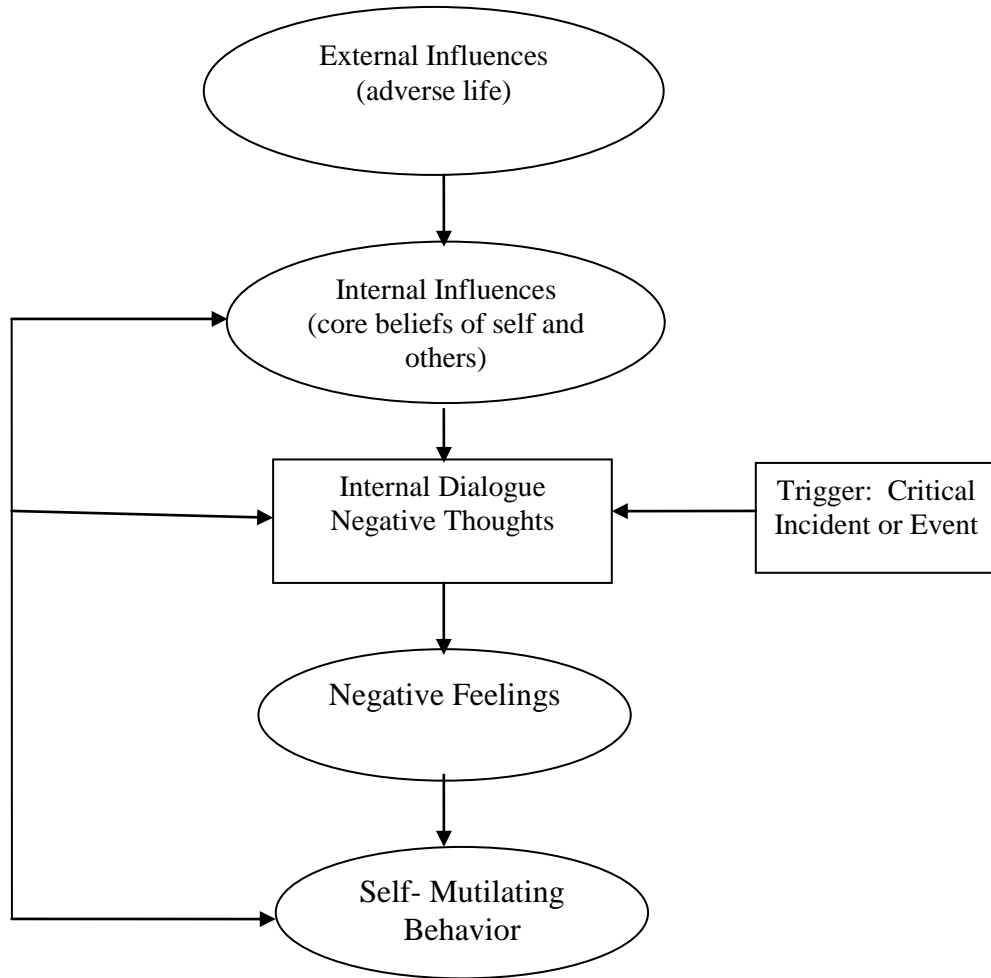
Figure 2. **Cognitive Behavioral Model of Self-Mutilation**

External influences. External influences or risk factors associated with self-mutilation are most commonly based on the experiences of women. In one of the few studies including males (of 133 undergraduate students ages 18-49, a third were male), risk factors for self-mutilation were different among men. The purpose of that study was to examine risk

factors, including childhood trauma (such as sexual and physical abuse, and childhood neglect). The strongest predictor for self-harm among men was childhood separation (primarily from the father) and for women, the strongest predator was dissociation, followed by insecure paternal attachment, childhood sexual abuse, maternal emotional neglect, and paternal emotional neglect (Gratz, Conrad, & Roemer, 2002). Other studies of external influences have focused on parental bonding. There is a paucity of literature concerning risk factors overall and self-mutilation among males in particular.

Internal influences. Internal influences are most commonly reported in clinical case studies of women primarily diagnosed with a borderline personality disorder (DSM IV- TR Code 201.40) or in adolescent females. Internal influences identified include: feelings of perceived interpersonal conflict; self-induced anxiety; feelings of rejection, separation or abandonment. These findings suggest that anxiety and tension are the most common pathological conditions (internal influences) reported to play a significant role in self-anger, and feelings of powerlessness that lead to self-mutilation in women (Favazza, 1996: Haines et al., 1995). However, as noted, these case studies have been limited to those with borderline personality disorders.

Internal dialogue. Internal dialogue, or negative thought patterns concerning the events that happen in daily life, can be automatic and triggered by stressful events. Negative thought patterns can originate in childhood, and may become relatively fixed (Beck, 1999). Beck (1999) believed that these negative thought patterns form attitudes about self, the world and the future.

Negative feelings. Negative feelings are a product of distorted thoughts that cause psychological distress and give rise to suppressed or distressed emotions (Beck, 1999).

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Emotions (feelings) have a significant influence on the way we behave or react to the world. Negative emotions lead to negative behavior, triggering pessimistic or disapproving cognition or thoughts about self that become a vicious cycle of habitual negative thinking (Beck, 1999).

Favazza (1996) suggested that self-mutilation serves as a cathartic release of emotions such as anger, or anxiety toward oneself, others, or an institution. Self-mutilation is a form of affect regulation, whereby emotional relief is obtained (Favazza, 1996; Osuch et al., 1999). While internal influences have been reported in clinical case studies, there are major gaps in our understanding of internal influences among adult males who engage in self-mutilating behavior.

Risk factors for self-mutilation among incarcerated males. A study conducted by Gratz & Chapman (2007) examined the role of emotional regulation and childhood maltreatment, in the development and maintenance of deliberate self-harm (DSH). The study was conducted with 97 adult male students in an undergraduate psychology class in which 44% reported a history of deliberate self-harm. They found that risk factors such as childhood physical abuse and emotional dysregulation distinguished men who frequently engaged in DSH from men without a history of DSH. The findings further suggested that adverse life events were critical in triggering DSH. Understanding self-mutilation, especially among adult males, is in its infancy. Further research is needed in order to understand and address the phenomenon of self-mutilation in adult males including gender differences, risk factors and the role of child abuse.

To summarize the scenario that might lead to self-mutilation behavior, the following exemplar is presented, based on the Cognitive Behavioral Model of Self-Mutilation. A male

child who experiences childhood abuse or abandonment (external influences) forms negative

beliefs about himself and trusting others. When this adult male is incarcerated, these

negative thoughts (internal dialogue) about his self- worth continue and intensify (e.g.,

whether he can trust his family and friends to continue loving him). These thoughts trigger

severe anxiety, along with feelings of negative self-worth. These negative cognitive beliefs

lead to severe anxiety that is only relieved through self-mutilating behavior that has been

formed through self-experimentation or peer influence. While the male experiences a

reduction in anxiety during self-mutilation, the anxiety is replaced by the previous negative

thoughts of "being a failure" due from self-mutilating, ultimately turning to self-shame and

guilt. These emotions allow for the self-mutilation to be repeated in a cycle that serves to

maintain/sustain the self-mutilating behavior. Cognitive behavioral theory provides the

framework by which this study will explore the phenomenon of self-mutilation among adult

males who are incarcerated.

Significance of the Problem

While self-mutilation among adult males may be perceived as similar to the

phenomenon in women, it is different in its function, lethality and etiology (Jeglic,

Vanderhoff, & Donovick, 2005). The function of self-mutilating acts in a forensic

environment is most often interpreted as attempts to manipulate the environment for

secondary gain (Jeglic et al., 2005). This viewpoint may result in caregivers not taking this

behavior seriously. Negating such behavior by ignoring it or intervening in a non-therapeutic

way has the potential for lethal results and may increase the risk of suicide, when the

manipulation of the environment is not achieved (Jeglic et al., 2005). Determining the

etiology through assessment of an adult male inmate who self-mutilates is difficult.

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Correctional personnel commonly lack an understanding of self-mutilation and therefore may make inaccurate assumptions about the function or purpose of the self-mutilating behavior (Jeglic et al., 2005). Their lack of understanding of this behavior is not surprising, since so little is known about this condition. Furthermore, treatment options are poor. Attempted interventions outside of the correctional setting have included primarily behavioral therapy or the use of psychopharmacological interventions, both of which have proven to be ineffective (Favazza, 1998).

The cost of treating the inmate and allocation of staff in treating self-mutilation in a correctional setting within the United States (US) has not been reported/calculated. Within New Mexico, these costs are also unknown. Correctional settings nationwide report shortages in correctional staff, and correctional facility populations are growing. In New Mexico the adult male inmate population nearly doubled between 1993 (3,147 adult male inmates) and 2006 (6,003 adult male inmates). These numbers include only adult males remanded to the New Mexico Department of Corrections and do not include males in local municipal or community jails throughout the state of New Mexico (New Mexico Department of Corrections, 2008).

Summary

For over a century, it was believed that self-mutilation was a female malady. However, recent studies suggest that males self-mutilate at rates similar to females. Self-mutilating behavior among adult males has been documented as a serious behavior that can be severely disfiguring and debilitating, and can even result in death if not treated. Self-mutilation among adult males in a correctional setting is increasingly common, yet our understanding of this phenomenon is limited. Research on the topic of adult males who

engage in self-mutilation in a correctional setting has been scarce, and significant gaps in the literature exist with respect to prevention, assessment, and treatment. Correctional facilities struggle with the cost and staff allocation issues when responding to an incident of self-mutilation in an adult male correctional population. The economic burden to correctional facilities, while not documented, is likely to be high. For example, an event prompts the need for staff to respond to evaluate the severity of the wound and take the necessary action to intervene. Wounds requiring emergent care only add to the institutions' cost. Given that treatment options are largely ineffective, there is an urgent need for research in this area.

Research into self-mutilating behavior among adult males in a correctional setting will contribute to the body of knowledge about self-mutilation in this population with the potential for implications for other populations. Without mindful research, there is little prospect for enhancing prevention, assessment or treatment. In the context of limited evidence and analysis, exploratory mixed methods research is an appropriate approach for identifying potential risk factors and generating hypotheses for future research. Results of this study will provide the empirical basis by which to facilitate future research into prevention, assessment and treatment of this phenomenon in what, at present, remains poorly understood in this underserved and vulnerable population and setting.

Chapter II

Literature Review

Introduction

Self-mutilation is a complex and misunderstood human behavior that has been studied for over 65 years, primarily among women (Favazza, 1996). Many terms have been used to describe and define self-mutilation. Most terms and definitions are derived from observations from clinical case studies from the mental health population (Suyemoto, 1998). The majority of research on self-mutilation has been conducted on females, as self-mutilation was primarily considered to be a female malady. There is a paucity of research, however, surrounding the phenomenon of self-mutilation among adult males (Favazza, 1996; Suyemoto, 1998; Taylor, 2003). What has been found is that males who engage in self-mutilation are more violent and disfiguring to themselves than women (Favazza, 1996; Shea, 1993). Research involving men who are incarcerated identifies this population as the group at highest risk for self-mutilation among all subpopulations (Favazza, 1996; Shea, 1993). Research into self-mutilation and adult males is lacking, leaving gaps in understanding this phenomenon and hampering psychotherapeutic assessment and treatment strategies. This chapter will examine the varied theoretical and operational definitions of self-mutilation. The confusion between the concepts of suicide & self-mutilation will also be reviewed. Cognitive behavioral theory will serve as the lens by which to explore the phenomenon of self-mutilation, and lastly, a description will be provided about what is known about self-mutilation among adult males who are incarcerated. All relevant research literature on the phenomena of self-mutilation was obtained through databases in PubMed, Medline,

PsychoINFO, Academic Search Premier, CINAHL, and Sociological Abstracts. The search years for this review were all publications from July 1967 through February 2011.

Significance of the Problem

Self-mutilation is a health problem that is observed in 4% of the general population and 21% of adult psychiatric impatient populations. (Favazza, 1996; Nock & Prinstein, 2004; Shea, 1993). It has been postulated that 20- 50% of prison inmates self-mutilate (Brooker et al; Favazza, 1996; Haines, Williams, Brain, & Wilson, 1995; Nock & Prinstein, 2004; Osuch, Noll, & Putman, 1999; Shea, 1993). Research in the area of self-mutilation has focused primarily on adolescent girls and women, with a paucity of research among males. Men who self-mutilate engage in more violent forms of the activity, and are less concerned with disfigurement than women (Clark & Whitaker, 1998; Hawton, 2000; Taylor, 2003). Males in correctional settings are a risk group for self-mutilation, and severe events can result in physical damage or unintentional death (Favazza, 1996: Shea, 1993). Self-mutilation is at epidemic proportions across correctional settings nationwide. Forensic researchers estimate that as many as 50% of all prisoners participate in self-mutilation (Favazza, 1996; Holly & Arboleda-Florez, 1988). At the same time, managing and treating incarcerated adult males who self-mutilate is costly (Shea, 1993). The cost of treating self-injurious mutilating injuries in New Mexico's prisons and the cost of re-allocation of staff resources in managing this behavior is unknown. However, there is no doubt that self-mutilating behavior has a cost both at an individual level and the institutional/system level. For example, when an inmate has been found to self-mutilate, usually at least two prison guards are reassigned to evaluate the extent of the injury. In severe cases, the individual is transported for emergent care (and the prison system assumes all of the costs associated with

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hospital care), escalating the cost of the event. Successful mental health assessment and treatment of this population is difficult due to the lack of understanding of the function/purpose this behavior serves in adult males who are incarcerated, and thus strategies to prevent and therapeutically treat the individual mutilated are few.

      Challenges in defining self-mutilation. Self-mutilation is a term commonly found in the literature, but not universally endorsed by researchers (Suyemoto, 1998). Self-mutilation has been described as: deliberate self-harm (Klonsky, Oltmanns, & Turkheimer, 2005; Taylor, 2003); self- injury (Osuch et al., 1999); self-injurious behavior and deliberate self- harm (Gratz & Chapman, 2007; Gratz, Dukes, Conrad, & Roemer, 2002; Webb, 2002). These terms have slight differences in meaning as described in a systematic review by Webb (2002). In this review, the term *deliberate self-harm* included suicide attempts as part of its definition. The lack of a universal definition (or term) only adds confusion in the literature and complicates generalization in research (Favazza, 1996, 1998; Suyemoto, 1998). Self-mutilation has been researched for the past 65 years, with little progress in understanding the psychological functions of self-mutilation. This is likely due in part to the lack of consensus on a universally accepted term and definition.

      Terms used in the literature (Table 1) to describe self-mutilation include: self-harm, self-injurious behavior, self-cutting, deliberate self-harm, auto-aggression, parasuicide, self-wounding, symbolic wounding, and delicate self-cutting (Clark & Whittaker, 1998; Pattison & Kahan, 1983; Suyemoto, 1998; van der Kolk, Perry, & Herman, 1991). Many of these terms were used to describe self-mutilating behaviors of women. For example, the term *self-cutting* was used in the early 1960's to describe wrist cutting among women without suicidal intent (Graff & Mallin, 1967).

Table 1. *Key Terms & Definitions.*

Term	Definition	References
Self-harm	behavior not beneficial to the person (such as suicidal behavior, self-mutilation, overeating, smoking, and substance abuse)	Croyle, & Waltz, 2007 ; Favazza, 1996 ; Jeglic, et al.., 2005 ; Mina, & Gallup, 1998;Taylor, 2003
Self-injurious behavior	intentional and direct injury to one's body tissue without suicidal intent (seen with mental retardation, and psychotic individuals)	Herpertz, 1995; Muehlenkamp, 2003
Self-cutting	wrist cutting among women (without suicidal intent)	Graff & Mallin, 1967
Deliberate self-harm	deliberate, direct destruction or alteration of body tissue (without conscious suicidal intent, but resulting in injury severe enough for tissue damage to occur)	Gratz, 2001; Gratz et al., 2002; Gratz et al., 2007; Webb, 2002
Auto-aggression	Self-mutilation or destruction of bodily tissue without the intent to commit suicide seen in individuals that in spite of medical treatment favorable results cannot be seen as psychosomatic	Favazza, 1996; Winter-Klemm, B., 2007
Parasuicide	Sometimes called deliberate self-harm the act of mimicking suicide, (but does not result in the loss of life)	Hawton, Fagg, Platt, & Hawkins, 1993; Gunnell, Brooks, & Peters, 1996; Welch, 2001
Self-wounding	"cutting" in order to release tension	Huband, & Tantam, 2004; Tantam & Whitaker, 1992

Table 1 Continued

Term	Definition	Reference
Symbolic wounding	cutting behaviors that are associated with a life event, (no suicidal intent)	Smith, Cox, & Saradjan, 1999; Kehrberg, (1997)
Delicate self-cutting	superficial wrist cutting (not requiring medical intervention, no suicidal intent)	Brickman, 2004; Pao, 1969

A self-cutter was once described "an attractive, intelligent, unmarried woman, who was either promiscuous or overtly afraid of sex, easily addicted and unable to relate to others" (Graff & Mallin, 1967, p. 36). The term *self-harm* is used to describe a wide range of behaviors, e.g. suicidal behavior, self-mutilation, overeating, smoking, to substance abuse (Favazza, 1996; Mina, & Gallup, 1998; Taylor, 2003). The lack of a universal term impedes understanding of the phenomenon of self-mutilating and research into improving assessment, treatment and further research into the area of self-mutilation. For the purpose of this investigation, self-mutilation was defined by the investigator as *the deliberate destruction or alteration of body tissue without conscious suicidal intent.* Select key terms presented in Table 1 will be discussed in more detail in the following section.

The conceptual confusion with suicide with self-mutilation. The concepts of self-mutilation and suicide can be confused; however, suicide is not necessarily the extreme form of self-mutilation. Menninger (1938) stated that self-mutilation was a form of self-healing, and an attempt to avoid total destruction of self. Although research exploring differences between self-injurious behavior and suicide is limited, Favazza (1996) argued that those who engage in self-mutilation make a cognitive distinction between the two actions. Specifically,

those who participate in self-mutilation do not see death as a consequence of their self-mutilation. In a study conducted by Muehlenkamp and Gutierrez (2004) on self-injurious behavior and suicide in adolescents, self-injurers (N= 390, male and female adolescents) had lower levels of suicidal ideation, depressive symptoms, and more positive attitudes towards life. In a 15-year follow up of adults with borderline personality disorder, a history of suicide attempts was a better predictor of future suicide than self-mutilation (Stone, 1990). In summary, while self-mutilation and suicide are two separate concepts, they are not mutually exclusive. Self-mutilators are at risk of suicide or death (Menninger, 1938; Favazza, 1996). For example, if the self-mutilating behavior no longer serves its function, the self-mutilator can become suicidal. Self-mutilation on the other hand, can also result in an accidental (unintentional) death.

Culturally accepted and pathological self-mutilation. A common definition of self-mutilation is intentional self-injury without the direct intent to commit suicide (Favazza, 1996; Haines, Williams, Brain, & Wilson, 1995). As cases in mental health became more evident, Favazza and Conterio (1989) defined and classified self-mutilation according to type and diagnosis, pattern of behavior, and severity (Figure 3). Favazza and Conterio (1989) classified self-mutilation as either **culturally sanctioned** (accepted by a cultural group) or **pathological** (due to psychological distress) in nature. Culturally sanctioned self-mutilation includes those practices and rituals that reflect symbolism of a society and reflect a culture (Favazza, 1996; McDonald, 2006). Ritualistic self-mutilation is defined as a practice that is repeated over the last several generations and reflects tradition and beliefs of a society (Favazza, 1996). Self-mutilations that are part of cultural practices include tattooing, or body piercing, to accommodate specific jewelry (Favazza, 1996).

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                        ┌─────────────────────┐
                        │   Self-Mutilation   │
                        └─────────────────────┘
                         ╱                    ╲
        ┌──────────────────────┐        ┌──────────────────────┐
        │ Culturally Accepted  │        │     Pathological     │
        │ (Rituals and Practices)│      │ (Psychological Distress)│
        └──────────────────────┘        └──────────────────────┘
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        ┌───────────────┐  ┌───────────────┐  ┌───────────────┐
        │     Major     │  │  Stereotypic  │  │   Moderate/   │
        │   (severe     │  │ (rhythmic,    │  │  Superficial  │
        │ due to psychosis or│ repetitive   │  │ (mild to moderate│
        │ acute intoxication)│ patterns associated│ tissue damage,│
        │               │  │ with mental retardation)│ epitomized by cutting│
        └───────────────┘  └───────────────┘  └───────────────┘
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    ┌───────────────┐   ┌───────────────┐   ┌───────────────┐
    │   Compulsive  │   │    Episodic   │   │   Repetitive  │
    │ (occuring several│  │(occurs episodically)│ (an addiction to self-│
    │   times a day, │   │               │   │   mutilation) │
    │   may be mild) │   │               │   │               │
    └───────────────┘   └───────────────┘   └───────────────┘
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Figure 3. **Categories and Subcategories of Self-Mutilation.**

      Pathological self-mutilation due to psychological stress or mental illness was

classified by Favazza (1996) into three categories based on the degree of tissue damage, rate

and pattern of behaviors. The three categories are *major self-mutilation*, *stereotypic*

mutilation and *moderate/superficial mutilation* (Favazza, 1996). Major self-mutilation

involves acts that produce significant tissue damage and are not symptoms of any specific

disorder such as schizophrenia (Favazza, 1996). These acts have been reported in individuals

with acute psychotic states, mania, depression, and acute intoxication (Favazza, 1996) and

can result in limb loss or death. Stereotypic self-mutilations are acts that are repetitive with

no symbolic meaning or function. These acts are driven primarily by biological factors such

as autism, mental retardation, or other neurological disorders (Favazza, 1996).

Moderate/superficial self-mutilation is the most common behavior described, and is

epitomized by skin cutting or burning (Favazza, 1996). This category is typified by the lack

of cognitive deficit, neurological disorder or acute mental illness. Moderate/superficial self-

mutilation is further classified into three types according to patterns of behaviors:

compulsive, episodic, and repetitive. Moderate/superficial self-mutilation has been

documented in individuals with eating disorders, depression, personality disorders

(borderline personality disorders (DSM IV- TR code 301.8), obsessive compulsive disorders

(DSM IV- TR code 300.3) and antisocial personality disorders (DSM IV- TR code 301.7)

(Favazza, 1996). Moderate/superficial self-mutilation was the focus of this study because it

was most relevant to incarcerated adult males who self-mutilate.

Compulsive moderate/superficial self-mutilation is obsessive, ritualistic and may

involve hair pulling, pricking, burning, pinching, skin scratching or nail biting (Favazza,

1996). This type of self-mutilation often occurs several times a day, with usually mild

symptoms.

Moderate/superficial self-mutilation behaviors that are episodic arise from distressing

thoughts or emotions (Favazza, 1996). Episodic self-mutilation can become repetitive if the

person adopts an identity as a "cutter" (Favazza, 1996). The manifestations of episodic

subtype most frequently include skin cutting and burning. This behavior has been associated

with borderline, histrionic, and/or antisocial personality disorders, posttraumatic stress

disorders, dissociative disorders, and eating disorders (Favazza, 1996).

"Repetitive moderate/ superficial self-mutilation involves recurrent failure to resist

the impulse to harm one's body" (Favazza, 1996, p.253). These behaviors can include

cutting, head banging, insertion of foreign objects into the urethra, vagina or rectum, but

characteristically occur more than once (Favazza, 1996). Favazza's and Conterio's (1989)

definition involves culture and categories according to degree of tissue damage, rate and

pattern of behaviors; however, their categories have not been subjected to systematic inquiry.

Cognitive Behavioral Model

The lens used as the framework to explore and understand the phenomenon of self-

mutilation is based on Beck's Cognitive Behavioral Model (CBM). This framework for

describing self-mutilation is depicted in the Cognitive Behavioral Model of Self-Mutilation

(CBMSM) developed by this investigator. The CBMSM provides an explanation and a

generalization about the world around us. Cognitive theory was developed by Beck (1960),

and its core beliefs were that an individual's emotional reactions and behavior are strongly

influenced by his/her cognitions, thoughts, beliefs, interpretations about self and meaning

s/he gives to events in daily life (Beck, 1999). Beck (1999) noticed during counseling

sessions that his patients had an **internal dialogue** that affected how emotion and behavior

were actually manifested. An internal dialogue includes the things that we say to ourselves

about ourselves, others and the future, and also incorporates automatic negative thoughts,

irrational thought patterns and cognitive distortions. This theory stimulated a cognitive

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revolution, after which modern cognitive behavioral theories were further developed by

Aaron Beck and Albert Ellis (Feldman, 2007).

The basic tenet of Beck's CBM is that abnormal behavior is caused by abnormal

thinking. People interact with the world through mental perception and representation. If

these representations are negative, they will also negatively impact the person's emotion and

behavior (Beck, 1999). Cognition is complex and consists of several layers of attention,

thought and contemplation. Automatic thoughts are fundamental to cognitive theory and

Beck's CBM (Beck, 1999). Negative automatic thoughts were described by Beck (1999) as a

triad of cognition that has three foci: 1) self, 2) the world and, 3) the future. These types of

thoughts have a direct influence over emotions. Beck (1999) suggested that thinking patterns

are developed in childhood, and negative thought patterns may be triggered automatically in

adulthood. This suggests that an individual forms many self-concepts (attitudes, value of

self, and generalizations about self) based on external events or the psychosocial

environment.

Irrational thought patterns and effects on emotions and behavior. Irrational or

unsound thought patterns can alter mood and behavior. An example of this is: "I am a

failure, I am useless ". These irrational thoughts can lead to depression and then behavior

responses such as self-mutilation, where feelings of failure may arise that reinforce beliefs of

uselessness. According to Beck (1975), irrational thought patterns are based on prevailing

cognitive distortions. Below are some common types of distortion:

- All or nothing thinking – the tendency to think in absolute terms, like "always",
  "never" and "every".

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- Overgeneralization – taking isolated situations and applying them in a wide generalized way to all situations.

- Mental filter – focusing exclusively on one, usually negative aspect and ignoring the larger picture or positive alternatives.

- Selective abstraction – continually ignoring positive aspects for arbitrary reasons.

- Jumping to conclusions - assuming something negative where there is actually no evidence to support it. Two specific subtypes are also identified:

    -Mind reading - assuming the intentions of others

    -Fortune telling – guessing that things will turn out badly

- Magnification – usually magnifying the negatives and minimizing the positives

- Emotional reasoning – making decisions on how one feels with no objective consideration of reality.

- *Should* statements – when one concentrates on what s/he feels s/he should do or ought to be, rather than on the balanced reality of the situation.

- Labeling – related to overgeneralization, where people assign labels to someone rather than specific behavior.

- Personalization and blame – assuming self or others are the cause of things, even when that may not have been the case.

Table 2 illustrates how irrational thinking, based on cognitive distortions, affect one's emotions/mood and influence subsequent negative behavior.

Table 2. *Example of irrational thought leading to negative moods and self-mutilation behavior.*

Critical Event/ Situation (adult male in prison)	Internal Dialogue	Cognitive Distortion	Emotions	Behavior
"I called my wife at home and she did not answer the phone"	"I can't trust anyone, she is probably with another man"	*Jumping to conclusions -* assuming something negative where there is actually no evidence to support it.	Anger Frustration Hurt	Inflicts cuts to forearms

As seen in this example, it may not require an event or situation that is extremely volatile or dangerous to trigger the internal dialogue. Once the dialogue is triggered, however, it may lead to the emotions and behaviors laid out in the cognitive distortion and patterns established in the past. The eventual key for intervention would be to correct the cognitive distortion that results in the pattern of self-mutilation.

A model of self-mutilation based on cognitive behavioral theory. The theoretical lens of Beck's CBM is important because it provides the basic framework in exploring the phenomenon of self-mutilation among adult males in a correctional setting. The CBMSM was adapted by the investigator from Beck's CBM for understanding and exploring self-mutilation, and for establishing patterns of thinking (Figure 2.).

In the CBMSM, patterns of thought are a product of adverse life events or external influences that create negative patterns of irrational core beliefs (internal influences, core beliefs about self and others) that are triggered during critical events. For example, in this model, the triggering of negative internal influences produce an internal dialogue that is based on distorted thinking. This distorted thinking leads to negative emotions that give rise

to maladaptive behavior, such as self-mutilation. This model uses Beck's framework to explain how external influences, internal influence and internal dialogue can lead to self-mutilating behavior. In the CBMSM, internal dialogue is important, but does not solely explain the function or risk factors associated with self-mutilating behavior. Self-mutilation is a complex human phenomenon that can be explored through the theoretical framework of a CBM, as described below.

External influences. The reports of external events and self-mutilation have been primarily the experiences of women and/or derived from similar abuse histories that have been investigated. A study by Gratz et al., (2002) of 133 undergraduate psychology students (67% women) examined the relationship between self-harm and risk factors. Self-harm was measured using the deliberate self-harm inventory (Gratz et al., 2002) and risk factors were determined by such measures as: the abuse perpetration scale (a measure of child abuse), the disruption in attachment survey, parental bonding index, parental attachment questionnaire, and the Marlowe-Crowne social desirability scale. Controlling for gender, they found that male predictive factors for self-harm included insecure attachment (β = .24) and childhood separation (β =.36). A later study by Gratz and Chapman (2007) examined the pathogeneses of self-harm among men. The study examined experimental (aspects of childhood mistreatment) and individual risk factors (emotional dysregulation, inability to express emotions, and intensity/reactivity of affect) associated with the development and maintenance of self-harm among undergraduate males. The instruments used in the study evaluated the degree and frequency of self-harm, history of abuse, parental history and emotional scales. The Deliberate Self-Harm Inventory is a 17-item, behaviorally-based, self-report questionnaire that assesses lifetime history of deliberate self-harm such as frequency,

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duration, and type of self-harming behavior. The Abuse-Perpetration Inventory is a self-report measure used to classify individuals as having been sexually or physically abused during childhood. The Parental Bonding Instrument is a 25-item, self-report measure of two aspects of maternal and paternal behavior during childhood: affection, and control. Emotion was evaluated with the Emotional Expressivity Scale. This Scale is a 17-item questionnaire that assessed general emotional expressivity. The Affect Intensity Measure is a 40-item measure of characteristics [traits], intensity and reactivity of emotional responses, independent from the frequency, and hedonic level of emotional responses. The Difficulties in Emotion Regulation Scale, is a 36-item measure that assesses individuals with typical levels of emotion dysregulation.

In this study of 97 men from an undergraduate psychology class at a large urban university, Gratz and Chapman (2007) found that 44% of the participants had a history of deliberate self-harm (DSH), with 14% reporting more than 10 incidences of DSH in the past, and 5% reporting more than 50 incidents in the past. Men with a history of DSH reported significantly higher rates of physical abuse in their lives (60%), as well as significantly higher levels of emotional neglect and emotional dysregulation, compared to the general population. Individual risk factors for the development of self-mutilation were identified as emotional neglect and childhood physical abuse. The individual motivational factor identified maintenance of self-mutilation as attributable to emotional dysregulation and affect intensity/reactivity. Childhood maltreatment was associated with the frequency of self-mutilation among men who engage in self-mutilation, but not with sustaining the behavior.

A cognitive behavioral treatment or therapy (CBT) framework has also been used to understand external influences such as childhood trauma, substance abuse and relapse

behavior, and post-traumatic stress (Cohen, Mannarino, Berliner, & Deblinger, 2000; Futterman, Lorente, & Silverman, 2005). Webb (2002) studied external influences such as parental bonding, family dysfunction, and dissociation among adolescents. He found that adolescents who reported significant problems overall had higher/more serious relationship problems with family, friends and significant others. The lack of family communication, family adaptation, and family functioning were strongly associated with self-mutilating behavior.

Internal influences. Internal influences are fixed core beliefs or feelings about self, others or the future. Self-mutilation is associated with a range of negative interpersonal and intrapersonal consequences such as shame, guilt, regret, social isolation, and negative self-worth (Favazza, 1996). Croyle and Waltz (2007) examined characteristics associated with self-injurious behavior in a sample of 290 psychology students (48% male) and found that moderate self-injurious behavior was associated with somatic symptoms, impulsivity, obsessive-compulsive behavior, eating disorders, higher levels of shame, and a history of emotional abuse. Shea (1993) studied adult males, of whom 30 had and 30 had not engaged in self-mutilating behavior. Self-mutilators had higher levels of somatic concerns, subjective distress, alienation and immature defense mechanisms ($r = .64$, $p \leq 0.05$) than the control group. The self-mutilating group also reported greater levels of symptoms of anxiety, depression, and feelings of persecution.

These internal influences thus play an important role in the model, as they are usually negative and consist of fixed core beliefs and emotions about self, others and the future that arise during critical life events. The internal influences are also constantly changing, depending on their relation with the other parts of the model. In self-mutilation among

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incarcerated men, it is conceivable that anxiety could fluctuate depending on the external influences (e.g., the environment and others in it) and result in different cognitive thoughts that influence and maintain self-mutilating behaviors.

Cognitive distortions. In the CBMSM, cognitive distortions influence emotions that lead to maladaptive behavior such as self-mutilation. This Model has not been tested and will not be tested in this study, but will used as a framework by which to explore the phenomenon of self-mutilation among incarcerated adult males. It is important to note that frequently, an individual is not aware of cognitive distortions; the individual may have little insight into emotions that arise, especially if the emotions are sudden or overwhelming. As with Beck's Cognitive Behavioral Model, emotions are central to cognition in this model. The example in Table 2 illustrates how a simple event can trigger the distorted cognitions, specific emotions and behaviors that lead to self-mutilation.

Emotions. Some emotions (e.g., anger) may be associated with self-mutilation more commonly than others (e.g., happiness), but specific associations between emotion and behavior vary with the context (e.g., external influences) as well as internal influences, such as cognitive distortions. The key element in self-mutilation is that the emotions arise out of the distorted cognitive thought, and distorted thinking must be present to motivate the behavior. As noted above, the individual may have little insight into the emotions that arise, especially if the emotions are sudden or overwhelming. However as with the cognitive phase, it may not be recognizable to the individual due to the automatic or instantaneous nature of the emotions that are manifested. As with Beck's CBM, emotions are central to behaviors and cognition in the CBMSM.

Behavior. The behavioral element of the model is where the model is the most specific. For the purpose of this study, the main behavior of interest is self-mutilation. Self-mutilation examined through the Cognitive Behavioral Model and the modifications made in this model have the potential to increase our understanding of these behaviors in incarcerated men.

Adult Males and Self-Mutilation

Prevalence. The precise prevalence of self-mutilation among females and males is unknown. Studies conducted in mental health clinical environments (outpatient and inpatient psychiatric settings) have reported the prevalence of self-mutilation to be as high as 44% (Briere & Gil, 1998; Favazza, 1996). The prevalence of self-mutilation in a community sample is estimated to range from 4% to 14% (Favazza, 1996; Nock & Prinstein, 2005). The prevalence among males, however is not clear, since the majority of the research conducted is on females, with the assumption (not evidence-based) that men self-mutilate at the same rate (Briere & Gil, 1998; Favazza, 1996; Gratz et al., 2007; Nock & Prinstein, 2004). Establishing accurate data on the number of men who self-mutilate at present appears implausible due to inconsistent or contradictory operational definitions, procedures for data gathering, underreporting, misdiagnosis, gender bias, and lack of research exploring self-mutilation in males (Favazza, 1996; Gratz, 2007; Suyemoto, 1998; Taylor, 2003). Additionally, much of the research in this area has been with college students. These data are limited in their applicability to those with less education, lower economic status, and age groups not typically attending college.

The prevalence of self-mutilation among adult males who are incarcerated has been estimated to be in the range of 20-30% (Brooker et al; Favazza, 1996; Haines, Williams,

Brain, & Wilson, 1995; Nock & Prinstein, 2004; Osuch, Noll, & Putman, 1999; Shea, 1993).

However, an exact prevalence rate in a correctional setting is difficult to ascertain due to the

methodological issues detailed above. Additionally, most acts of self-mutilation are not

reported (Favazza, 1996; Shea, 1993). It is not uncommon in penal systems for self-

mutilation to go unreported or be recorded only within a broad self-harm category that

includes suicide and suicide attempts (Favazza, 1996). Nevertheless, Favazza (1996) and

Shea (1993) assert that self-mutilation occurs frequently in a correctional system. The

prevalence of self-mutilation among adult male inmates in New Mexico prisons is not

known, yet it remains in need of study for both the health and welfare of the inmates and the

economic health of the penal system.

     Gender bias. Research in the area of self-mutilation and adult males is notably

lacking. Self-mutilation among males has been reported since the early 1960's; however,

self-mutilation in the majority of research, albeit small, has focused primarily on women

(Favazza, 1996; Taylor, 2002). The prevalence of self-mutilation in males has been reported

as the same among males and females, but limited to academic and military settings (Croyle

& Waltz, 2007; Gratz et al., 2002; Klonsky et al., 2003).

     Assessment and diagnosis of adult males who self-mutilate. Assessment,

determination of etiology, function/purpose, and diagnostic strategies for adult males who

self-mutilate (in or out of prison) require further research. It is difficult for correctional staff

to assess the intent of the self-mutilation or treat it due to the lack of understanding and

insight about self-mutilation in this population (Jeglic et al., 2005). For example, it is not

uncommon for the correctional staff to either ignore such activity or attribute it to attention

seeking, self-mutilation behavior. Only in severe cases is mutilation noteworthy.

Researchers have recommended that a forensic treatment team ask questions about the

environment and internal antecedents (moods, thoughts), as well as the consequences of self-

mutilation, to determine the degree to which the self-mutilation serves its supposed purpose

(Jeglic et al., 2005). In 2004, the National Institute for Clinical Collaboration Centre for

Mental Health established guidelines for the management of self-harm (National Institute for

Clinical Excellence, 2004). The guidelines were based on literature reviews, input from

healthcare practitioners, and expert consultation, focusing on the physical and psychosocial

management of self-mutilation. The recommendations are not controversial, and are

currently part of good practice/standards of care. For example, priorities are to treat the

patient with respect, care and privacy, provide training for staff, and offer a preliminary

psychosocial assessment to all patients. These are the only published guidelines that address

self-mutilation. Self-mutilation is a widespread problem, yet there is very little empirical

evidence showing that the guideline-suggested treatments can reduce this maladaptive

behavior. Furthermore, the guidelines have not been applied or studied in a correctional

population, which hold unique contexts and challenges.

Psychological correlates and self-mutilation. Self-mutilating behavior has been

acknowledged to occur in several psychiatric disorders, including borderline personality

disorder (DSM IV-TR code 301.8), obsessive-compulsive disorder (DSM IV-TR code

300.3), anorexia nervosa, bulimia, depression, schizophrenia, and anxiety-disordered women

(Favazza, 1996; Suyemoto, 1998). Some mental health professionals have called for self-

mutilation to have its own diagnosis in the Diagnostic and Statistical Manual of Mental

Disorders (Zila & Kiselica, 2001). However, this has yet to occur. Possibly because it is not

clear that any single psychiatric disorder predominates or is most prevalent among persons who self-mutilate.

Coping strategies and self-mutilation. It has been suggested that self-mutilation is a means of coping with problem situations (Walsh & Rosen, 1988) and may represent a maladaptive coping strategy that buffers against negative effects of external and internal life stress (Lin & Ensel, 1989). In a study by Haines and Williams (1997), 50 male prisoners with a history of self-mutilation from 19 correctional facilities, and a second prisoner control group without a history of self-mutilation, were evaluated for coping skills. No clear differences in coping skills were found. There was also no evidence that those prisoners who self-mutilate rely on focused coping to the exclusion of unfocused coping (Haines & Williams, 1997). The only difference noted between groups was that the self-mutilating group perceived themselves to have less control over interpersonal problem-solving situations than did the other group. The study concluded that there was no evidence to suggest major deficits in coping or problem solving among self-mutilators. Thus, research in the area of self-mutilation, coping and problem solving remains limited and inconclusive.

Risk Factors in Self-Mutilation

There are two key risk factors that may lead to the development of self-mutilation. These risk factors consist of family dysfunction and child mistreatment. While these two key risk factors are discussed in the literature, they are taken from the experiences of adolescent or adult females. An analysis of risk factors for adult males who are incarcerated and may self-mutilate, is notably lacking.

Family dysfunction. Some reports suggest that moderate to severe self-mutilation is characterized by a history of childhood abuse, childhood family dysfunction, and/or loss of a

parent through divorce or death (Favazza, 1996; Favazza & Conterio, 1989). Gratz et al., (2002) in a study of university students, found that those who reported moderate to severe self-mutilation had a greater incidence of insecure attachment during childhood, childhood separation issues, emotional neglect and sexual abuse. While researchers have hypothesized that family dysfunction may be a risk for self-mutilation, this hypothesis remains speculative.

Childhood maltreatment. Childhood maltreatment and self-mutilation have been studied primarily in adolescents or adult females. The literature suggests that childhood experiences such as neglect, separation and insecure attachment lead to the development of self-harm (Baral, Kora, Yukel, & Sezgin, 1998). The term *self-harm* includes suicidal behavior, thus making it difficult to link child maltreatment to self-mutilation alone. While there is no direct link to child abuse, there is research to suggest that traumatic events, not just those encountered in child abuse, can lead to self-mutilating behavior (Gratz et al., 2007; van der Kolk, Perry & Herman, 1991; Suyemoto, 1998). In a study of 97 male students from a psychology class, 44% reported being self-mutilators. Additionally, childhood physical abuse and emotional dysregulation distinguished self-mutilators from classmates without a history of self-mutilation (Gratz & Chapman 2007). These studies were the first to report environmental and individual risk factors among adult males who self-mutilate.

Research suggests that childhood experiences take place in the context of the family and these experiences are strongly associated with self-harm (Gratz et al., 2002). The role of insecure attachment, such as childhood neglect or childhood separation, has been hypothesized to influence traumatic experiences and the development of self-harm (Gratz et al., 2002; Van der Kolk et al., 1970). These hypotheses are supported by a limited amount of evidence.

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Previous family and personal history of self-mutilation is an area that has not been explored among adult males who are incarcerated. An understanding of risk factors for adult males is lacking, and research to identify them is essential in developing assessment and treatment strategies.

Function of self-mutilation. As with other elements of self-mutilation, its function has been described and examined primarily from the adolescent and adult female perspectives. The variables that have been examined in the literature include automatic negative reinforcement, automatic positive reinforcement, social negative reinforcement, social positive, affect regulation, disassociation, and tension reduction. Research as to the function of mutilation in adults is scarce, thus studies on adolescents were examined to identify variables influencing self-mutilation. This next section will briefly review those studies.

Reinforcement as a function of self-mutilation. Nock and Prinstein (2004) examined contextual features and behavioral functions of self-mutilation among adolescents. Their study built upon their earlier work of four theoretical functions of self-mutilation. The theoretical functions consisted of four types: 1.) automatic negative reinforcement, refers to the use of self-mutilation to reduce negative affective or mood states i.e. to stop feeling bad, 2) automatic positive reinforcement, refers to the use of self-mutilation to create a desirable physiological state i.e. to feel something even pain, 3) social negative reinforcement, refers to the use of self-mutilation to escape from interpersonal demands i.e. to avoid doing something you do not want to do, and 4) social positive reinforcement refers to using self-mutilation to gain personal attention from others. The hypothesis of this study was that hopelessness and previous suicide attempts are uniquely associated with the function of automatic, negative

reinforcement with self-mutilation, the symptoms of major depression and presences of posttraumatic stress disorder. Furthermore, the functions of automatic, positive reinforcement and social reinforcement in relation to self-mutilation are known to be uniquely associated with social concerns such as loneliness and socially prescribed perfectionism (Nock & Prinstein, 2005).

Nock and Prinstein (2005) studied 89 adolescents 12 to17 years of age, recruited from a psychiatric inpatient unit. Associations among contextual features such as time spent contemplating self-mutilation before each event, use of alcohol and drugs, level of pain, and friends' self-mutilating behavior incidents were examined. Descriptive analysis found that contemplating self-mutilation occurred only a few minutes before the incident, making this behavior impulsive in nature. Most of the adolescents reported experiencing little to no pain during each incident. Eighty-two per cent reported committing at least one incident of self-mutilation in the presence of a friend. A small negative correlation with age was the only demographic variable found to be related to the *Functional Assessment of Self-Mutilation Scale.* Scores on social negative reinforcement (r= -22, p<.05) and social positive reinforcement (r= -26, p<.05) were associated with younger age. Depressive symptoms were associated (r = .40, p< .001) with the social positive reinforcement functions (Nock & Prinstein, 2005).

Affect regulation. Affect regulation models have been used to better understand the function of self-mutilation. Self-mutilation in the context of affect regulation model can be used as a means to express emotion, or conflict both with self and others, and to achieve a sense of control over emotions that threaten to overwhelm the individual (Suyemoto, 1998). Self-mutilation can be viewed as physical proof or validation of emotional injury, or to create

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a sense of control over an overwhelming affect (Suyemoto, 1998). Self-mutilation may also

be used to restore a sense of emotional equilibrium (Jeglic et al., 2005).

Gratz and Chapman (2007) studied affect regulations, child maltreatment, and

dissociation among men without a history of self-mutilations, and men with a history of self-

mutilation. They found that adverse life events are influential in deliberate self-harm and

often lead to difficulties with emotional stability. Males who reported a history of self-

mutilation, also reported a history of physical abuse and emotional neglect. Physical abuse

and emotional dysregulation (difficulty expressing emotions) were found to be associated

with the frequency of self-mutilation.

Dissociation. The model of self-mutilation developed by Suyemoto (1998) is the

only one that addresses dissociation. Dissociation is a mental process that produces a lack of

connection of thoughts, memories, feelings, actions, and a sense of self. Dissociation may

happen, for example, during traumatic events. Dissociation is a symptom of a mental illness

such as posttraumatic stress disorder or generalized anxiety disorder (Suyemoto, 1998).

Dissociation in the context of this model is postulated to serve as a means of coping with

intense emotions. Dissociation and personality disorders have been discussed primarily using

case studies (Favazza, 1996), and empirical research is needed to investigate the precise

function of dissociation in self-mutilation.

Tension reduction. Researchers have hypothesized that self-mutilation relieves the

individual of escalating negative emotions and that the relief maintains/sustains this behavior

(Favazza, & Conterio, 1989). It has been noted that when used as a method of coping, the

self-mutilation typically follows a sequence of events and ultimately provides only temporary

relief because it does not alter the underlying psychopathology or necessarily resolve the

stress-producing event or conflict (Favazza & Conterio, 1989; Simpson, 1976). Much of the information relative to this tension relief model for understanding self-mutilation is based on clinical observations, case studies, and not on a significant number of rigorous, scientific investigations.

Incarcerated Adult Males

Frequency and severity of self-mutilation among incarcerated males. The most common types of self-mutilation among adult males who engage in self-mutilation are lacerations (Shea, 1993). The frequency and severity of self-mutilation among adult males who are incarcerated is unknown due to the lack of reporting, and can only be assumed to be no lower than found in the general population.

Cost of custodial and medical management of incarcerated males of self-mutilation. Self-mutilation among prison inmates presents a problem of considerable magnitude from the standpoint of both custodial and medical management. Management of the self-mutilating inmate is a costly process for correctional institutions that lack resources to train personnel, keep the self-mutilator under continuous surveillance and provide medical care (Shea, 1993). The cost of providing medical, custodial and mental health care for a moderate to severe self-mutilator is not documented. Calculating the actual cost of self-mutilation for correctional institutions is a difficult task since self-mutilation may fall under the category of self-harm that includes acts of suicide. The Centers for Disease Control and Prevention (CDC) estimated the cost of self-inflicted injuries (which is inclusive of suicidal behavior) to be $33 billion annually ($32 billion in productivity losses, $1 billion in medical costs) (CDC, 2002) in the community. The cost of self-mutilation in a correctional setting is unknown.

Special issues of self-mutilation in a correctional setting. Up to 50% of all

reported self-mutilation in prisons is attributed to deliberate manipulation on behalf of the

inmate (Jeglic et al., 2005). Secondary gain, manipulations of the mutilator's environment,

control over others and attention from others are proposed explanations for self-mutilation

among adult males who are incarcerated. However, ignoring the self-mutilating behavior, in

attempts to extinguish the behavior, may result in an increase in the frequency and severity,

as the inmates' needs are not met. Shea (1985) found that when minor self-mutilation failed

to meet the self-mutilator's needs, the inmate frequently escalated the level of severity to get

his needs met. Consequently, despite the prevailing views and practices, self-mutilation in

correctional settings remains a growing problem.

Summary

Much of the research on self-mutilation is anecdotal and taken from clinical case

studies. Many of the theoretical explanations concerning self-mutilation offer potential

insight, but they require testing. Research conducted on self-mutilation has been taken

predominantly from the experiences of females. Research in the area of self-mutilation

involving adult males is limited. Adult males who self-mutilate in a correctional facility are

an unexplored subpopulation that has been identified as the highest risk population in the

literature. The etiology and function/purpose of self-mutilation among adult males in a

correctional setting is also unknown and poorly understood. Clinical case studies suggest

that self-mutilation among adult males is primarily a manipulative act to meet the inmates'

needs. However, other possible contributing motivational factors have not been explored or

analyzed. A cognitive behavioral framework by which to study self-mutilation among adult

males who are incarcerated will provide the lens to better understand and explore this

phenomenon. Understanding self-mutilation among adult males who are incarcerated is important to the nascent body of knowledge for this population, improving assessment and treatment, and producing much-needed positive health outcomes for this population.

Chapter III

Methods

In this chapter the research design, setting, sample, protection of human rights, data collection, instrumentation, data analysis, and measures for ensuring reliability, validity and trustworthiness of the data are described. Understanding the overall purpose and the aims of this study provides a foundation for the section.

Purpose and Specific Aims

The overall aim of the study was to increase awareness and understanding of the phenomenon of self-mutilation by adult males in a correctional setting. This study explored the self-mutilating attributes such as type, motivational factors and predisposing characteristics to identify potential risk factors for self-mutilation among adult males in a correctional setting. It was also intended to enhance the understanding of health care practitioners and mental health providers in correctional facilities who assess and treat adult males engaged in self-mutilating behavior. Specific Aims of the study were to:

3. Identify the relationships among age, motivational factors and the frequency of self-mutilating behavior.

4. Determine which specific motivation factors are associated with the type and severity of self-mutilating behavior.

3. Explore the meaning self-mutilation possesses for adult males in a correctional setting.

4. Explore in greater depth motivational factors that influence self-mutilating behavior among adult males in a correctional setting.

The first two Specific Aims involved primarily quantitative methods and data; the third and fourth Specific Aims involved primarily qualitative methods and data. As an exploratory study, no specific research hypotheses were proposed. Results of the study are expected to provide an empirical basis or foundation informing hypotheses for future studies.

Design, Setting, and Sample

A *mixed method triangulation design* was chosen for this study because it provided more comprehensive evidence for studying a research problem that cannot be answered by one method alone (Creswell & Plano-Clark, 2007; Tashakkori & Teddlie, 2003) (Appendix D). This approach used both quantitative and qualitative methodologies, targeting different but complementary data that can be used to explore, understand, and capture the phenomenon of self-mutilation among adult males who are incarcerated. Since research in the area of self-mutilation among adult males who are incarcerated is scarce, this exploratory study utilized two methodologies to better understand the behavior. A triangulation convergence model was used to compare and merge two data sets (as shown in Figure 4), creating a tentative, holistic picture of the phenomenon of self-mutilation among adult males who are incarcerated. In the triangulation convergence model, both quantitative and qualitative data were collected concurrently during a single phase of the study. In this design both methods had equal importance or weight in addressing the research problem, and both data sets had equal emphasis or weight (Creswell & Plano-Clark, 2007). Data for each method were analyzed separately, and results from the two data sets were then merged to form a complete picture, comparing all results that address the research questions (Creswell & Plano-Clark, 2007).

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┌─────────────┐      ┌─────────────┐      ┌─────────────┐
│    QUAN     │      │    QUAN     │      │    QUAN     │
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│ collection  │      │  analysis   │      │   results   │   │     ┌─────────────┐      ┌──────────────┐
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│    data     │ ───▶ │    data     │ ───▶ │    data     │ ──┘
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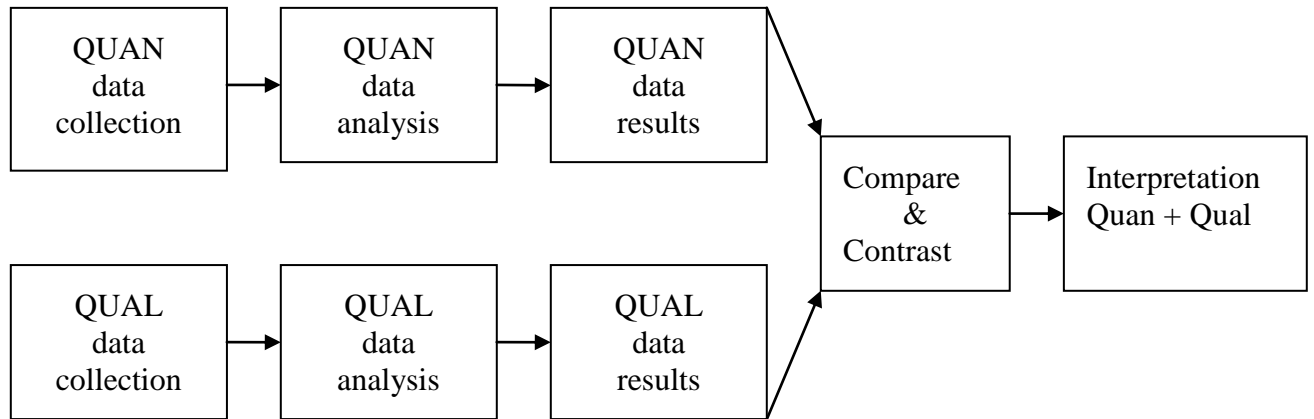
Figure 4. **Triangulation Design: Convergence Model (Creswell, Plano-Clark, 2007, p.**

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The strengths of the triangulation convergence model are that it is

intuitively/conceptually appropriate for the research questions, is an efficient design in which

both types of data collection are obtained within the same time frame, and each data type can

be collected separately and independently using traditional techniques (Creswell & Plano-

Clark, 2007). Creswell & Plano-Clark (2007) identified the challenges of using a

triangulation convergence design as: additional effort in collecting concurrent data,

implementing equal weight and expertise to each methodology, sample size, potentially

contradictory results, and introducing potential bias in data collection.

In addressing the challenge of using concurrent data collection, the investigator

employed and documented a rigorous data collection procedure. The challenges of giving

equal weight, emphasis and expertise to each method have been addressed by targeted

selection of the dissertation committee members for this research--experts in both

quantitative and qualitative research who provided consultation and guidance in this mixed

method study.

The qualitative sample was based on data saturation, the point during collection when conceptual categories of data/information gathered began to be redundant (Patton, 2002). Participants from the quantitative sample were invited to participate in the qualitative sample.

According to Creswell and Plano-Clark (2007), a clear consensus does not exist among researchers on participant selection strategy in a mixed method approach. It is a common practice among mixed method researchers to select the same individuals for the quantitative and qualitative data collection phase, so that data can be easily converged or compared (Creswell & Plano-Clark, 2007). If contradicting results occur, parallel findings are reported and areas for which more research is indicated are identified (Creswell & Plano-Clark, 2007).

The initial phase of the study was quantitative and used three instruments: a demographic questionnaire, the Deliberate Self-Harm Scale (Gratz, 2001), and the Self-Injury Motivational Scale (Osuch, Noll, & Putnam, 1999) (Appendix C). The second phase used a visual ethnographic approach that integrated a photo-elicitation technique during an ethnographic interview. This qualitative approach enhanced the understanding of the participant's reality by triggering memories that provided rich detail and more precise information (van Leeuwen & Jewitt, 2001).

A mixed method design brought insight and understanding that may be missed in a single method approach, and increased the amount of data obtained in an environment with limited access to participants.

Sample. A convenience sample (N=36-40) for this study was drawn from the New Mexico Department of Corrections (NMDC) adult male correctional facilities. The sample for this study consisted of Level I-III male inmates, ages 20- 55, who were identified by the

NMDC mental health department personnel as having a history of moderate or superficial self-mutilation. Level I inmates are housed in a minimum custody facility that houses inmates who are due to parole in one year. These inmates live in a facility that is not surrounded by fences or barbed wire. Inmates live in a farm-like setting and work caring for cattle and growing alfalfa. These inmates have not been charged with a violent crime and have a year or less to finish on their sentence. They are able to visit loved ones/families in a large visiting room. Level II facilities are also called minimum restrict facilities, and they house inmates in an open dorm setting where they live together in one large room. There is fencing and barbed wire surrounding the facility. Inmates sleep in bunk beds with little space for personal items. While movement is controlled/restricted, inmates are able to access the gym during certain hours during the day and are able to work in the community under the supervision of correctional staff. Medium custody inmates (Level III) are in a secure environment that is monitored by cameras, security towers and increased correctional staff. Movement is controlled and inmates are housed in individual cells. Medium security also has a segregation unit where behavior problem inmates and those inmates requiring protective custody are housed. The majority of inmates in New Mexico were classified as Level III custody inmates. Classification of inmates requires a criminal background and record of institutional behavior indicating that the inmate requires placement within the confines of double-fenced security perimeter, with armed towers and armed vehicle patrol. Level III inmates are permitted to function among a general incarcerated population under staff supervision without posing a threat to security or to staff or other inmates (New Mexico Department of Corrections, 2006).

Eligibility for enrollment included:

- State of New Mexico adult male inmate aged 18-55 years;

- History of at least one self-mutilating episode prior to recruitment and willing to speak with the investigator according to prison mental health services personnel;

- Able to read or understand English.

Inmates with a history of organic brain damage, serious mental illness, neurological disease, or developmental delay that could compromise their capacity to provide informed consent were excluded. Typically, this determination was made by prison mental health personnel without identifying the inmate to the investigator. However, based on the investigator's clinical judgment, any potential participant identified and referred to the investigator was also excluded on this basis. Signed informed consent was obtained from all who agreed to participate (Appendix B).

Sample size. In the quantitative phase of the mixed method design, a sample size of 42 was chosen for this exploratory study. All consenting participants participated in the initial, quantitative phase of the data collection. Participants were asked during the consent process if they would be willing also to participate in the second phase of data collection involving visual ethnographic methods. It was estimated that approximately 10 to 12 participants of the total sample would be sufficient to reach saturation of categories for purposes of qualitative analysis. However, all participants wanted to participate in the qualitative phase and were included in this phase of the study as well.

Protocol

Recruitment. Participants were identified and recruited for the study with the assistance of the mental health department in each correctional facility. Mental health

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departments are typically staffed by counselors, social workers, psychologists, and psychiatrists. Mental health departments in the New Mexico Department of Corrections (NMDC) are required to interview and complete a mental health assessment on each inmate admitted or transferred to their facility. Inmates with a history of mental illness, history of violence or self-mutilation are identified at intake. If an adult male at NMDC engages in self-mutilation while incarcerated, the mental health department must evaluate this person and record the incident in a mental health crisis log that is maintained at each facility.

Approval for the study was secured with the New Mexico Department of Corrections authorities prior to the study, to specify the scope of the study and the facility's commitment to cooperate (Appendix E). Three correctional facilities agreed to take part in the study, providing a sufficient pool of potentially eligible inmates. Prior to the study, the investigator met with the mental health directors in each of the three potential facilities to explain the study and seek assistance in the identification of potential participants. Each mental health director was asked to identify potential participants and to ask those individuals if they would be willing to participate in the study. This procedure was necessary to avoid violating inmate confidentiality by the mental health department. The adult males who met criteria for the study met with the mental health director to discuss possible participation in the study. In order to participate in the study each participant signed a release of information, allowing the mental health department to release his name for the study to the primary investigator. The investigator maintained communication with the director of each participating correctional facility to obtain names of those adult males who wished to take part in the study. Once the names of the participants were obtained, the director was informed of the date and time that the investigator would arrive at the facility to meet with the research participant. Information

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concerning when the investigator would arrive at the facility to conduct the study was conveyed to the inmate by the mental health director.

When the investigator met with the inmate, she described the study, made judgments about eligibility and competence to consent, and determined if a potentially eligible inmate was willing to participate. The consent allowed the participant to choose whether to participate in both the quantitative and qualitative data collection or in only the former. The researcher discussed the certificate of confidentiality (obtained from the National Institutes of Health {NIH} as a condition for study approval by the university) with each participant. To the extent consistent with prison schedules and routines, the data collection was completed as soon as possible once the informed consent was signed (Appendix B).

Data Collection

Consistent with the study design model, quantitative and qualitative data collection were conducted separately, but within the same timeframe. In the quantitative phase, two questionnaires, the Deliberate Self-Harm Inventory (Gratz, 2001) and the Self-Injury Motivation Scale (Osuch, et al, 1999), were administered along with the demographic data sheet (Sample of Demographic, Appendix C). Permission was obtained from Elizabeth A Osuch, M.D., FRCP to use the Self- Injury Motivational Scale II (Appendix I). Permission was also obtained through email correspondence from Kim L. Gratz, PhD to use the Deliberate Self- Harm Inventory (Appendix I). The qualitative data collection phase applied a visual ethnographic method that used photo-elicitation during an interview. Visual ethnography uses images and words to record an object, a piece of art, a human feature, etc., and explores cultural experiences that enhance the understanding of cultural practices, beliefs and values (Pink, 2001).

Quantitative data collection procedures. Prior to data collection all inmates received and signed a consent form that gave information about the study, risks, benefits, and informed the participant that he may withdraw from the study at any time (Appendix B) without penalty. Prior to arrival at a NMDC adult male facility, the mental health director was notified of the date, time, and list of participants who would be called out to participate in the study.   Arrangements were also made with the mental health director to obtain a confidential room within the mental health department where the investigator could consent the participant and administer the measures being used in the quantitative phase of the study.

All instruments were administered by the investigator. Each instrument was coded with an anonymous study identification number. The questionnaire packet consisted of the researcher-developed demographic questionnaire, the DSHI, and the SIMS. The demographic data sheet and the DSHI were administered by the investigator. The SIMS is a self-report questionnaire that each participant completed in the presence of the investigator. For consistency regarding literacy capacities of participants, the questions on each instrument were read to the participant by the investigator.

Measures

Demographic Data Sheet. The researcher-developed demographic data sheet obtained descriptive information and consisted of six questions about age, marital status, ethnicity, race, age at first episode (onset) of self-mutilation, and time since most recent episode (in years, months or weeks, as appropriate). These questions obtained information on personal and situational factors not captured in any of the other data collection instruments.

The Deliberate Self-Harm Inventory (DSHI). The DSHI (Gratz, 2001) is a 17-item, behaviorally based, self-report questionnaire based on the conceptual definition of *deliberate*

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self-harm as the intentional, direct destruction or alteration of body tissue without conscious suicidal intent, but resulting in injury severe enough for tissue damage to occur (Favazza, 1996). This measure assessed various aspects of deliberate self-harm, including frequency, severity, how long the participant engaged in self-mutilation, and type of self-harming behavior. Several items ask for numeric estimates such as frequency or number of years something has occurred. Severity is a dichotomous question (serious enough to require medical treatment or hospitalization: yes or no). Sixteen questions ask about specific types of injury (e.g., burned with cigarette, burned with a match or lighter, carved words in skin, carved pictures or designs in skin, stuck sharp objects in the skin, pounded head against something causing a bruise, etc.). The last question asks about any other types of self-injury not on the questionnaire. The Deliberate Self-Harm Inventory scoring for question one (engaging in a specific type of self-harming behavior) as yes or no, question 2 asks if yes (to specific type of self-mutilating behavior) how old were you this was scored numerically according to age, question 3 (how many times engaged in this type of self- harming behavior) was numerically scored , question 4 (last time did this behavior) was scored in months and years, question 5 (How many years doing this behavior) was scored in years, and question 6 (required hospitalization or medical attention) was scored as yes or no.

Reliability: The DSHI was administered to a sample of 159 undergraduate students (68% female) at the University of Massachusetts (α=.83) (Gratz, 2001). The DSHI was found to have high internal consistency with a Kuder Richardson-20 (Cronbach's alpha) of .82 for 15 items (two items on the scale, dripping acid, using bleach or oven cleaner were excluded from that assessment because they were not endorsed by the participants and it did not change the internal consistency of the study). Thirteen of the items had item-total

correlations above $r=.33$. The scale had adequate test retest reliability over a period from 2 to 4 weeks ($p=.68$ p<.01). The number of self-harming behaviors endorsed by participants in the first administration and second administration were highly correlated ($r=.92$, $p<.001$).

Fliege, Kocalevent, Walter, Beck, Gratz, Guiterrez, and Klapp (2006), who examined 361 consecutive patients hospitalized in the Clinic for Internal Medicine's psychosomatic ward in Berlin, Germany, found the DSHI to have good internal consistency using the same approach, with a Cronbach's alpha of .81, split=half $r=.78$ and item-total correlations ranging from $r=.23$ to $r=.55$ (item 06). Test- retest reliability for the sum of the self-harming behaviors endorsed by participants was high ($r=.91$) and comparable to the original study (Fliege, et al., 2006).

Validity: Measures for self-harm such as in the DSHI and borderline personality disorder (BPD) measure both correlated highly with measures for frequency of self-harm in the deliberate self- harm inventory (DSHI), dichotomous variables in the DSHI, self-harm items in the suicide behavior questionnaire (SBQ), self-harm items in the diagnostic interview for borderlines revised (DIB-R), and self-harm items in the mental health history, with correlations ranging from $r=.29$ to $r=.48$ with the DSHI, demonstrating concurrent, convergent validity (Gratz, 2001). Small correlations (r=.12 to r= .21) were noted between the dichotomous variables, and frequency of self-harm in the DSHI and the history of suicide attempts and history of therapy demonstrating concurrent discriminant validity (Gratz, 2001). The DSHI frequency item correlated more strongly with BPD ($r=.48$) than with suicide attempts ($r=.21$) also demonstrating discriminant validity.

The Self-Injury Motivation Scale II (SIMS II). The SIMS (Osuch, et al 1999) was designed to explore motivations for self-injurious behavior in the psychiatric inpatient

population. Each item has a common stem: "I have injured myself", followed by 36 potential

reasons or motives (encompassing 6 dimensions) for self-injury. Examples of

reasons/motives include: "to produce feelings…of being real when I feel numb and unreal:

"to distract myself from emotional pain by experiencing physical pain;" "to decrease feelings

of fear" and "to prevent myself from hurting someone else". Each item is scaled with

numerical rating from 0 (never) to 10 (always). The scale has six subscales (motivations for

self-injury): affect modulation (9 items), desolation (4 items), punitive duality (6 items),

influencing others (5 items), magical control (7 items), and self-stimulation (4 items). Total

scores for the SIMS II are calculated by summing the ratings for all 36 items, and the total

scores for the six subscales are calculated by summing the item scores in each subscale

(Osuch, et al., 1999).

Reliability. Osuch, et al., (1999) studied inpatient psychiatric patients in a general

adult unit and in a trauma disordered unit (N=99). The SIMS total scale score ranged from 0

to 275 (total possible 350), with a median score of 98. Cronbach's alpha was .96 ($N = 99$),

with split half correlations of .92 ($p <.001$), and Guttman split-half reliability of .95. Test

retest reliability was .70 ($N = 32$, $p <.001$). The total SIMS was not significantly correlated

with race, gender, or educational level, but correlated weakly and negatively with age ($r =.-$

22, $p =<.03$). The SIMS was also found to correlate strongly with the variable frequency of

self-injurious behavior reported (percentage) in the semi-structured interview ($r =.57$, $p <$

005) (Osuch, et al., 1999).

Validity. Osuch (1999) developed items on the SIMS based on the literature on self-

injurious behavior, and on clinical contact with patients. A factor analysis reported six

dimensions (affect modulation, desolation, punitive duality, influencing others, magical

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control, and self-stimulation) that accounted for 85% of the variance. Cronbach's Alphas

ranged from .81 to .93 for all six factors. The Millon Clinical Multiaxial Inventory II

(MCMI- II) and the six dimensions of the SIMS demonstrated satisfactory convergent

validity in relation to the following MCMI- II subscales *self-defeating*, *disclosure*, *borderline*

personality, and *passive aggressive* (Table 3).

Table 3. *SIMS and MCMI II Correlation Matrix (Osuch, et al., 1999)*

	SIMS Affect Regulation	SIMS Desolation	SIMS Punitive Duality	SIMS Influencing others	SIMS Magical Control	SIMS Self-Stimulation
MCMI-II Self-defeating behavior	r= .56	r= .57	r= .69	r= .43	r= .55	r= .40
MCMI-II Disclosure	r= .44	r= .55	r= .54	r= .43	r= .59	r= .43
MCMI-II Borderline Personality Disorder	r= .42	r= .46	r= .46	r= .45	r= .56	r= .37
MCMI-II Passive Aggressive	r= .39	r= .43	r= .37	r= .45	r= .55	r= .42

Main outcome / dependent variables. The first two aims of the study were: (1.)

Identify relationships among age, motivational factors, and the frequency of self-mutilating

behavior. (2.) Determine which motivational factors contribute to the type and severity of

self- mutilating behavior. The main dependent variables were type (categorical) and severity

(continuous) of self-mutilating behavior. Other variables included age, marital status,

ethnicity, race, age of onset of self-mutilation, last self-mutilating episode, motivational

factors, and frequency of self-mutilation. Table 4 shows each variable, the source or data

collection method in which it was used, level of measurement, in which question it was

analyzed.

Table 4. *Quantitative Variable Measurement Table.*

Variable	Source	Level of Measurement	Question Analyzed
Age	Demographic Question Form	Continuous	Q1
Marital Status	Demographic Question Form	Categorical	Descriptive Results
Ethnicity	Demographic Question Form	Categorical	Descriptive Results
Race	Demographic Question Form	Categorical	Descriptive Results
Age of onset	Demographic Question Form	Continuous	Q1 Descriptive Results
Last self-mutilating episode	Demographic Question Form	Continuous	Descriptive Results
Motivational Factors	SIMS	Continuous	Q1, Q2
Frequency	DSHI	Continuous	Q1
Type of self-mutilaing behavior	DSHI	Dichtomous (yes/no)	Q2
Severity of Self-mutilation	DSHI	Dichtomous (0/1)	Q2

Qualitative data collection. Ethnography was the methodology used to gather qualitative data collection. Developed to study culture(s), ethnography is about telling a credible, rigorous, and authentic story. Ethnography gives a voice to people in their own local context, typically relying on verbatim quotations and a 'thick' (i.e., vivid, clear, detailed) description of events. The ethnographer adopts a cultural lens to interpret observed behavior, ensuring that the behaviors are placed in a culturally relevant and meaningful context (Fetterman, 2010). Visual ethnography is a specific ethnography used to gather qualitative data through the use of a photo-elicitation technique used during an ethnographic interview to gather and record rapid and accurate information, enhancing the researcher's comprehension of a phenomenon (Collier, 1967; van Leeuwen & Jewitt, 2001). "Visual records allow the participant in an activity or process to look and discuss those circumstances about themselves and provide an inside viewpoint" (Pink, 2001, p. 49). From images to words, photographs used during an ethnographic interview evoke narratives that construct the understanding of the participant's reality (Pink, Kürti, & Afonso, 2004). "Photo-elicitation is not solely a means of collecting data, but is also a means of producing data through reflexivity and negotiation" (Pink, Kürti, & Afonso, 2004, p. 38). The use of photographs in interviewing can itself be an entrée to the interview. The photographs are nonverbal, visual probes that lead the interview into the heart of the study (Collier, 1967). Photography as visual knowledge can also increase the amount of data obtained in a setting where access to the participant is limited. Visual ethnography in this study sample also assisted in bridging the psychological issues with physical realities by triggering in the participant's mind a motive, memory, or artifact. Visual ethnography allowed the participants in this study to give their perspectives in a visual and verbal language that offered apprehension into the

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meaning of self-mutilation, motivational factors, and characteristics. The insight provided by visual ethnography is based on social and cultural constructions of the images or wounds, and the interpretation of these images is a collaborative effort between the participants and the researcher in dialogue (Harper, 2005).

Photography. Prior to gathering data, the investigator arranged with the director of mental health for a room that was confidential and free of any items that could be used later for self-mutilation (to minimize risk of self-mutilation). Those participants who consented to the qualitative phase of the study had photographed their wounds or scars that were a direct result of self-mutilation. Only wounds and scarring on the back, legs, arms or torso were photographed. Scarring on the face, genital area or buttocks were not photographed. Two photographs were taken of (1) the most recent wounds or scars, and (2) most severe wounds or scars were photographed as identified by the participant. If the wounds or scars were located on the abdomen or legs, the participant received a patient gown or sheet that preserved personal privacy. The investigator stepped out of the room long enough for the participant to put on a gown or cover himself with a sheet.

A photograph was not taken of wounds that had a medical dressing in order minimize the risk of infection. Tattoos in the area of a wound or scar that would identify the participant were excluded from being photographed in order to minimize the risk of identification. All photographs were taken using a digital camera and were shown to the participant at the beginning of the interview phase on a laptop computer. Each photo was kept on the memory card and in the possession of the investigator. The memory card with the digital photographs of the wounds and scars was kept in a locked file cabinet in the office

of the investigator. Participants did not receive photographs of wounds, scars or their person. This minimized the security risk to the institution.

    Photo-Interviewing. A private conference room was used to interview each participant.   The investigator used the printed photo of the wounds or scars as a visual cue for discussion. This method is discursive, since interpretation of meaning occurs as an outcome of the researcher-participant dialogue. The photo-interviewing followed a loosely structured format in which initial questions were followed by probes, or more detailed follow-up questions. A grand tour question that encouraged detailed discussion was used to initiate the interview. A sample grand tour question for this study was "Tell me about this picture and what it means to you". This type of question encouraged the participant to identify the key areas of importance in his own narratives or stories. Although the investigator prepared a set of questions of interest to the study, she ensured that the participant was able to fully tell his story and was able to situate the key elements of the story within the context that was relevant to him. As a consequence, interview guides were subject to modification in the field (Patton, 2002; Agar, 1996). Sample interview questions were as follows: "Can you tell me about this photo of your wound and what it means to you?" "Can you tell me the story about this photo? " (Appendix C). The photo-interviews become a kind of social inquiry designed "as an effort to generate new knowledge of culture and social life through the systematic collection and analysis of sensory evidence and other forms of real-world data" (Wagner, 2007, p. 26). All interviews were audio taped and transcribed, and interviews took approximately 40- 50 minutes each. All interviews were sequentially coded for distinct conceptual categories of meaning, and recorded in the investigator's codebook (Patton, 2002). The codes were used to develop overall themes and meaning from the

narrative data. The final codebook is a confidential document that was kept in a locked

cabinet by the investigator.

  Supporting analytical rigor. Support for analytical rigor involved four criteria

(credibility, transferability, dependability, and confirmability), long recognized for

qualitative studies, and proposed by Lincoln & Cuba (1985). Credibility is considered to be

the truth value the responses hold for the participants and their contexts. Transferability

refers to the extent to which the study findings might be applicable for other respondents in

different contexts. Dependability is the consistency with which study findings might be

repeated if another inquiry took place with similar informants and contexts. Finally,

confirmability is the extent to which findings represent the views of the participants, as

opposed to those of the researcher.

  Several well-known strategies served to preserve the analytic rigor for this study

(Patton, 2002; Lincoln & Guba, 1985; Agar, 1996; Fetterman, 1998). Study credibility was

assured through the use of a reflective journal and frequent peer debriefing. The reflective

journal was used after each interview, to document the researcher's reflections on the process

and method, as well as her decisions, dilemmas, and efforts to minimize bias. Peer

debriefing (informal discussion with dissertation committee members and peers also involved

in qualitative studies) was done to explore emerging themes and design, and to monitor for

any sign of researcher bias. Transferability is considered the province of additional

researchers who may choose to follow the same or similar methods. However, efforts to

support transferability included naturalistic techniques such as detailed, clear, transparent

description (Geertz, 1973), and use of the reflective journal. The criteria of dependability

and confirmability were supported through the use of the reflective journal and an audit trail

(reflective journal/ field notes or research diary, including notes/explanations for all phases and activities of the research, carefully maintained and easily accessible).

Data Analysis

Consistent with the overall design, quantitative and qualitative data were analyzed separately in this mixed method study. Quantitative analysis was conducted using IBM SPSS Statistics (2008). The criterion for statistical significance was set at an alpha error level of ≤.05. The qualitative software used for this investigation was ALTAS TI (2008). This software was used in the arrangement, coding, analysis, and management of textual and visual data.

Quantitative data analysis. Descriptive analysis was used to examine measures of central tendency (for continuous variables such as age), appropriate to the level of measurement and distribution of each variable; mean and standard deviation (SD) for continuous variables that are approximately normally distributed; median, and interquartile range (IQR) for continuous variables that are not normally distributed; and modal category, frequencies, and percentages for categorical variables. Descriptive analysis was also used to examine the distribution of scores on continuous variables (skewness, kurtosis, and outliers).

Correlational analysis. To explore the first quantitative Specific Aim (identify relationships between the frequency of self-mutilation, motivational factors and age among adult males in a correctional setting), correlational analyses appropriate to the sample size, level of measurement, and distribution of variables were used: Spearman rank-order correlations (r_s) for continuous or ordinal variables; point-biserial correlations for dichotomous categorical variables with continuous or ordinal variables. The analysis explored relationships among age, the variables in the DSHI, and SIMS II subscales and total

scores. Variables with significant associations against DSHI frequency, severity, and the sum of DSHI "type" items were considered candidate predictors for use in multiple regression and logistic regression analyses. Spearman Rho was also used to explore the second aims (To determine which specific motivational factors contribute to the type of self-mutilation.) In addition, significant statistical, correlation coefficient values must be at least .20 to reflect minimal relationships strength to be used in potential regression analyses (Cohen, 1988).

Factor analysis. A principal components analysis was used to examine the SIMS subscales and how congruent they were with factors identified in previous studies. The Cronbach's alpha coefficient was computed to determine reliability of subscales.

Qualitative data analysis. Analysis of the photographs included the investigator's initial interpretations and meanings derived from the photo contents (which were recorded in a field journal) and the participants' interpretations and meanings, as documented in the audio taped photo-interviews (Pink, 2007). Field notes were used to record how the photos were produced in an interactive process with the participant, and to record the meanings or representations given to the photo by the investigator and participant at the time of their meeting and conversation/interview. Analysis of the interview transcripts and other sources of written data were based on a technique called *immersion and crystallization*, which is an iterative, contemplative, and reflexive approach to data analysis, where the investigator immerses herself into the data and focuses without distraction on the meaning of information obtained (Denzin & Lincoln, 2003). ATLAS TI 2008 (qualitative software) was used to organize, navigate, code and merge the audio, visual, and written data. The process of immersion and crystallization was followed by a detailed examination of the photographs

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(Pink, 2007), (line by line) of the text (interview and field notes), to enhance credibility by applying the crystallized findings to each section or category of data, and helped to synthesize and formulate descriptive codes that were data-driven. The final coding scheme and the development of themes (larger units of meaning that link codes meaningfully) were iterative, as well as informed and refined by the investigator's analysis of the visual data, narratives, and other written data, the interpretation, and the conceptual links to the theoretical framework. The use of photo-interviews as method tied the researcher to an ethical standard, blending both objective and subjective data in social inquiry Complementing the quantitative methods, visual ethnography depicted the social and cultural realities vividly, adding to the understanding and knowledge about self-mutilation in prison settings (Wagner, 2007).

Quantitative results. The quantitative results reports findings from the descriptive phase of analysis, presenting both the parametric and non-parametric correlations. Findings are presented in a written and visual format (tables & graphs) and addressed the two quantitative research aims, which were to:

1. Identify the relationship among age, motivational factors and the frequency of self-mutilating behavior.
2. Determine which specific motivation factors associated with the type and severity of self-mutilating behavior.

Qualitative results. Findings from the narrative and visual ethnographic data inform descriptively, providing insight, depth and understanding regarding characteristics, motivational factors and the meaning self-mutilation has for adult males in correctional settings. The aims of the study to be addressed in the qualitative dimension were to:

3. Explore the meaning self-mutilation possesses for adult males in a correctional setting.

4. Explore in greater depth motivational factors that influence self-mutilating behavior among adult males in a correctional setting.

Quantitative and qualitative results. Quantitative and qualitative data results were compared for points of convergence or divergence, and the qualitative findings were used to explain or expand upon quantitative results. These results and strategies were addressed and analyzed for congruence and relevance in the discussion section of the study.

Protection of Human Subjects

Prior to any data collection, the study was submitted to the Human Research Review Committee (HRRC) at the University of New Mexico Health Sciences Center (Appendix A). A certificate of confidentiality from the National Institute of Health (NIH) was obtained prior to beginning the study (Appendix G). The certificate of confidentiality is an important tool to protect the privacy of the study participants. It also protects identifiable research information from forced disclosure, and allows the investigator and others who have access to the research to refuse to disclose identifying information in research (NIH, 2008). Upon approval from the HRRC and the New Mexico Department of Corrections, each potential participant received informed consent and a set of instruments coded with a unique, anonymous study identification number. The investigator did not maintain identifiers such as name, date of birth or prisoner identification number. The investigator is a clinical nurse specialist (CNS) in adult mental health. She informed each participant verbally and in writing the provision of assurances of confidentiality, anonymity, and the right to withdraw from the study at any time. She did not work at any of the correctional facilities involved in the study, nor did she know personally any of the prisoners. Potential informants were also

informed that participation in this study would not have any influence, advantage, or benefits to the general living conditions, medical care, quality of food, amenities, early parole release, and the opportunity for earnings in the correctional facility.

Minimizing physical and psychological risk factors. The researcher conducted all consenting, interviewing and data collection. To minimize the risk of harm to the participants and protect against the risk of self-mutilation due to any research questions, participants were advised of their facility's access to mental health services, which were available seven days a week, 24 hours a day, on either a scheduled or emergency basis. Every State of New Mexico correctional facility employs mental health clinicians/ therapists that maintain 24-hour services to manage any mental health crisis situations. Each mental health director in each facility where this study was conducted was advised of the study and its potential to trigger feelings of self-mutilation among participants. If during any testing or interviewing the participants requested mental health services, the interview would be terminated, and a mental health provider contacted immediately by the researcher. However, no such occasions/events occurred in this study.

Minimizing risk of identification & anonymity. A copy of the consent was given to each participant, and the investigator retained the original copy. All data were coded in order to ensure confidentiality and anonymity, with no personal identifiers such as a name or prison identification number. For the purposes of the visual ethnographic qualitative collection, digital photos were limited to wounds or scars from acts of self-mutilation and did not include any individually identifiable characteristics (e.g., faces or identifiable tattoos), thus protecting participant confidentiality. All data including instruments, photos, audio-taped interviews, coding books, or field notes were kept in a locked and secure cabinet by the

investigator until the completion of the study and the defense of the researcher's dissertation. After these important activities were completed, all textual data were destroyed by the investigator. Unidentifiable photos lacking any personal identifiers will be kept for secondary analysis in a locked cabinet of the investigator, for a period not to exceed one year after the study ends. The only record of the participant's name was the signature on the informed consent. Consents are maintained in a separate file from the data.

Compensation for participation. As a token of appreciation for participation in the study, a small monetary gift of $5.00 was deposited into the participant's commissary account upon completion of participation. The amount was judged insufficient to represent coercion, yet acknowledged their participation.

Summary

This chapter described a mixed method sequential explanatory design used to explore the phenomenon of self-mutilation among adult males in NM correctional facilities (Appendix D). Specific strategies used to minimize risks of physical and psychological harm to the participant during the study were also detailed. A mixed method design that gives greater weight to the quantitative methods was used in the initial phase to gather data on demographics, type of self-mutilation, severity and frequency of self-mutilation, and motivational factors. The use of visual ethnography and individual interviews followed the quantitative phase to gather visual and verbal data on the cultural meaning of self-mutilation for adult males in the correctional settings. The uses of qualitative methods expanded, deepened and built upon quantitative results. Measures to insure the validity and reliability of the quantitative methodology and establish trustworthiness in the qualitative methods are of importance in a mixed method design, and were explained by the researcher. Exploring

the phenomenon of self-mutilation among adult males is important for further research in the area of assessment and diagnosis, treatment outcomes, and strategies for managing self-mutilating behavior in a correctional setting, and next chapters explain the results of the current investigation.

Chapter IV

Quantitative Results

This chapter will focus on the *quantitative* results of this study and the following research questions: 1) Identify relationships among age, motivational factors, and the frequency of self-mutilating behavior, and 2) Determine which specific motivation factors are associated with the type and severity of self-mutilating behavior. A sample of 42 adult male subjects with a history of self-mutilation was obtained from the New Mexico Corrections Department (Levels I, II, and III). Results will be reported from the two instruments, the Deliberate Self- harm Inventory (DSHI) and the Self Injury Motivational Scale (SIMS) used in this study. Reliability analyses were conducted on each scale of the SIMS and a factor analysis was performed on the SIMS subscales. There were no missing data in this sample. This chapter will present demographic characteristics of the sample followed by analysis of the instruments. To further answer the research questions, correlational studies were performed on the DSHI and SIMS scales.

Demographic Characteristics of the Sample

The subjects were all male, aged 20 to 55. The sample was approximately 40% Hispanic/Latino ethnicity. Approximately ¾ of participants were White (Table 5).

Table 5. *Study Sample Age, Ethnicity and Race*

Variables	Mean(sd)	Ranges	% (n)
Age	36.9 (9.5)	20-55	
Ethnicity			
Hispanic/Latino			40.5 (17)
Non-Hispanic/Latino			59.4 (25)
Race			
White			76.2 (32)
African American			14.3 (6)
American Indian			9.5 (4)

Self-mutilation Descriptive Characteristics

The age of onset of self-mutilation ranged from 5 to 44 years. The greatest percentage (37%) of subjects reported age of onset of self-mutilation by age 10 (Figure 5) with another 10% reporting the onset of self-mutilating from 11 to 16 years of age. Self-mutilation generally seems to begin before the person is incarcerated. The majority of participants began engaging in all types of self-mutilation by age 26. The self-mutilating types with highest average age for onset were dripped acid (M= 21.5 years, N= 2) and rubbed glass to skin (M= 26 years, N= 3). Over a third (37.5%) of the subjects had participated in self-mutilation within a year of the study (Figure 6). Another 21% of the subjects had participated in self-mutilation between 1- 2 years of the study interview, indicating that over half of the sample was involved in fairly current self-mutilation behavior.
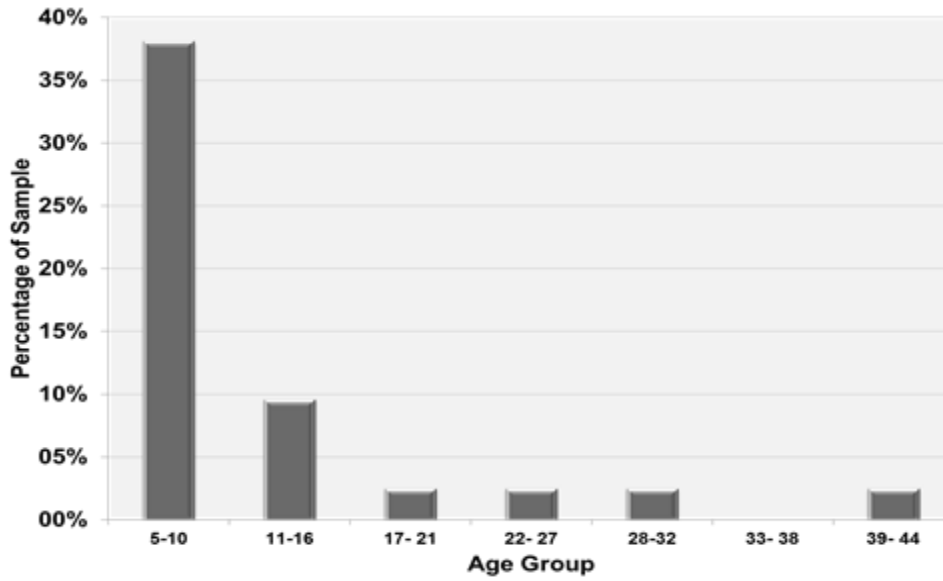
Figure 5. **Percentage of sample by age group for onset of self-mutilation behavior (2% not included in the sample)**
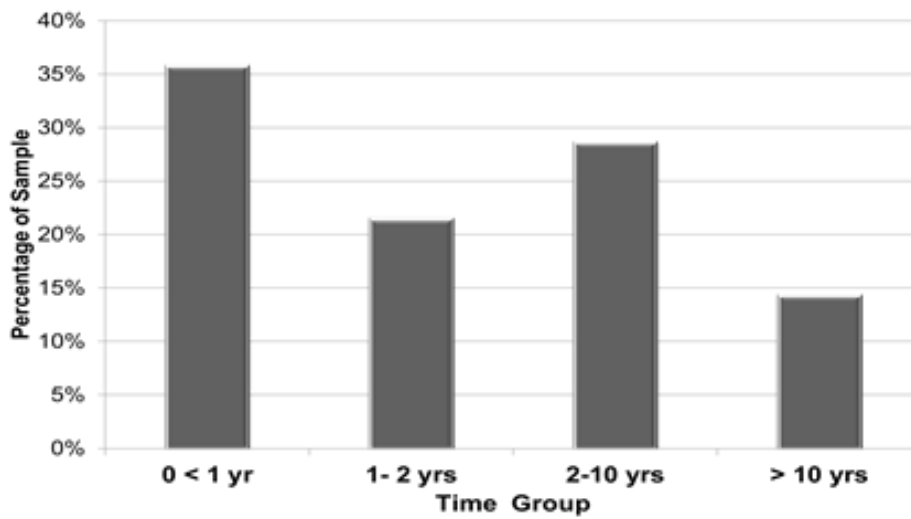
Figure 6. **Percentage of sample by length of time since last engaging in self-mutilation**

Instrument Evaluation

Deliberate Self-Harm Inventory (DSHI). The DSHI is a survey tool with 102 (total) questions, with one general question inquiring about self-harm, age of onset, number of times engaged in specific behavior, years doing this behavior, last time this behavior was done, and whether the specific type of behavior resulted in hospitalization or required medical attention (Appendix C). It elicited 17 specific types of behaviors and one question inquiring about any other type of self-mutilation not specified in the questionnaire. There were no missing items from this tool as it was administered face to face. If subjects had questions, they were answered/clarified during administration by the researcher.

Sample characteristics of the DSHI. Subjects on average endorsed 15 types of self-mutilation ranging from cutting to the prevention of wound healing (Figure 7). The self-mutilating behavior *burned* is defined as burned (item # 2) self with a cigarette. The self-mutilating behavior *burned 2* (item #3) is defined as burned self with a lighter or match. The three self-mutilating types that were endorsed by over 70% of subjects were cutting (N= 39, 92.9%), banged head (N= 33, 78.6%), and stuck themselves with sharp objects into skin (N= 30, 71.4%). Over half of the subjects indicated that they had punched themselves (N=23, 54.8%), prevented a wound from healing (N=23, 54.8%) and inflicted severe scratches on themselves (N= 22, 52.4%). The other types of self-mutilation characterized 17 or fewer participants. No participant reported scrubbing skin with corrosive chemicals (bleach, comet or oven cleaner). Only 2 participants endorsed dripping acid or rubbing glass on skin. The following sections will provide more detailed sample characteristics of self-mutilation types and frequencies.
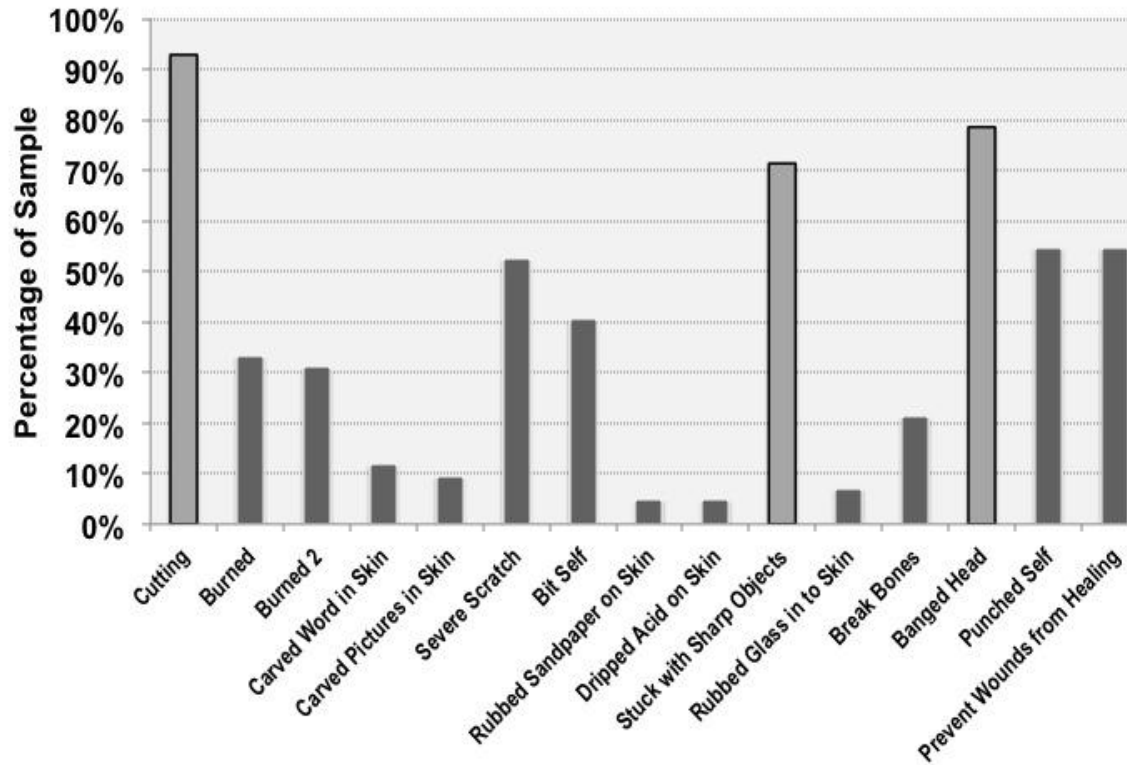
*Burned= burned with a cigarette; Burned 2= burned with a lighter or match.

Figure 7. **Percentage of sample by type of self-mutilating behaviors subjects**

participated in.

Appendix F contains a detailed table that provides the responses to all 16 types. When asked

how many times they engaged in each self-mutilating type, in general they stated that they

participated an average of 223 (SD= 236) times across all types. No subject participated in

all types of self-mutilation activities. Overall, participants reported engaging more times in

cutting behavior (2746 times) with one individual indicating having cut himself up to 700

times. (Photo 1 documents the reality of this self-report.)   Sticking themselves with sharp

objects was the second highest reported self-mutilation behavior (1830 total), with one

individual reporting having done this 500 times.

Table 6. *Number of self-mutilation events over a subject's lifetime by type of behavior.*

Type of behavior	Minimum	Maximum	Sum	Mean	Std. Deviation
Cutting	0	700	2746	65.38	124.64
Burn	0	100	198	4.71	16.14
Burn2	0	100	258	6.14	21.57
CWS	0	50	70	1.67	7.99
Carving into skin	0	10	23	0.55	2.17
Sever scratching	0	200	993	23.64	47.16
Biting self	0	100	350	8.33	19.89
Rub skin with sandpaper	0	20	21	0.50	3.09
Drip acid on skin	0	15	18	0.43	2.35
Bleach scrub	0	0	0	.00	.000
Stuck sharp object	0	500	1830	43.57	83.20
Rubbing skin with glass	0	20	22	0.52	3.09
Broke bones	0	40	70	1.67	6.45
Banged head	0	150	1054	25.10	34.37
Punched self	0	100	819	19.50	30.95
Prevented wound healing	0	150	726	17.29	34.02
Other	0	30	156	3.71	6.61
Total	8	1221	9354	222.71	235.72

Participants reported engaging in burning themselves and punching themselves for an average of 16 years (Figure 8). Cutting, sticking oneself with sharp object, breaking bones

and burn2 (i.e., with a lighter) were reported as being engaged in for an average of 13 years. Rubbing sandpaper on skin was reported by only two individuals, and for the shortest time (< 2 years).

Photo 1: Photo of participant who reported 300 lacerations to his arms bilaterally and reported an additional 400 lacerations over his body.

Thirty-eight participants (90%) had received medical treatment or hospitalization as a result of self–mutilation behaviors. The types of self-mutilation endorsed by participants that required medical treatment or hospitalization for greater than a third of the sample were: cutting (73.8%, N= 31), preventing wounds from healing (40.5%, N= 17), and others (40.5%, N= 17) which primarily involved ingesting a foreign object or chemical, stuck themselves with sharp objects (33.7, N= 15), and banged head (33.3%, N= 14). There were four types of self-mutilation that were reported as not needing medical attention or hospitalization: carved pictures in skin, carved words in skin, rubbed sandpaper, and rubbed glass in skin.
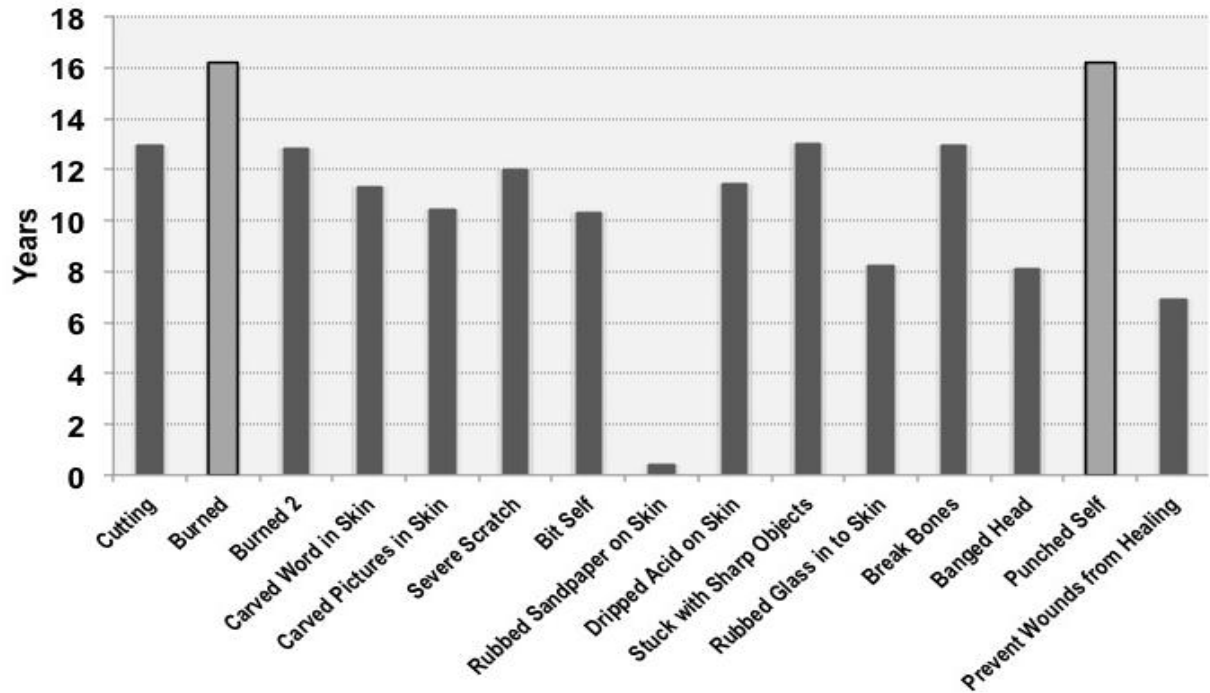
Figure 8. **Number of years participants had engaged in specific types of self-mutilation behavior.**

Self-Injury Motivational Scale (SIMS).

Instrument evaluation. The SIMS has 37 items and six subscales as defined by Osuch et al (1999). The six subscales of the SIMS are affect modulation (9 items), desolation (4 items), punitive duality (6 items), influencing others (5 items), magical control (7 items), and self- stimulation (4 items). Factorial validity was assessed with principal components analysis using two extraction criteria (1-factor and eigenvalue > 1.0). Reliability (internal consistency) was assessed with Cronbach's alpha.

Factorial validity. A factor analysis using principal components extraction and a one-factor criterion was conducted on each of the six subscales (affect modulation, desolation, punitive duality, influencing other, magical control, and self-stimulation) of the SIMS. All six subscales had factor loadings above 0.30 for each item, and the single factor

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accounted for over 40% of item variance in each case. Two subscales had eigenvalues above 3.0 (affect modulation and punitive duality), and the remaining values were above 2.0 (Table 7). The Kaiser-Meyer-Olkin, a measure of sampling adequacy, was .60 or greater, which is low, but adequate considering the small sample size.

Table 7. *Summary of factor analysis of self-injury motivations subscales using principal components and one-factor extraction criteria.*

Subscale	# Items	KMO	Factor loadings range	Eigen value	% of explained variance
Affect Modulation	9	0.77	.41 - .81	3.6	46%
Desolation	4	0.83	.71 - .87	2.5	64%
Punitive Duality	6	0.67	.69 - .74	3.0	51%
Influencing Others	5	0.60	.46 - .83	2.1	42%
Magical Control	7	0.67	.37 - .74	2.4	42%
Self-Stimulation	4	0.67	.85 - .63	2.1	53%

KMO= Kaiser-Meyer-Olkin a measure of sampling adequacy

Reliability. Four subscales of the SIMS had acceptable Cronbach's alpha estimates (≥.70): *Affect Modulation, Desolation, Punitive Duality,* and *Self-stimulation* (Table 8). The subscales *Magical Control* and *Influencing Others* had Cronbach's alpha estimates less than 0.70, indicating low internal consistency reliability. In an attempt to improve the Cronbach's alpha for these subscales another reliability analysis was conducted excluding items from the subscales that had low item-total correlations. The *Magical Control* subscale Cronbach's alpha increased marginally, from .66 to .67, when excluding the item "to control the reactions

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and behavior of others". Therefore, the *Magical Control* scale was retained without
modification, recognizing that its reliability was low. For the subscale *Influencing Others*,
the items "irritate or shock" and "seek support" were excluded given their low item-total
correlation, but the Cronbach's alpha estimate only increased from .63 to 68. Therefore, the
Influencing Others subscale was not used in further analysis because even removing two out
of five items did not result in acceptable internal consistency.

Table 8. *Self-injury motivations subscales descriptive statistics and reliability.*

Subscales	Mean item score	Minimum	Maximum	alpha
Affect Modulation	6.4	4.5	8.3	.83
Desolation	6.0	4.9	7.3	.81
Punitive Duality	4.3	2.5	5.7	.81
Self-stimulation	3.7	1.4	5.1	.70
Influencing Others	5.9	3.5	6.4	.63
Magical Control	4.3	2.6	6.3	.66

Sample characteristics for the SIMS. In this sample, the SIMS subscale with
greatest mean score (indicating the greatest motivation for self-injury), was *Affect
Modulation* followed by *Desolation* (Table 8). The lowest score seen was with *Self-
Stimulation* but this subscale also had the greatest standard deviation and range, suggesting
more diversity in response to these items.

Results of Analysis for Aims 1 and 2

Aim 1 was to identify the relationship of age, motivational factors and the frequency
of self-mutilating behavior. Aim 2 was to determine which specific motivation factors

contribute to the type and severity of self-mutilating behavior. Spearman rank-order

correlations were used to evaluate the relationships described in Aims 1 and 2. To examine

the relationships in Aim 1, frequency was defined as how many time subjects reported

having done a particular type of self-mutilation behavior. Five SIMS subscales were used in

this analysis; *Affect Modulation, Desolation, Punitive Duality, Magical Control and Self-*

Stimulation (Table 9).

Table 9. *Spearman Correlations between frequency of deliberate self-harm, motivational*

factor and age.

Types of Self harm	Age	Affect Modulation	Desolation	Punitive Duality	Magical Control	Self-Stimulation
			Motivational Factors			
Cutting (N= 39)	.115	.266	.144	.109	.121	.317*
Burned (N= 14)	-.113	.538*	-.575*	.472	.559*	.609*
Burned2 (N= 13)	.258	.425	.347	.321	.336	.228
Severe Scratch (N= 22)	.188	-.088	-.311	-.131	-.165	-.029
Bit Self (N= 17)	-.527*	.018	-.020	.387	.255	.363
Stuck with Sharp Objects (N= 30)	.281	-.175	-.287	-.410*	-1.83	-.154
Banged Head (N= 33)	-0.79	.451**	.246	.273	.184	.230
Punched Self (N= 23)	.163	.376	.142	-.079	-.060	.121
Prevent Wounds from Healing (N= 23)	.406	.254	.076	.056	-.112	-.110

Age was inversely correlated with the frequency of times the participant bit himself ($r = -.53$, $p < .05$). The frequency of "cutting" was positively correlated with the *Self-Stimulation* motivational subscale, although the correlation was rather weak ($r = .32$, $p <$ .05). The frequency of having burned oneself with a cigarette (Burned) correlated positively with the subscales for *Affect Regulation, Magical Control*, and *Self-stimulation* ($r = .54$ to $.61$, $p < .05$), and negatively with the Desolation subscale ($r = -.57$, $p < .05$). The frequency with which the participant stuck himself with sharp objects correlated inversely with the punitive duality motivational subscale ($r = -.41$, $p < .05$). The frequency with which he banged his head correlated with the affect modulation ($r = .45$, $p < .01$). The inverse correlations that occurred in this analysis indicated that a particular motivating factor was lower in persons who engaged more frequently in a particular form of self-injury. For example, those who burned themselves with cigarettes more frequently tended to have lower scores on the Desolation subscale. The same was true for age, where biting oneself was associated with being younger.

To address Aim 2, Spearman correlations were used. In this analysis, the duration (how long they have done this type of self-mutilation) of deliberate self-harm was used to examine relationships between the type of self-mutilation and motivational factors. As in the previous analysis, only the 5 subscales of the SIMS were used. Age was included since it was considered potentially important in relation to the duration the participant had inflicted self-harm.

Only two motivational factors were linked to duration of engaging in self-mutilation behaviors. Increased duration of self-inflicted severe scratches and preventing wounds from healing positively correlated with the motivational factor subscale Magical Control ($r = .46$

and .44, respectively, p < .05). Otherwise duration of a given behavior was not associated

with motivational factors. Age was positively correlated with how long (in years) participants

had burned themselves with cigarette (r= .57) or with a lighter or match (r = .54), had stuck

themselves with sharp objects (r = .46), or punched themselves (r = .46).

Table 10. *Spearman Correlations between duration of deliberate self-harm, motivational*

factor and age.

Types of Self harm		Motivational Factors				
	Age	Affect Modulation	Desolation	Punitive Duality	Magical Control	Self-Stimulation
Cutting (N= 39)	.312	-.107	-.110	-.147	-.021	-.058
Burned (N= 14)	.566*	-.111	.029	-.095	-.098	-.396
Burned 2 (N= 13)	.540	-.264	.297	-.006	.008	-206
Severe Scratch (N= 22)	.361	.284	.135	.392	.459*	.221
Bit Self (N= 17)	-.327	.247	-.128	.193	.216	.363
Stuck with Sharp Objects (N= 30)	.463*	-.198	-.200	-.331	-.012	-.246
Banged Head (N= 33)	.103	.085	-.171	.098	.089	.049
Punched Self (N= 23)	.456*	.219	.033	-.081	-.036	-.223
Prevent Wounds from Healing (N= 23)	-.085	.272	.107	.292	.443*	.312

p ≤0.05 (2- tailed).

To further examine the relationship of motivational factors and age at which self-mutilation behaviors occurred, additional correlations were conducted using the total number of self-mutilation behaviors engaged in by the participant. The total number of self-mutilation behaviors was positively correlated with three motivational factors: *Punitive Duality* (r= .35), *Self-stimulation* (r= .32), and *Magical Control* (r= .31), indicating that these motivational factors were increased in participants who engaged in more self-mutilating behaviors. While those relationships were statistically significant (p < .05), the correlations were not strong (r ≤ .35). Furthermore, the number of self-mutilation behavior types was inversely related to age of onset (r = -.35, p < .05), suggesting that older inmates engaged in more types of self-mutilation.

Summary

In summary, subjects in this study demonstrated a large number of self- mutilating behaviors, with participants engaging in some form of self-mutilation, on average, over 200 times. Of the 17 types of self- mutilating behavior on the DSHI, participants engaged in all but one type. The most endorsed type of self-mutilating behavior was cutting (N= 39, 93%) which also required the greatest amount of medical treatment or hospitalization (74%). The next two most frequently endorsed types of self- mutilating behaviors were head banging (N= 33, 79%) and sticking self with sharp objects (N= 30, 55%).

Relatively few relationships were seen between motivational factors and frequency of particular self-mutilation behaviors. *Self-Stimulation* was positively and significantly correlated with frequency of burning with cigarettes and cutting. *Magical Control* was positively and significantly correlated with frequency of burning with cigarettes. *Affect modulation* was positively and significantly associate with head-banging and positively

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(though not significantly) with frequency of burning with a match or lighter. *Punitive Duality* was significantly and positively correlated with frequency of sticking oneself with sharp objects and positively (though not significantly) with frequency of burning with cigarettes. *Desolation* was negatively correlated with frequency of burning with cigarettes. Frequency of burning with cigarettes was moderately correlated with all 5 SIMS subscales. Frequency of severe scratching, biting oneself, punching oneself, and preventing wounds from healing had only weak, but not significant correlations with motivational factors.

Correlations between motivational factors and the duration of self-mutilating (how long someone has done a particular behavior) were weak and generally not statistically significant. Self-inflicted severe scratches and preventing wounds from healing were positively and significantly correlated with the motivational subscale magical control (r= .459 and .443 respectively). None of the other motivational scales was significantly correlated with duration of any other self-mutilating behavior. Age was positively correlated with duration of burning with a cigarette, sticking with a sharp object, and punching oneself.

Chapter V

Qualitative Results

The purpose of this chapter is to present the findings from the *qualitative* dimension of the study. The aims of the qualitative phase of inquiry were Aim #3, explore the meaning self-mutilation holds for adult males in a correctional setting and #4, explore in greater depth motivational factors that influence self-mutilating behavior among adult males in a correctional setting. This chapter presents the results of data generated from digital photos taken of scars or wounds due to self-mutilation. Interviews were conducted with adult males with a history of self-mutilation who were incarcerated in New Mexico's Department of Corrections (Levels I- III). Photographs of scars from self-mutilation appear within the findings to visually convey what the verbal data expressed. This supports Pink's (2007) contention that "The purpose of analysis is not to translate visual evidence into verbal knowledge, but to explore the relationship between visual and other (including verbal) knowledge" (p. 119).

The chapter will discuss the meaning of the label *self-mutilator* (aka cutter, attention seeker, and manipulator) for the adult male who self-mutilates in prison, and the practice of self-mutilation as a means of survival in a hostile environment. Major and minor motivational themes identified by participants will be presented and underscored by their own words. Findings showed themes that reflected mood/ emotional dysregulation as a motivational factor, a means of communicating feelings, needs, and voices, and self-mutilation as a form of addiction, loneliness and isolation. Finally the chapter will analyze the digital photos in the context of the interviews and the stories told by the men themselves, and study findings will be compared to other qualitative findings for similar populations.

Analysis of the transcripts began with a thorough review and initial coding of the data to identify the key concepts in each interview. Similarities and differences were then reviewed in order to develop a common frame of reference for interpreting the data set. All eligible subjects (42) volunteered to also participate in the quantitative phase of this study. All participants agreed to have digital photographs taken of scars or wounds that were precipitated by self-mutilating behavior. Photos were not taken of specific tattoos, scars or wounds, in the unlikely event the photos were seen by other prisoners who could identify them. The common themes identified included the following: person gets labeled as a "cutter" or "attention seeker", or "manipulator"; self-mutilation may become a "means of survival" in a difficult environment; and the end result is often shame and embarrassment.

Labeling the Self-Mutilator

Interviews revealed that self-mutilation in a correctional setting may have multiple meanings to the participant, other inmates, and even the correctional staff. Participants reported that being identified as adult males who self-mutilate in prison can have negative consequences in their prison social structure. Self-mutilation possesses a social stigma in an adult male correctional setting. For example, the self-mutilator feels devalued, rejected, isolated and shunned. Participants reported being labeled by other inmates and correctional staff as "cutters", "attention seekers", or "manipulators". Being identified as a "cutter" was perceived by other inmates as a "weakness" both psychologically and physically. The perception of weakness by other inmates can lead to attempts at personal exploitation, physical assaults such as rape, or can place self-mutilators in situations leading to death. Participants reported that if they were labeled as weak, they had to prove their "manhood" or "save face" (respect) by becoming extremely violent in their self-mutilation in order to be

taken seriously and be seen individually as a "man" who can take care of himself physically

if necessary, or as someone who was in psychological distress and urgently needed mental

health services. Participants reported that once they were identified by correctional staff or

mental health services as "cutters", they were not treated with "respect" and had to work to

convince staff that they were in real psychological distress by committing acts of self-

mutilation considered medically to be very serious. Comments from participants supporting

this interpretation included:

> P: "They call us cutters, administration sees us as a cutter, that's all just "cutters"

> P: "I am a cutter, I have to prove I am serious and not attention seeking, they wanna
>
> play with me I will show them" "I will go deep and bleed everywhere to show
>
> them I am a warrior and not weak" "I am a grown man here like everyone else"

> P: "Did you see how they bring me in on a leash" "We are like dogs, not men, a dog
>
> who cuts", "a cutter who is a dog" (As the participant left the interview he was
>
> being put in shackles that were attached to a chain that resembled a leash, the
>
> participant looked at me, barked and winked), (Photo 2).

Photo 2: Multiple lacerations to the arm with a piece of broken plastic fork

Labeled a "manipulator" or "attention seeker" by correctional staff or mental health services, the self-mutilating behavior was not perceived by staff to be a result of psychological distress. Self-mutilating behavior was labeled as manipulative by correctional staff or mental health services, and was viewed as a perversion of the official prison system by inmates, to serve the inmates' personal goals (e.g., to obtain a transfer to another, ie different housing unit, obtain personal property, or a privilege). Labeling self-mutilating behavior as manipulative can have negative consequences, such as formal disciplinary action that leads to a "write up" or report outlining disruptive behavior that if convicted by the disciplinary officer and disciplinary committee, can result in loss of "good time" (days off sentence given due to good behavior) or possible segregation. In order to avoid these disciplinary actions or consequences, participants reported self-mutilating behavior that was shocking in nature, that correctional and mental health staff would not label as "manipulative", but instead would see as psychological distress. In the words of inmates:

P: "The blood talks for me", "You know guys don't talk but when I put my life out there to make a statement or express myself I am a manipulator, I am sick in my mind you know" "they tell me I do if for attention, ya attention listen I can't take it!"

P: "If they think you are manipulating they want to come in and take you by force, put you in segregation or give you a write up, that is easier than finding out what is up with me"

Self-mutilating behavior that was labeled as "attention-seeking" decreased the self-mutilator's social status or position within the prison culture. Labeling the adult male who self mutilates in a prison setting as an "attention seeker" is viewed by participants as devaluing for an adult male, and perceived by others as a personal weakness or dishonorable behavior. Self-mutilating behavior is commonly seen as attention-seeking in nature, and not as a method of seeking help or assistance for a behavioral health issue. However, not all self-mutilating behavior in this study was done for attention, and there were participants who reported self-mutilating in secret settings, away from others. Self-mutilating in secret was reported to be a means of escape, releasing negative feelings or energy and practiced out of sight from others. Avoiding detection by other inmates or correctional staff was done by self-mutilating in areas of their bodies that were not exposed (such as inner thighs, upper arms, knees) and that could be covered by clothing. Some of these men commented:

P: "Well my only thing is, that the misunderstanding that people have in today's society of it's just an attention getting. It's not. It's not, for attention, I don't even show them what I have done, I do it for me not them, I mean I am a grown man for god sake, I mean you can say that they treat us like animals or less";

"they don't know when I hurt myself in here, I don't want to get moved or anything, I sometimes need it to get by in this place, you know not think about my screwed life" ; "I cut in places they can't see" (Photo 3).

P: "I do it for myself. I don't ask for attention, I don't do it, I don't want nobody to know. I don't want anybody to see it, cause it's just like talking to mental health. They say why didn't you tell me or why didn't you tell somebody and I said cause I don't want nobody to know. If I was to go and cut myself and go up say hey nurse or Dr., Whoever, I cut myself then that's just lookin for attention" (Photo 4).

Photo 3: "Repeated cutting in secret".

Photo 4: Cut below knee with a razor where it could be hidden by his pant leg.

Self-mutilating was also described as a way to control the environment when that environment was perceived to be dangerous or deadly to the self-mutilator. Participants reported that self-mutilating was easier than waiting for someone to kill or harm them. The anxiety of waiting for a possible physical attack could be addressed and eased by self-mutilating where correctional or medical staff would be aware of the behavior and the need to take action. The adult male who self-mutilates forces the correctional system to protect him by placing him in another housing unit without identifying predators, or other inmates likely to attack. Identifying predators to correctional authorities is seen as "snitching" and goes against an ingrained inmate code of conduct. Snitching on another inmate to correctional authorities can result in death. If an inmate is suspected of "snitching" he must find a way to be placed in a safe environment in order to avoid a fatal altercation. Self-mutilation then becomes a means of survival and an attempt at controlling the environment. Participants made these remarks:

P: "See over there you can go over there that's the free line you know but, I can't move because something gonna happen. They know that something's gonna go down and somebody's gonna get stuck and I'm not gonna get jumped by fifteen guys. I'm gonna tie a knife to my hand and I'm gonna stick as many as I can you know? They're gonna hurt me I'm gonna hurt them you know?", "and I don't want that I can't do lock up so I will hurt myself", "You know when the blood flows they hear me", " I felt, I felt, I guess I felt like something's being done I need to be moved", "You know, something's going to happen, now that this is done, other people are gonna look my way, maybe the warden will come by and say, hey bro, you know, what's up?", "are you safe?"

P: "Yeah, those guys (correctional staff) are putting me in a fucked up situation you know and those guys think I'm playing, I just wanna do my time and go home but those guys wanna fuck with me and wanna fuck with my emotions you know, excuse my language, but I told them we'll see, so I cut". "Cause I've been put in situations where I feel angry or afraid and the need to do that to myself, you know guards harassing me, pestering me, um putting me in situations where I didn't feel safe". "They were going to let me out and a prison gang was gonna get me, they gonna let me out so I cut my throat and my wrists" "they were gonna let me out something was gonna happen here so I got the razor and in front of him (correctional officer) I cut my throat and cut both my wrists, I had to roll the dice" (Photo 5).

Photo 5. Cut throat and wrist with a razor blade to avoid a possible altercation with another inmate.

Exploring *motivational factors* for self-mutilation revealed major and minor themes, as depicted in Table 11.   The motivational determinants were derived using both Atlas TI three-stage coding process, and manual data analysis (for comparison). Motivational themes noted were **Mood/emotional dysregulation**; **communicating needs**, feelings, and having a voice; and **addicting qualities** of self-mutilation. These findings emerged as the primary themes in the identification of *motivational factors* for self-mutilation among the interviewees. Another minor, less prominent theme was disassociation, which is defined in the Diagnostic and Statistical Manual of Mental Disorders (4th Ed) (2000) as a disruption in the usually integrated functions of consciousness, memory, identity, or perception that may be sudden or gradual.

Table 11. *Motivation Themes for Self-Mutilation*

Themes for Self-Mutilation	2nd Round Merging Codes		3rd Round Merging	
Mood Dysregulation	⇨	Mood Dysregulation		
Release Negative Emotional Pain				
Past Memories				
Relationship Issues			⇨	Mood Regulation (anger/ calming/ releasing negative feelings)
Disassociation				
Isolation	⇨	Release negative feelings		
Impulsive				
Loneliness (isolation, alone, bored)				
Calming				
Anger	⇨	Anger		
Protection	⇨	Communication (express self, be heard, need met)	⇨	Communication
Get needs met				
Express Self				
Rush	⇨	Addicting (addicting, rush)	⇨	Addicting Qualities
Addiction				

Motivational themes were obtained using Atlas TI (2008) three stage coding process and by manual analysis to produce three major themes (mood regulation, communication, and addictive qualities). The first stage of the coding produced several motivational themes that required a secondary coding that merged themes into five separate themes (mood dysregulation, release of negative feelings, anger, communication, and addicting). The first major theme in the secondary coding, mood dysregulation, merged with release of negative feelings, emotional pain, past memories, relationship issues, and disassociation. The second round major theme, release of negative feeling, was derived by merging the following themes: isolation, impulsive, loneliness, and calming. It also merged with the first round

motivations theme. The major theme of anger only merged with the first round theme of anger. The secondary theme of communication was merged by including the themes of protection, get needs met, and express self. The secondary major theme derived was addicting and was obtained from the themes rush and addiction. The final 3rd round merging produced the final major themes: mood regulation, communication, and addicting qualities. Mood regulation included the second round themes of mood dysregulation, release feelings, and anger. Communication was derived from the second round theme of communication. The final theme addicting qualities was taken from the second round merged code of addicting.

Mood/Emotional Dysregulation as a Motivational Factor

This theme refers to difficulty regulating or controlling one's emotional responses and behavior. In many of the interviews participants reported that self-mutilation was used to control or calm unwanted emotions or control emotional or psychological pain. These negative emotions included anger, rage, anxiety, sadness, depression, fear, or frustration. They reported that self-mutilation allowed them to release unwanted emotions and then provided a sense of calmness, or a mechanism by which they could cope with unwanted emotions. One individual described the self-mutilation as a "calming of the beast within". The sight or warmth of the blood (with self-mutilating) was also reported as regulating intense feelings of anger or rage and helped calm their emotions. The sight or warmth of the blood became a symbol for release of unwanted feelings such as fear, anger, or a mechanism by which the self- mutilator is able to modulate emotions. The following quotes are examples of how these men used self-mutilation as a method of controlling unwanted emotions:

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P: "I feel like I am on an emotional rollercoaster and can't get off so I cut myself",

"Well I got angry and I just stabbed myself with the paperclip sharpened

punctured my intestine" "I feel better afterwards you know calm" (Photo 6).

P: "The blood transfers the pain and anger", "the pain goes out with the blood flow",

" I stop when I start feeling the blood pouring off, I don't know it makes me

happy", "It's just warm, warm, it makes me feel like I'm relieving this like

negative energy just like, just like I can't describe it, it's just like a whew, like a

relief, calmness" (Photo 7).

Photo 6: Self-mutilation caused by puncturing abdomen with paperclips, and other metal objects. These participants required surgeries and an ostomy procedure.

Photo 7: Participant reported that the warmth of the blood calmed him during times of anger or rage.

A Means of Communicating Feelings, Needs, and Voices

Communication was another major theme that emerged from the interviews. Specifically, participants reported that self-mutilation provided a way for them to express their feelings, needs, or a desire to be heard by correctional staff.   Verbal communication of feelings such as psychological or emotional pain by male inmates is perceived/ described by them as a weakness.   Verbalization of emotions such as hurt, sadness, anger, or psychological/emotional pain is not often viewed as something that is acceptable by men in prison. Communication of feelings or emotions in prison is simply not well accepted, and adult males who are incarcerated are expected to suppress emotions, and to cope with their feelings internally, in silence.

Participants reported that being incarcerated isolated them from family members (including children), during difficult times, such as when family members died, divorce or

breakups with significant others occurred, or illness and/or other important events took place in their families' lives. Some participants reported *documenting their pain on their skin* as a means of communicating their loss or grief. Self-mutilation can be interpreted as a form of non- verbal communication of feelings or emotional pain. Emotions communicated through self-mutilation may include frustration, anger, fear, sadness, and/or loneliness. The following quotes are examples of how self-mutilation communicated feelings for study participants:

P: "I have a voice when I hurt myself", "I can scream my pain, scream that my wife died".

P: "I think it's because it's like you're laying your life down, blood is your life you know what I mean", "It's like you're laying your life, it's like an expression of misery you know what I mean, for me". "I think about the past, bad things that happened when I was little " "It's like the best way I can explain it, it's an expression of misery", "men don't talk, blood talks", "We're not ones for talking, we don't share, ha, ha. We're ones for hurt, you know" (Photo 8).

Photo 8: "*Expression of Misery*"

Self-mutilation was also reported by participants as a method used to communicate medical needs to correctional staff, a need for housing reassignment, a change in custody level, or simply a means of self-expression or being heard. Participants reported that when they were not able to access medical services in prison, or if they were unable to resolve medical issues such as physical pain, self-mutilation was a method of getting back into the medical clinic or community hospital to resolve medical issues, to obtain pain medication that was not made available in prison, or to communicate needs in the correctional system where they lived. If they repeatedly self-mutilated, they expected to eventually be heard by staff members who would actively listen to them. Self-mutilation gave the self- mutilator a voice when he felt he was not being heard in prison by staff otherwise, or when he was unable to communicate specific needs (Photo 9). These comments illustrate the finding:

> P: It did give me a voice. It got me to medical. It got me in front of a doctor who I
>
> wanted to see and then he just kind of turned away. Yeah, I remember just laying
>
> there and I really just wanted it to bleed and bleed and there was like no fear of

death, you know I was so angry so frustrated. There was a lot of blood and I

really felt, it, it was worth it. So finally, you know, the correctional officers

walked in and seen all this blood and broken windows and so they brought in

some people and some medical (Photo 10).

Photo 9: Scars from multiple incidents of head banging.

Photo 10: Self-mutilated in order to access medical services.

Self-mutilation as a Form of Addiction

The third prominent theme that emerged from the data involved self-mutilation as a form of addiction, where mutilators experienced a "rush" similar to a "drug rush". There were participants that compared the feeling of a self-mutilating "rush" to heroin use. Participants reported that the cutting of the skin was exhilarating, and once they saw or felt the warmth of the blood they reached a state of euphoria, and then calmness. This behavior is generally repetitive and reported to be a common practice during periods of isolation and non-structured time, and provides an escape from the boredom of their daily routine. It is a form of self-stimulation in an environment that is monotonous and not mentally stimulating or meaningful. Participants reported that they cut less frequently or not at all when they were engaged in meaningful activities such as educational classes or employment tasks.

The addictive quality to self-mutilation generally developed over time and could result in repeated mutilations. Craving or obsessive thoughts concerning the self-mutilation were also reported to be triggered by someone else self-mutilating. For these men, there was an excitement reported that began with hearing the correctional staff run to the aid of someone who self-mutilated, the sound of people yelling or expressing excitement, seeing or smelling the blood, and having the self-mutilated inmate rushed to medical services. This finding suggests that self-mutilation can be a contagious behavior among adult males who self-mutilate in a correctional setting. Some comments on this were as follows:

> P: "I get really quiet. It's hard to wake up in the morning and just sit there and think about hurting myself. All of a sudden, I mean, this is what they want to do. So I just wait until I know I won't be disturbed by a passing cop. I'll probably put on some music and make the cut and start going even more. And then it's like when

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you cut you see that blood you just feel, I, I just get a rush just get excited. By

seeing it, is it the red do you think, or the warmth of it, or I don't know, it's hard

to explain, I just get a rush, It's like doing drugs" It's like a piece of heroin fix.

It's like a rush, it's, it's, the blood goes out, you look at it, you look and the

bloods just going out and it's, it's like that you know, like in a trance and you feel

blood (Photo 11).

P: "You know when that happens, is that, that's one thing, that I've cut but I've never

been around so many cutters like here, you know? During the night shift ok, now,

wouldn't even think of it, but all of a sudden I hear them all running in, and then

they get down and they pull them out and they cut and there's blood all over, oh

man, crave it, uhh, uhh, I'll crave it bad. But yeah, you do crave it, when you see

it, you crave it, I mean bad, there's been times that I've cut myself" (Photo 12) .

**Photo 11: Multiple lacerations with razors, or other sharp objects in order to
experience a "rush".**

Photo 12: Hundreds of superficial to moderate lacerations bilaterally on forearms.

In addition to the major themes, a minor motivational theme that was most commonly identified in the initial round of theme identification was *dissociation and warranted further discussion.* Participants who reported dissociating prior to and during self-mutilation reported feeling that they felt unreal, numb, or as if their situation was not real. During the interviews, the participants who experienced dissociation during self-mutilation reported experiencing childhood trauma such as sexual abuse, physical abuse, or other traumatic events, such as family members killed in their presence. Anniversaries of events, contact with family members, or feelings of abandonment can be overwhelming and trigger self-mutilation in this population. After self-mutilating, the men reported either feeling "real" once they felt pain or becoming "aware of their surroundings several minutes after the incident when they heard other people around them".

     P: I just usually bite. Like bite, I'll find myself, like (short pause) it's weird.

        Sometimes there's a cloud over me. There's a cloud and I am not sure what

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happens. And I just sometimes feel like it's not real. Nothing's real. Nothing is real (Photo13).

P: You know, there's been times when I went like into a trance and when I come out of my trance, there's blood everywhere. I'm lookin down at my arms and I'm like god damn, not again. You know what I mean? So and, its, and I don't understand it. I honestly don't. I remember I, as soon as I heard the words "it's over" everything kinda like blacked out, like everything snapped out and the next thing I remember I was on my toilet in my room and my arm was bleeding and I didn't remember nothing and I had a razor blade in my hand and I was kinda sitting there and I remember I looked down and there was blood on my hands and there was blood the floor a little bit. I remember I looked down and just went "oh no not again" and I said "what the fuck is wrong with me oh my god". And, I started panicking cause I was like it was bleeding a lot, and I thought I cut something severe (Photo 14).

Photo 13: Participant pulls down collar to expose a self-mutilating bite scar on his chest during a time when he felt "nothing was real".

Photo 14: Self-mutilations during reported "blackouts"

Digital Photo Results

All 42 adult males in the study agreed to have their scars or wounds from self-mutilation digitally photographed. However, 3 of the 42 inmates did not have their photos taken due to the risk of possible identification, secondary to widely recognized and numerous tattoos. The photographs were used in the ethnographic interviews to elicit a verbal response; however, 3 participants had interviews conducted without the photograph displayed on the computer screen during the interview. The researcher noted that the interviews without photo elicitation were not as abundant in verbal data and took longer to conduct. This may have been because the photo elicited an immediate raw response, a moment of reflexivity, and then a recall of past events, yielding rich data quickly in the interview (Sullivan, 2010). With the aid and visual cue of the photo, an informant was also able to immediately tell his story. Reactions by participants to their photos resulted in non-verbal data (e.g., facial expressions, body posture/language) that ranged from disgust to surprise. There were 78 digital photos that were examined for some type of self-mutilation,

the locations of self-mutilation, and general size and description. A quantifiable/content

analysis style summary of these photographic findings is sometimes useful (Bell, 2001), and

it appears in more detail in Appendix 6. The two most diverse types of self-mutilation

photographed were cutting and burning. Cutting locations ranged from the forearm to the

calf. Burning locations included the upper arms, forearms, and leg (Table 12). Not all types

of self-mutilation were photographed. It must be noted that not all self-mutilation types

could be photographed for this study, such as ingestion of caustic liquids, the swallowing of

razor blades, insertion of mental objects in the urethra or cutting in the area of genitalia.

Table 12. *Cutting and Burning, Location, & Size*

Type of Self-mutilation Photographed	Location	Size of Scar or Wound
Cutting	Forearm (n= 26)	1 to 8 inches
	Antecubital Space (n= 16)	1/2 to 1 inch
	Thigh (n= 6)	2 to 3 inches
	Wrist (n= 5)	1/2 to 2 inches
	Neck (n= 3)	2 to 12 inches
	Chest (n=2)	2 to 4 inches
	Knee (n=2)	2 to 3 inches
	Ankle (n=1)	2 inches
	Abdomen (n=1)	4 inches
	Calf (n=1)	3 inches
Burning	Upper arms (n= 5) (located in cutting area)	1/2 to 1 inch in diameter
	Forearms (n=8) (located in cutting area)	1/2 to 1 inch in diameter
	Leg (n= 2)	1/2 to 1 inch in diameter

Participant Reaction to Photos

In each case, after the digital photo was taken, the memory card was placed in the laptop by the researcher for immediate viewing by the participant, at the beginning of the interview. The researcher said nothing at the beginning of the interview, but simply positioned the screen so the participant could view the laptop screen and image of his scars or wounds. It is likely that this was the first vision of the wound he had from the outside in, as opposed to the original inside-out perspective. Noted and documented were verbal and non-verbal responses such as long sighs, holding breath, long exhales, nervous giggles, blowing air out between their pursed lips as if to whistle, and moaning. Responses varied from surprise, as if they were viewing their scars for the first time, to disgust, shame, tearfulness, and stunned shock. It was interesting to note that several participants did not consciously know the extent of their self-mutilation until they saw the numerous scars on their bodies, and until they viewed them on the laptop screen. The digital photos provided a view or vantage point about the extent to which their self-mutilation had impacted their bodies and lives.

During the interview there were participants who stared intermittently at the photos of their scars on the laptop during the entire conversation, using the photos to recall events, and two participants were not able to view the photos without becoming tearful. The researcher noted that while they stared at the photo on the laptop they were able to recall events that lead to self-mutilation, remembering long-forgotten information about the self-mutilation. The three participants that did not have photos taken due to possible identification risk required more prompting and questioning in order to elicit information, and the interview took longer to conduct. Information provided from those three interviews was not as rich,

detailed, and free flowing as for those who had photos taken of scars or wounds. Field notes and researcher reflections were also data in this ethnography, and the following were her notes on mutilators' responses to digital photos:

R: Seemed to be surprised by his photo and rolled his head, and said "I can't believe that is me"!. Tearful at pictures and stated it looks different "like looking inside". "I can't believe I do that to myself", "it really is disgusting you know, my mom taught me better".

R: Another participant when he saw the photo of his scars took a long breath and said "wow", "is that how it looks?", "I never really saw them like that". He took another long breath and said "wow". He took another long breath looked at the picture like it was the first time he had seen it. Stared at his photo and nodded his head and said "I remember."

Description and Interpretation of Self-mutilation

The primary locations on the body for cutting or lacerations were on the forearms and antecubital spaces where areas of multiple self-mutilations and disfiguring occurred. Many of the scars and wounds in the forearms were chaotic and irregular in appearance, ranged from superficial to deep and severe, and varied from hairline to wide scars (Photo 15). There were scars from prior (cutting) mutilations that looked as though an animal with teeth or claws had shredded the skin. These wounds usually started off wide and deep and then tapered to a thin tail at the end. The resultant scars (forearms and antecubital spaces) were committed by the men who reported difficulty with modulating emotions such as rage, anger and frustration (Photo 16). Nine of the participants had firm, knotty, keloid scar formations

in the forearm and antecubital space. Scars ranged in size from 1/2 inch to 8 inches in length, and were alternately horizontal, vertical, and diagonal, in relation to the plane of the arm.

Photo 15: Wide scarring due to cutting, with no indication of medical suturing or stapling.

Photo 16: Keloid scarring in the antecubital space as well as thick, chaotic scars that were disfiguring to this area of the arm.

All participants who had their heads photographed due to scars from incidents of self-mutilation had multiple scarring from lacerations obtained during head banging. The scars were located primarily in the frontal lobe region, with no reports of head banging in the back of the head. These participants reported a long history of head banging that began early in life and continued into adulthood. They also reported multiple incidents where they lost consciousness after banging their heads. The head banging was reported to result from frustration, anger at self or others, and isolation (Photo 17).

Photo 17: Scars from lacerations to the head from banging against cement walls.

The most devastating or severely disfiguring self-mutilations were from participants who had multiple incidents of self-mutilation by either inserting mental objects in their abdomens or cutting their abdomens (Photo 17). These participants all required emergency surgery outside of prison, and it left them with an ostomy or other complications. These participants reported that they do not feel physical pain, but instead are unable to control intense feelings of fear or rage; the self-mutilation diminished these feelings. Both

participants reported that they no longer wanted to self-mutilate, but did not know if they could control this behavior when they begin to feel overwhelmed by something.

Photo 18: Insertion of metal objects into the abdomen and swallowing razor blades lead to emergency surgery.

Interpretation of Visual /Photographic Data

Qualitative and mixed methods studies increasingly use visual data, including photography, to more completely describe, explain, and understand the pallet of human experience. This study is perhaps one of the first to use digital photography to elicit interviews in the prison population of self-mutilating men, and the researcher believes it was effective and valuable. She proposes that the dramatic photographs accomplished the following in this inquiry:

- Enriched and informed the inter-data dynamics and contexts surrounding self-mutilation (David, 2007);

- Provided an opportunity to directly and systematically observe part of the culture and social life experienced by incarcerated male self-mutilators (Wagner, 2007);

- Adapted creative arts (photography) in an engaged, holistic effort to link theory and practice for a complex population (Leavy, 2009).

Sullivan (2010) explained the value and merit of such methods this way: "If a primary purpose of research is to increase awareness of ourselves and the world we live in, then it seems plausible to argue that understanding is a viable outcome of inquiry. The possibility of gaining new understanding involves investigating issues that have personal and public relevance. Research of this kind is imaginative, systematic, and inclusive and includes drawing on all kinds of knowledge, experience, and reasoning. If a goal of any inquiry is to be able to act on the knowledge gained, then it is reasonable to expect that understanding is as significant as explanation as an outcome of research. If this is accepted, then this quest for understanding means individual and social transformation is a worthy human enterprise, for to *know* means to be able to think and act and to thereby change things" (p. 97)

Upon scrutiny and reflection for all qualitative data (interviews and digital photos), evidence suggests that adult males who self-mutilate in a correctional setting (as opposed to other settings) are severe and disfiguring mutilators. In addressing specific Aim # 3 (exploring the meaning self-mutilation possesses for adult males in a correctional setting), the act of self-mutilation serves a specific purpose, no matter how maladaptive it may appear to others. Self-mutilation in a correctional setting may serve various motives and have different meanings at any given time to the self-mutilator. For example, it can be a means of communicating with other inmates or correctional officers Self-mutilation can serve the intent to show other inmates that they are strong i.e. "a man" who can physically handle pain. Paradoxically, self-mutilation by an inmate can also serve as a strategy to avoid being

harmed by others. If the wounds are severe enough, they may be moved to solitary, or a medical unit where they feel safe.

Most often, self-mutilation has a more personal purpose. It can be a means of self-regulating intense or unwanted emotions, represent self-expression, or produce euphoric or calming effects, similar to that with mind altering drugs that modulate their mood or emotions. However, while this act may serve to self-regulate the individual, it cannot always be concealed. If there are outward manifestations of the self-harm, they are noticed in the prison system, where privacy is limited. If identified as or labeled a self-mutilator, the consequences for the affected individual can yield negative consequences such as physical or verbal assaults, social stigma, or even death.

For adult male inmates who do not self-mutilate, self-mutilation has another meaning in the prison culture that is devaluing, since non-mutilators view the self-mutilator as psychologically and physiologically "weak". This leaves the self-mutilator vulnerable to possible exploitation or victimization. Self-mutilation in a correctional setting is generally viewed or categorized by others as "attention-seeking behavior", or "manipulative behavior". This has contributed to stigmatization and stereotyping of the self-mutilators, who referred to themselves in this study as *human trash*. Many in this study reported self-mutilating secretively in order to avoid disciplinary action specifically related to mutilating behavior.

Initially the researcher thought that a sample of 42 men would be difficult to obtain, since there had never been a study conducted on self-mutilation in the New Mexico Correctional Department. Yet toward the middle of the study, adult males began to volunteer for the study. They had heard from other inmates about the study and asked mental health services for information on participation. This suggests possible interest in the research, or

prisoner awareness that someone wondered why self-mutilation occurs daily in the prison system. At the end of the study, when the original sample goal of 42 was met, there were 27 potential candidates waiting who were not studied. This only attests to how little is known about the prevalence, nature and motivation surrounding self-mutilation among adult males in correctional settings.

Comparison with Other Qualitative Studies of Self-Mutilation

There is a paucity of information in the area of qualitative research and adult males who self-mutilate who are incarcerated. Qualitative research conducted in the area of self-mutilation has used various terms to describe this behavior, including self-harm, self-injurious behavior, and self-injury. These terms and their definitions have included the phenomenon of suicide. The lack of a common a definition has created definitional inconsistencies that have weakened the efforts to more thoroughly understand the phenomenon of self-mutilation.   There are very few qualitative studies in the area of self-mutilation and most of them have been conducted on women or adolescent females in a community setting (Table 13). There are very few qualitative studies that have included male participants in self-mutilation research. The existing male-focused studies have been conducted on male adolescents or a very small number of adult male subjects (6 or fewer participants) (Adler & Adler, 2007; Taylor, 2003b).

Table 13. *Overview of Qualitative Research in the Area of Self-mutilation*

Authorship & Year of Publication	Sample Size	% Male	Setting	Terminology Used
Abrahms and Gordon (2003)	6	0%	Community	Self-Harm
Adler and Adler (2007: 2005)	80	19%	Community	Self-Mutilation
Alexander and Clare (2004)	16	0%	Community	Self-Injury
Harris (2000)	6	0%	Community	Self-Harm
Hodgson (2004)	16	0%	Community	Self-Injury
Howerton et al (2010)	35	100%	Prison	Suicide/Self-Harm
Schoppman et al. (2007)	6	0%	Community	Self-Injurious Behavior
Schroer et al (2001)	6	100%	In Custody	Self-Inflicted Injury
Sinclair and Green (2005)	20	40% (Adolescent)	Community	Self-Harm
Soloman and Farand (1996)	4	0%	Community	Self-Injury
Taylor (2003)b	5	100%	Community	Self-Harm

There were two qualitative studies that took into account the male perspective on self-mutilation, done by Taylor (2003) and Schroer, Sperhake, Schultz, and Tsokos (2001). Taylor (2003) conducted a qualitative study on adult males (n= 5) who self-mutilate in order to explore the perspectives of these men. The themes identified by Taylor included the following intentions: escape emotional pain, a massive explosion of pain, relieve frustration, self-pity, self-hatred, self-loathing, anger, and a need to be punished. This study suggests that self-mutilation serves as a coping mechanism.

Some of the themes identified in the Taylor study were also themes identified in the current study. For example, the theme of *escape emotional pain* and *relieve frustrations* is similar to the theme identified in this study of **mood/emotional dysregulation**. Mood/emotional dysregulation in this study was defined as having difficulty regulating or controlling one's emotional responses and behavior. In many of the interviews in this study, participants reported that self-mutilation was used to control or calm unwanted emotions or control emotional or psychological pain. One of the participants in the Taylor (2003) study reported self-mutilating in order to "get an adrenaline rush that last for 3 days". In this study, the third prominent theme that emerged from the data involved self-mutilation as a form of *addiction*, where mutilators experienced a "rush" similar to a "drug rush". While the Taylor (2003) study is a relatively small study (n=5), it identified some of the same themes that were found in this study.

Another study by Schroer, Sperhake, Schultz, and Tsokos (2001) entitled, *Self-mutilation in men: Injury pattern and motivation*, looked at self-mutilation in men. This study consisted of six males between the ages of 15 and 46 where the younger age predominated. In four cases, the typical injury patterns of self-infliction were superficial wounds and in two cases there were atypical injuries consisting of deep cuts and massive signs of strangulation (one case of strangulation was an autoerotic accident that was disguised as self-mutilation). In most cases the underlying motive was to gain affection.

In comparison to the work by Schroer et al. (2001), they found injury patterns superficial in four cases and 2 cases were deep cuts. In comparison, the current study found that cutting was the predominant type of self-mutilation and the ranged from superficial to deep and severe in nature. This study also reported that in most cases, the underlying

motivation was to gain affection. This theme was not identified as a major or minor theme in the current study.

Qualitative studies in self-mutilation among adult males who are incarcerated are inadequate and much needed in order to provide a greater understanding of this phenomenon among men and those in the prison population. Publications on self-mutilation in a correctional setting are generally anecdotal, descriptive, and based on case reports. There is a need for a universal definition regarding the phenomenon of self-mutilation that does not include suicide. Qualitative research that incorporates text and visual data to explore the phenomenon self-mutilation among adult males is lacking. This study enriched awareness and insight using data collected from ethnographic interviews and visual data (a form of visual arts knowing), incorporating prisoners' perspectives and possibly adding new knowledge and understanding (Sullivan, 2010). Additionally, it represents an example of much-needed practice-based quantitative-qualitative evidence (needed to develop specific interventions) recently described by Leeman and Sandelowski (2012).

Chapter VI

Integration and Synthesis of Data

Introduction

The purpose of this chapter is to describe the *process* and *outcomes* for the synthesis

and integration of the quantitative and qualitative findings. ***Process*** is defined as steps taken

to combine/merge the two sets of findings. These steps will be described in terms of

reviewing, critically reflecting, comparing and contrasting specific points, critiquing

strategies to address data management/analysis (to support validity of mixed methods

approach), and developing final key points/ideas that represent a separate, and

complementary analysis. The *Process* was adapted from the general guidelines and

recommendations of Creswell and Plano Clark (2011). *Reviewing* is defined as

reconsidering, re-examining the data and the findings carefully, making sure no omissions,

alterations, or oversight occurred in their management or analysis. *Critical reflection* is

similar to Gadamer's (1989) "philosophical self-analysis" (p. 236) and Polanyi's (1983)

advice that "It is not by looking at things, but by dwelling in them that we understand

their...meaning" (p. 18). This is described further by Polkinghorne (2004) as openness to

multiple/problematic interpretations and meanings of data/findings. *Critical reflection* has

been defined by Lincoln (2002) as "critical subjectivity....the ability to enter an altered state

of consciousness or 'high-quality awareness' for the purpose of understanding with great

discrimination the subtle differences....Reflexivity enables the researcher [scholar] to

uncover dialectic relationships, array and discuss contradictions....and move toward action"

(p. 337). Bolton (2005) argued that *critical reflection* holds the internal mandates of authority

and responsibility for the analysis and outcomes, willingness to reconsider any alternative or

contested propositions that emerge, and a willingness to stay with "uncertainty,

unpredictability, and questioning" (p. 2). Consistent with Creswell and Plano Clark (2011),

and prior to examining the *outcome*, it is important to identify the underlying principles and

thinking framework that descriptively guided the *process* and led to these collective findings.

Thus comparing and contrasting specific points from the merged data produce separate or

similar findings resulting in a final analysis of the mixed methodology. A critique of the

strategies for management of the data and analysis, provide a strong framework that validate

and support a mixed method approach.

Guiding Principles for Synthesis/Integration

Two key principles provided the descriptive/exploratory foundation for this synthesis

and integration: *wholeness* and *complexity*. *Wholeness* is generally thought of as the

completeness, repletion, unity, harmony or totality of something—in this case, of the

methods (quantitative, qualitative) for data generation, analysis and interpretation. As such,

wholeness is a desirable state if we are to better understand the answers to the research

questions and the men who made up the sample for the study. Bohm (1980) argued that the

opposite of wholeness is *fragmentation*, something that has influenced our science, culture,

economics, politics and social life the world over. In his interpretation of philosophical

differences in Eastern (interpreted by him as wholeness, immeasurable) and Western

(interpreted by him as fragmented, measurable) thought, Bohm proposed that the world (and

by extension, our processes for measuring/understanding) held both measurable

(quantitative) and immeasurable (qualitative) components. As he put it, "Original and

creative insight within the whole field of measure *is* the action of the immeasurable. The

measurable and the immeasurable are then in harmony, and indeed, one sees that they are but

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different ways of considering the one and undivided whole" (pp. 25-26). Such perspective describes the value of the investigator's blended approach to studying the incarcerated, self-mutilating informants.

By using this collective array of methods, overall knowledge, insight, and understanding were enriched and suggestions for future interventions could be more informed. In Polanyi's (1983) words, "to some degree, we shape all knowledge in the way we know it" (p.77). In this study, we allowed both the data as well as the patient's voice to form our conclusions.

Besides a focus on the harmony of methods, *wholeness* also refers to the idea that individuals (or participants) possess biophysical, psychological/spiritual, cognitive and contextual dimensions. If we agree that *wholeness and harmony* of all components (whether of methods or human dimensions) are desirable, then the participants in this study were examples of people *not* whole, harmonious, or complete, for a variety of reasons. They might be described as broken people, with wounds to the body, mind and spirit of their being. We see only the physical scars; why and how they were broken is in some sense at the root of their self-mutilation but are only things participants can tell us about. Are their self-inflicted wounds the inevitable manifestation of ruptures to self/self-concept earlier in life? Are they an antecedent or an accompaniment to poor choices that led to the commission of crimes for which they are now imprisoned? Is self-mutilation a strategy for managing or relieving the pain of earlier distress to body, mind and/or spirit? Is self-mutilation ongoing evidence that their "intactness" is permanently broken, frequently damaged by repeated mutilation, and bound to continue? Efforts to identify, visualize (with photo-elicitation), describe, analyze

and interpret the wounds represent an examination of human wholeness and what can happen to one's wholeness in the context of self-mutilation.

Waldrop (1992) and other complexity theorists hold yet another view on *wholeness*. Contending that nonscientists often regard science as working by deduction, they note that in fact "it works mainly by metaphor" (p. 327), with recurrent, partially repeatable patterns at the level of the cell, the organism [human], system, community or organization. Examples of metaphors for *wholeness* might be (1) molecules: each molecule has two or more atoms, yet the individual atoms do not operate as the whole molecule does once the atoms are bonded in some meaningful way; (2) a recipe for a favorite casserole: a number of individual ingredients comprise the content of the full recipe, yet no single ingredient (meats, vegetables, herbs, oils, pasta, etc.) can be said to be the whole recipe or constitute a complete casserole. Metaphorically speaking, for this study, *wholeness of method* was achieved by the blending of quantitative and qualitative techniques, while *wholeness of the individual participants* was examined in terms of their responses to the questionnaires, interviews, and pictures of their wounds.

The other key concept or principle underlying the synthesis and integration of study findings is *complexity*. Complexity generally holds that no real duality exists between humans and nature in an ever-changing/adapting and nonlinear world (Waldrop, 1992). Mitchell (2009) defined a complex system as "a system in which large networks of components with no central control and simple rules of operation give rise to complex collective behavior, sophisticated information processing, and adaptation via learning or evolution…a system that exhibits nontrivial emergent and self-organizing behaviors" (p. 13). For this study, the complex system was the prison system in which the self-mutilating

informants live. As a subset of the total prison population, they represented a unique case of behavior and actions within that system. The various sociocultural, economic, and geographic contexts of these men were extremely *complex* and varied, made more complicated by the prison setting. The array of self-harming techniques, patterns of injury and repetition, escalation of mutilation, and now individual reflections on the wounds, the patterns, and the meanings constitute *complex* collective behavior/perceptions, as well as an overall picture of these men. Some types of information processing and communication constantly circulate among the mutilators, as well as between them and other members of the prison system (e.g., other inmates, prison staff, therapists/providers, etc.). Their patterns of behavior, response, and action (mutilation) adapt to the specific environments in which they reside, to new/additional regulations and rules, to increasing numbers of prisoners, to shifts within their own minds and bodies that come with aging, injury, and health challenges, and to external factors outside of their control from the penal system (e.g., budget reductions, new rules or policies). In Mitchell's words, "In complex systems, many simple parts are irreducibly entwined, and the field of complexity is itself an entwining of many different fields" (p. 4). Following explication of *process* and its underlying framework, outcome and exemplars will be examined.

Outcome and Exemplars

      Outcome is defined as the *set of final key points and ideas* from the process described above. The outcome represents what Sullivan (2010) called a form of complexity, "the study of macroscopic collections of….units that are endowed with the potential to evolve over time. Their interactions lead to collective phenomena" [what we call final points/ideas] (p.115). The collective or mixed methods approach examined the extent of

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convergence/divergence between the quantitative and qualitative results and suggested final *collective ideas* (Creswell & Plano Clark, 2011). The researcher's vision of this merged design is shown in Table 14.

Table 14. *Integration of the Quantitative and Qualitative Results*

Type of Findings/Results	Contribution to Knowledge of Self-Mutilators
Quantitative	Defining, explaining, clarifying specific factors
Qualitative	Exploring, interpreting, discussing with participants
Integrated/Synthesized	More comprehensive understanding/insight; greater capacity to effectively intervene

A key proposition was that the integration and synthesis of both sets of findings yielded an additional iteration of insight, understanding, and interpretation for the research questions, beyond the parallel work of finding meaning in the quantitative, then the qualitative results. A second proposition was that the whole [i.e., the set of integrated findings] was more than the sum of its components [quantitative/qualitative], just as a van Gogh painting is much more than a collection of bold brushstrokes (Sullivan, 2010) or a finished braid is more than three individual strands of hair. Why and how this is so, probably resides in the mind of the ones interpreting, who may internally recognize a bigger "something" that opens deeper levels of knowing, supplementary dimensions, comprehension, and potential applicability than a series of individual, isolated observations and/or measurements. Both the quantitative and qualitative findings strengthened each other in the process of drawing conclusions, giving increased overall validity to the final set of

results. The integration and synthesis of those sets of findings yielded an additional level of

insight, understanding, and interpretation than could not be achieved by a single

methodology.

Procedures began with the merging, review and display of the quantitative and

qualitative results side-by-side, following the steps in the *process* previously explained.

Following the Creswell/Plano Clark (2011) guidelines, strategies to address potential

validation issues in data collection, analysis, and interpretation were addressed to minimize

threats to the merged data. These authors defined validity in mixed methods designs as

"employing strategies that address potential issues in data collection, data analysis, and the

interpretations that might compromise the merging or connecting of the quantitative and

qualitative strands of the study and conclusions drawn from the combination" (p. 239). For

instance, both quantitative and qualitative *data collection* had the same sample, i.e. 42

participants. The instruments used (explained in Chapter 3) demonstrated satisfactory

internal reliability and validity. Qualitatively, systematic use of multiple data sources and

techniques, as well as frequent debriefing with a qualitative expert, strengthened the quality

and rigor of the process. *Data analysis* depended on the consistency, transparency, and

auditability of data management, interpretation, at all phases of research-related activity.

Exemplars: Comparison and Contrast of Findings

As suggested by Creswell and Plano Clark (2011) a summary table was used to merge

data and present the results. The quantitative results appear first, followed by the qualitative

results in the form of quotes (in italics) and or digital photos (Table 15) for the major types of

mutilation. A comment follows the synthesized concept describing how the qualitative

results were similar or different.

Table 15. *Comparison and Contrasting of Quantitative and Qualitative Results*

Quantitative Findings	Qualitative Findings
Cutting (92%), *was* the most predominant type of self-mutilation N= 39, with a total of 2746 occurrences over their lifetime. One individual engaged in 700 episodes of cutting. Thirty eight of these individuals who endorsed cutting also indicated they required medical treatment or hospitalization. The average amount of time engaging in this type of self-mutilation was 13 years. The frequency with which this was done, was positively correlated (r=.317, p-= <0.05) with the motivational factor self- stimulation (sense of excitement, stimulation or release tension that feels like a sexual release or drug high). The predominant theme identified was mood modulation. The theme as a Form of Addiction was also identified with the self-mutilating behavior of cutting.	Subject # 2: "*The blood transfers the pain and anger; the pain goes out with the blood flow;* I *stop when I start feeling the blood pouring off, I don't know it makes me happy;* "It's just warm, warm, it makes me feel like I'm relieving this like negative energy just like, just like I can't describe it, it's just like a whew, like a relief, calmness" (Photo 7). Photo 7: Participant reported that the warmth of the blood was calming during times of anger or rage.

Subject # 36: "*And then it's like when you cut you see that blood you just feel, I, I just get a rush just get excited. By seeing it, is it the red do you think, or the warmth of it, or I don't know, it's hard to explain, I just get a rush, It's like doing drugs" It's like a piece of heroin fix. It's like a rush, it's, it's, the blood goes out, you look at it, you look and the bloods just going out and it's, it's like that you know, like in a trance and you feel blood* (Photo 11)

Photo 11: Multiple lacerations with razors, or other sharp

objects in order to experience a "rush".

The *merged data* revealed that in self-mutilating behavior, cutting is the most predominant practice, and was associated with **mood modulation**, or an attempt to control or calm unwanted emotions or control emotional or psychological pain. The frequency of "cutting", was also associated with the motivational factor, **self-stimulating** (i.e. sense of exhilaration, or stimulation that is exhilarating, like a drug high, or sexual release) and was similar to the qualitative theme of self-mutilation as a form of addiction. This form of "addiction" was reported as experiencing a "rush" similar to a "drug rush".

Quantitative Findings	Qualitative Findings
The second predominant type of self-mutilation was *head banging* in 33 (78.6%) subjects, with individuals reporting engaging in head banging approximately 1054 times in their life . The average amount of time engaging in this type of self-mutilation was 8 years. Thirty three percent reported that they engaged in head banging that required medical treatment or hospitalization. This type of self-mutilation was associated (r= .455, p= <.001) with the motivational factor **mood modulation**.	Subject # 12: "*It did give me a voice. It got me to medical. It got me to medical. It got me in front of a doctor who I wanted to see and then he just kind of turned away. Yeah, I remember just laying there and I really just wanted it to bleed and bleed and there was like no fear of death, you know I was so anger so frustrated. There was a lot of blood and I really felt, it, it was worth it. So finally, you know, the correctional officers walked in and seen all this blood and broken windows and so they brought in some people and some medical*". (Photo 9).

Photo 9: Scars from multiple incidents of head banging,

Subject # 32: *"When I feel really mad or frustrated I bang my head on the wall, it helps the bad feelings leave me, I feel better afterwards, it helps to calm me."* (Photo17).

Photo 17: Scars from lacerations to the head from banging against cement walls.

Head banging as a self- mutilating behavior was also identified as a means of controlling the environment or giving the individual a voice to express negative feelings and controlling the environment in order to get their needs met. Qualitative interviews of those who engaged in head banging, reported this behavior to "release anger, frustration, and express feelings to others".

Digital Photos were taken of scars from three individuals, due to head banging. Photos taken were located in the frontal region of the head and ranged from 1/2 inch to 8 inches.

The *merged data* revealed that in self-mutilating behavior, banging the head is the second most predominant practice, and was associated with **mood modulation** (r= .455, p= < 0.001), or an attempt to control or calm unwanted emotions or control emotional or psychological pain which is similar to the qualitative theme mood/ emotional dysregulation.

Quantitative Findings	Qualitative Findings
The third most predominant type of self-mutilation (N=30, 71.4%) was *struck self with a sharp object*. Individuals reported sticking themself with sharp object, a total of 1830 times over their lifetime. One individual reported engaging in this behavior 500 times. The average amount of time engaging in this type of self-mutilation was 13 years. Approximately 38% of individuals, who endorsed sticking themselves with a sharp object, reported requiring medical treatment or hospitalization. The duration of engaging in this behavior was positively associated (r= .456, p= <0.05) with age.	Subject # 1 "*Well I got angry and I just stabbed myself with the paperclip, sharpened and hit my intestine and I didn't know until I got to the hospital cuz they had to rush me into surgery cuz I punctured my intestine. I feel release from tension. I got raped, I cut and stabbed myself with a paperclip, big ones. I felt a release from the tension and it got me away from the predators.*" (Photo 6) Photo 6: Self-mutilation caused by puncturing abdomen with paperclips, and other metal objects.

The digital photo showed that the stuck sharp objects in the abdomen which were chaotic, disfiguring, and required emergency surgery to remove metal objects, resulting in the participant requiring an ostomy. This type of self-mutilation is not a onetime event and was repeated multiple times in this particular individual (photo 6).

Subject # 1: *"I feel like I am on an emotional rollercoaster and can't get off so I cut myself, Well I got angry and I just stabbed myself with the paperclip sharpened punctured my intestine. I feel better after wards you know calm."* (Photo 6).

The only motivational factor correlating with this type of self-mutilation was the qualitative theme, **mood dysregulation**. Mood dysregulation correlated with the quantitative motivational factor, **mood modulation.** Other motivational factors identified by individuals who participated in the behavior, stuck with a sharp object, were to control their environment by engaging in an extreme type of self-mutilation that would help them escape predators without having to avoid social stigma and avoid possible death due to "snitching" on other inmates. The *merged data* revealed that among the self- mutilating behaviors, stuck self with objects

was the third prominent type of self-mutilation requiring 38% of those who endorsed this type of mutilation to require medical treatment and emergency surgery. This type of behavior was not only disfiguring but life threatening, resulting in temporary or permanent physical changes to the body. Motivational factors identified for this type of self-mutilation was mood dysregulation. Other qualitative themes that were <u>not</u> identified quantitatively were; to communicate needs, and control the environment (e.g. being moved to a safer environment away from other predators). The meaning of engaging in self-mutilation can be derived from identified motivational factors primarily in the area of mood modulation (changing from one mood to another) and the motivational factor self-stimulation (experiencing a sense of excitement or stimulation).

Comments: Self-mutilating behavior that was labeled as "attention-seeking" or "manipulative " has a specific meaning to the self-mutilator, such as a decrease in their social status or position within the prison culture. There is a disconnect between corrections facility personnel stating "cutters" self-mutilate for "attention-seeking" or "manipulation" versus the data shows many other reasons other than "attention-seeking" or "manipulation". It can be viewed as a personal weakness that devalues the adult male who self-mutilates and place them in a position where they are exploited or harmed or, paradoxically, have to self-mutilate to avoid or escape dangerous situations.

Quantitative Findings	Qualitative Findings
	Subject # 16 : *Yeah, those guys (correctional staff) are putting me in a fucked up situation you know and those guys think I'm playing, I just wanna do my time and go home but those guys wanna fuck with me and wanna fuck with my emotions you know, excuse my language, but I told them we'll see, so I "cut". Cause I've been put in situations where I feel angry or afraid and the need to do that to myself, you know guards harassing me, pestering me, um putting me in situations where I didn't feel safe. They were going to let me out and a prison gang was gonna get me, they gonna let me out so I cut my throat and my wrists. They were gonna let me out something was gonna happen here so I got the razor and in front of him (correctional officer) I cut my throat and cut both my wrists, I had to roll the dice ."(Photo 5).*

Photo 5. Cut throat and wrist with a razor blade to avoid a possible

altercation with another inmate.

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Comments: The meaning behind severe cutting of the throat or wrist is a self-mutilating behavior that was <u>not</u> the same quantitatively and qualitatively. Quantitatively, the researcher asked specific questions such as motivational factors. Motivational factors most identified were few and limited to mood modulation and self-stimulation. Regulating mood and experiencing self-stimulation such as experienced with a drug were also noted in the qualitative findings, but other meanings that were revealed through qualitative inquiry included; (a) *labeling* of the self- mutilator by other inmates and correctional staff, resulting in social stigma (b) perception of mutilator as a weak individual, (c) devaluing the mutilator, and (d) communicating needs/giving a voice to men who felt disenfranchised.

Final Integration/ Synthesis of Findings Results

The use of a mixed method (convergent) design provided a methodology in which the phenomenon of self-mutilation among incarcerated adult males could be more completely explored and better understood. The merging of the quantitative and qualitative strands of data (as termed by Creswell & Plano- Clark, 2011) provided some results that were similar and others that were quite different. The final results are as follows:

The study sample consisted of 42 adult males, ages 20 to 55 years, incarcerated in the New Mexico Department of Corrections Level I to III (medium custody) facilities. The majority of participants were Non-Hispanic/ Latino (59.4%, N= 25) and Hispanic (40.5%, n= 17). The age of onset of self-mutilation ranged from ages 5 to 44 years of age. The greatest percentage of subjects reported that the onset of self-mutilation occurred by age 10, with the predominant age range for the onset of self-mutilation between 11 and 16 years of age. The majority of participants began engaging in all types of self-mutilation by age 26. The three predominant types of self-mutilation endorsed were **cutting** (92.9%), **head banging** (78.6%), and **stuck self with a sharp object** (71.4%). The most repeated types of self-mutilation were **cutting** (2,646), **stuck self with a sharp object** (1,830), and **head banging** (1,054) over their lifetime. The types of self-mutilation that required medical attention or hospitalization were **cutting** (73.8%, N= 31), **preventing wounds from healing** (40.5%, N= 17), behaviors involving ingesting a foreign object or chemical (40.5% and n=17), **stuck themselves with sharp objects** (33.7, N= 15), and **banged head** (33.3%, N= 14). Merged data noted the following motivational factors for self-mutilation: 1) a way of regulating, releasing negative emotional feelings such as anger, rage, anxiety, fear or frustration, and 2) obtaining a sense of excitement or stimulation similar to a "drug high".

The self-mutilation technique of *cutting* was associated with the motivational factors

mood modulation and mood dysregulation (regulating, releasing negative emotions). Cutting

was associated with self-stimulation and as a form of addiction (sense of excitement or self-

stimulation that is exhilarating like a "drug high"). Cutting had the most lifetime events

(highest repeated self-mutilation), giving it an addictive quality. Other types of self-

mutilation such as **head banging** and **sticking self with a sharp object** also were associated

with the motivational themes mood modulation and mood dysregulation (as a means of

regulating and releasing negative feelings). While motivational factors such as mood

modulation, mood dysregulation and self-stimulation give meaning to self-mutilation, other

data that give meaning and understanding into this behavior involved the concept of labeling,

social stigma, self-mutilating to control the environment, communicating feelings, needs and

having a "voice" as well as feeling devalued. These concepts showed the breadth of meaning

to this one behavior and provided an increase understanding in the area of self-mutilation

among adult males who are incarcerated.

Creswell and Plano Clark (2011) noted that a researcher has several options when

quantitative/qualitative results differ: recheck methodological techniques to insure quality

and consistency (done and reported in this study); collect additional data to see if anything

changes in the findings (not an option at this point of dissertation completion); or view the

discrepancy as a starting point for future inquiry. The third option is the appropriate choice

here and will be addressed in the next chapter.

Laudan (1977) once stated that the purpose of good science was to solve problems.

He also pondered the impact of combining research traditions to do this, much as has been

done here. He said, "There are times when two or more research traditions, far from

mutually undermining one another, can be amalgamated, producing a synthesis which is progressive with respect to both the former research traditions (p.103)….not by the articulation of a research tradition whose *ingredients* are revolutionary and new, but rather by the development of a research tradition whose novelty consists in the way in which old ingredients are *combined*" (p. 104). He further suggested criteria for determining the value of new research traditions (such as mixed methods designs), summarized as *adequacy and progress* (effectiveness at solving problems); *acceptance and pursuit* (truth value and rate of progress in solving problems); and *adhocness and evolution* (capacity to manage anomalies or unanticipated results consistently). No effort was made in this dissertation to appraise these criteria, but that undertaking might follow additional investigations in this developing area of study.

The choice of a mixed methods design has proven fruitful for obtaining both empirically measurable information and perceptual insight into the minds of the self-mutilators. Findings that sometimes converged and sometimes diverged demonstrated the need to pursue the current and other research questions in future investigations. What the merged findings appear to provide is a portrait of human suffering and pain. This was quantifiable (to the extent possible) by the psychometric evaluations done here, partially knowable and expressive through the wounds and in the interview responses, and the photo-elicitation of deeper meanings. The descriptive ideas of *wholeness* and *complexity* were documented and verified in the comparative analysis of findings. The focus of the final chapter will turn to a discussion of significance, implications, conclusions, limitations, and directions for future research.

Chapter VII

Conclusions, Findings, and Implications

Introduction

   The final chapter of this dissertation consists of five sections. The first of these is significance, which provides a brief overview of the study, including a statement of the problem and the major methods involved. The second section examines the final conclusions and implications of the study. The third section will discuss the limitations, and the fourth portion of the chapter will address directions for future research. The fifth and final section is devoted to the summary and reflections on the overall pertinence of the findings.

Significance

   Self-mutilation among adult males who are incarcerated is an area of concern in forensic science. The act of self-mutilation can be brutally disfiguring, physically debilitating, emotionally exhausting, or result in death. Self-mutilation by this population can have serious health consequences, impact the safety of the institution, and also have fiscal consequences. While this remains a serious *forensic* issue, there is a paucity of research in the area of the etiology, function and meaning self-mutilation holds for this group of men. Most studies of this kind in correctional settings are descriptive or based on case studies and have been conducted on female subjects (Chandler, Myers, & Platt, 2011). We lack a consistent operational definition for the action of self-mutilation, thus giving an inconsistent, inaccurate portrait of the typical self-mutilator and contributing to the lack of understanding of the phenomenon among adult males. There also exists a scarcity of research addressing the relationship among function, severity, frequency, type, and duration of self-mutilation among adult males who are incarcerated.

This exploratory mixed methods study was conducted to explore the phenomenon of self-mutilation among males in a correctional setting. The aims of the study were to:

1. Identify the relationship among age, motivational factors, and the frequency of self-mutilating behavior.

2. Determine which specific motivation factors are associated with the type and severity of self-mutilating behavior.

3. Explore the meaning self-mutilation possesses for adult males in a correctional setting.

4. Explore in greater depth motivational factors that influence self-mutilating behavior among adult males in a correctional setting.

A sample of 42 incarcerated adult males between the ages of 20 and 55 of who had a prior history of self-mutilation and were incarcerated in Level I, II, or III institutions in New Mexico correctional facilities volunteered for this study. Participants were recruited with the assistance of mental health directors and professional mental health staff. All 42 participants approached for this study consented to participate in all phases of the research (quantitative-qualitative). A certificate of confidentiality was also obtained from the NIH.

Given the uncertainty and complexity of the research problem, a mixed methodology was used to explore the phenomenon of self-mutilation among incarcerated adult males. The first phase of the study was the quantitative phase, which used three instruments: a researcher demographic questionnaire, deliberate self-harm inventory scale, and self-injury motivational scale. The second phase was qualitative and used an ethnographic photo elicitation approach in which digital photos were taken of selected scars and wounds, followed immediately by an ethnographic interview in order to illicit information on motivational factors, and the

meaning self-mutilation poses for adult males who are incarcerated who self-mutilate. Analysis of the quantitative and qualitative data was conducted separately with separate results. The results from both the quantitative and qualitative were merged, integrated, analyzed and synthesized, producing mixed method findings.

Conclusions and Implications

The study was the first of its kind ever conducted in the State of New Mexico and one of the few in the nation. It explored the types, frequency, onset, and motivational factors for self-mutilation. A mixed method design was chosen in order to more fully explore the phenomena of self-mutilation. The use of a photo elicitation technique in a correctional setting has not commonly been actualized. This methodology proved to be innovative and valuable in a setting that is typically time-restricted and limited in its capacity to build rapport with prisoners.

Self-mutilation was defined by the researcher as the deliberate destruction or alteration of body tissue without conscious suicidal intent. There is a lack of clarity and consistency regarding the terms used in prison to describe or understand self-mutilation. Self-mutilation is often confused with attempted suicide in a correctional setting. There are many terms in the literature to define self-mutilation, and while they may be somewhat similar they differ in their exclusions or inclusions of suicidal intent. Such poor evidence causes linguistic and conceptual confusion in the literature, thus impeding research in the area of self-mutilation. The most commonly used clinical definitions in the literature were developed by Armando Favazza (1995), who classified self-mutilation into two main categories, *cultural practices* and *pathological behavior*. Cultural practices are embedded in traditions and spiritual beliefs of the individuals who self-mutilate. Pathological self-

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mutilation involves the presence of a particular pathological distress/condition or mental illness. Pathological self-mutilation is further categorized into three subcategories according to the degree of severity, rate and pattern of behaviors. These categories include major self-mutilation, stereotypic patterns, and moderate/superficial wounding (Favazza, 1989). Major self-mutilation refers to infrequent acts such as eye enucleation, castration, and limb amputation. They are not essential symptoms of any disorder, but may appear most commonly as associated features of psychosis (acute psychotic episodes, schizophrenia, mania, depression) and acute intoxications.

Stereotypic self-mutilation refers to acts such as head banging, hitting self, orifice digging, arm hitting, throat and eye gouging, self-biting, tooth extraction, and joint dislocation and are highly prevalent in institutionalized mentally retarded persons or those with neurological disorders. Superficial/moderate self-mutilation refers to acts such as trichotillomania, nail biting, and skin picking and scratching, which generally comprise compulsion, and to skin cutting, carving, and burning, needle-sticking, bone breaking, and interference with wound healing, which consist of the episodic and repetitive actions. Superficial/moderate is thought to be the most common form/intensity of self-mutilation. Moderate/superficial self-mutilation is epitomized by skin cutting and burning; it is a common behavior that has received the most examination and analysis in the literature. Persons who engage in self-mutilation usually reflect the presence of psychopathology associated with a broad variety of conditions such as personality disorders, eating disorders and factitious disorders (Favazza, 1996).

For the purpose of this research the term superficial /moderate self-mutilation was used to define the type of self- mutilating behavior most often studied. However, the

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definition superficial or moderate did not totally define this population. Many of the superficial /moderate acts were severe, disfiguring, and potentially lethal. Superficial/ moderate self-mutilation in the literature is epitomized by superficial and moderate cutting (primarily reported in female subjects) (Favazza, 1996, 1998). In this study the most predominant type of self-mutilation was also cutting; however, the majority of injuries were severe and 38 of the 39 subjects required medical attention or hospitalization. There were 3 subjects that required emergency surgery and one has required a permanent ostomy appliance. Thirty nine (92%) of the men reported engaging in "cutting" in a combined total of 2,746 times. Cutting was located predominantly on the forearm, antecubital space in the arm, and thighs. Other locations/sites were on the chest, neck, ankles, and abdomen. Scars ranged from thin to wide and were often chaotic in nature. The average age of onset for this type of self-mutilation was age 13 years. Motivational factors associated with "cutting" were predominantly mood dysregulation (refers to difficulty regulating or controlling one's emotional responses and behavior), self-stimulation (sense of excitement, stimulation or release tension that feels like a sexual release or drug high) and addictive quality (like a drug or heroin rush which has an addictive quality). Participants reported that it was not just committing the act of cutting or feeling pain, but seeing the blood, smelling the blood, and feeling the warmth of the blood on the skin that alleviated the particular need. This sensory response to self-mutilating also produced "cravings" and obsessional thinking (as evidenced by the frequency of certain types of mutilation) that could trigger further self-mutilation. Other triggers identified were witnessing, or seeing correctional staff respond to a self-mutating event in prison.

The other two most predominant types of self-mutilation were head banging and sticking self with sharp objects. The 33 participants (78.6%) who endorsed head banging reported that this behavior began at age 13. The total lifetime number of events for this behavior was 1,054. Thirty three percent who endorsed this type of self-mutilation required medical treatment or hospitalization. The motivational factor that correlated with this type of behavior was mood modulation. Participants who reported engaging in this type of behavior said they engaged in this behavior impulsively during times of frustration and feeling overwhelmed.

Sticking self with objects was the only type of self- mutilating behavior that positively correlated with age. The 30 participants who endorsed this type of self-mutilation were an average age of 13 when it happened. Thirty eight percent who endorsed this type of self-mutilation reported requiring medical treatment or hospitalization. When the data were merged, the motivational factor that was endorsed was mood modulation. This type of behavior produced significant physical changes not only to the exterior, but also interior of the body.

Self-mutilation had multiple meanings to study participants, such as feeling devalued as a human; using self-mutilation to communicate needs, feelings, and the ability to be a "warrior" or man; and controlling the environment when they felt it was a dangerous or likely to result in bullying from others. Participants reported that they felt demeaned as people, correctional staff and other inmates who did not engage in self-mutilation. Mutilators frequently saw themselves as psychologically and physiologically "weak", as exploited victims of some kind. This type of perception was reported as degrading, and adult males who engaged in self-mutilation in a correctional setting reported they had to prove they

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were men and equal to other adult male inmates who did not engage in self-mutilating behavior. To demonstrate their manhood they needed to self-mutilate to a shocking level that proved they could take the pain and be seen as "warriors", not victims.

Self-mutilation in a correctional setting is generally viewed or categorized by correctional staff as "attention-seeking behavior", or "manipulative behavior". Misunderstanding self-mutilation increases the risk or lethality. Participants reported they self-mutilated in private spaces such as their cells and were effectively able to conceal wounds and scars. Concealing wounds or scars meant they could avoid being judged or discriminated against by correctional staff or other inmates who did not self-mutilate, as well as to prevent obtaining a disciplinary report for engaging in self-mutilation. Hiding this behavior could inadvertently result in a delay in getting lifesaving healthcare.

Self-mutilation was also reported as a form of non-verbal communication when they were not able to vocally express themselves, their feelings, or emotional or physical needs. The destruction of the external or internal physical self was viewed as an extreme measure taken to have a "voice" or be heard in an environment where they felt they were marginalized or ignored entirely. Participants described self-mutilation as a means of expression. When participants saw their digital photos of scars or wounds they were able to recall the event, including feelings they experienced at the time of that they self-mutilated.

In an environment where "bullying" is prevalent, those who are perceived as "weak" are exploited. They are at risk for being placed in situations that can lead to death. Self-mutilation for some is a way to escape these situations. While this behavior is seen as "manipulative", the correctional system does not provide a mechanism for those inmates to transfer to safer environments without "snitching" on another inmate. The management of

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this behavior usually results in placing the individual in an environment that is the most restrictive (e.g. solitary confinement) with the possibility of receiving a disciplinary report that restricts privileges.

Limitations of the Study

The sample size N= 42 was small by quantitative standards; therefore, the generalizability of the findings are somewhat limited. Nonetheless, it is one of the largest samples studied in this environment using more than one methodology. Due to the lack of research on the prevalence of self-mutilation among adult males in a correctional setting, a small sample size was intentionally obtained for this study. Additionally, the sample size allowed for greater depth and detail in the qualitative component of the investigation. The instruments used here have been primarily used in academic settings, not with adult males who self-mutilate in a correctional setting. At the completion of the study, it was noted that there were 30 other possible subjects in one institution that wanted to participate in the research. There were also several participants who were interested in the study but could not participate because they were in segregated units and this population was not included in the Internal Review Board (IRB) application. Including participants who self-mutilated and were housed in segregation units where there is little stimulation may have shed more light on the type of self-mutilation and motivational factors. The adult male who self-mutilates in a correctional seeing is clearly part of a different population from residents in a community setting. Motivational and contextual factors for self-mutilation likely differ to some extent in the community setting.

The use of a mixed method design was time consuming in the generational, analytical, and integrative phases, requiring increased and sophisticated logistical planning.

The intensity of managing, processing and interpreting the abundant amount of data required increased organizational skills that can overwhelm a novice researcher. This type of methodology in a dissertation requires increased attention to reliability, validity, and rigor since two methodologies are used. It is therefore critical, as in this document, that the dissertation committee consist of experts in qualitative, quantitative, and mixed methods research.

The use of a digital photo elicitation ethnographic interview is a new concept in the forensic setting. Explanation of this method and getting clearance for photographic equipment and auditory recording devices in this setting was a time-consuming and repetitive task that had to be reprised at each correctional facility and at times on a daily basis in the same facility.   Assurances that photographs of the institution would not be taken were required in order not to jeopardize the safety of the institutions.

This researcher, while no longer employed at the Department of Corrections, knew several stakeholders in the New Mexico Department of Corrections, thus making access to each facility possible. However, for the novice researcher who is not familiar with the correctional system, stakeholders, and knowledge of how a correctional system operates, this kind of research in a forensic system would be extremely challenging, if doable at all. There may rightfully be hesitation by dissertation faculty who lack forensic or correctional experience to approve this type of research. Such research is not impossible, but can prove to be challenging or overwhelming for the novice researcher.

Directions for Future Research

This exploratory research provided preliminary findings on the type of self-mutilation, frequency, severity and motivational factors associated with adult males who self-

mutilate in correctional settings. The study should be replicated with a larger sample size from more varied prison populations. The use of a digital photo elicitation ethnographic interview technique proved to be an effective methodology for engaging forensic subjects in a correctional setting where time and building rapport is limited. This form of interviewing should be further explored and potentially expanded to other areas.

A comparison study between those who are segregated and those who are not may provide additional data. For example, those who are segregated are not allowed to interact with other inmates and spend all of their time isolated from the general population while those in the a general prison population have a greater ability for socialization and interactions. A comparison of types of motivation and self-mutilation and motivation factors may be different for the two groups. Further research is needed about self-mutilation among men in the community. Additionally, a comparison of this group with men who are incarcerated may provide meaningful information. Areas such as exploring types of self-mutilation and motivational factors may clarify motivational factors and explore the extent to which the environment is a crucial factor. In this study, many participants reported a history or onset of self-mutilating behavior during adolescence. Thus a study among adolescent males in the community would further add to the body of knowledge so that early detection and prevention could be further studied and addressed. In this study it was noted that self-mutilation was used a vehicle for communication or self-expression, as well as mood regulation. Further exploration of self-mutilation among adult males who are incarcerated and the phenomenon of alexithymia (inability to express, describing, or experiencing emotions) should be implemented.

In this research adult males consistently stated they were separated from their fathers, suffered from childhood maltreatment, and came from dysfunctional families. These areas should be further studied. Those individuals who reported "craving" self-mutilation when they witnessed someone else self-mutilate, questions if self-mutilation also has a contagious behavior is an area that would require further inquiry. Finally the actual cost of treating those adult males who self-mutilate in New Mexico prisons is unknown and estimated to possibly in the millions. Obtaining accurate data on the financial burden this behavior costs a correctional facility may encourage research in the area of self-mutilation among adult males who are incarcerated.

Summary

Research on the topic of self-mutilation has been conducted primarily on female subjects and considered to be a behavior primary done by females who suffered from a borderline personality disorder (Favazza, 1998; Taylor 2003). It has been postulated that men are not assessed for self-mutilation at the same rate as women and their injuries are viewed as accidental injuries and men are more aware of the stigma of self-mutilation than women and hide their wounds (Taylor, 2003). Much of what is known about self-mutilation and adult males is limited to an academic population. Self-mutilation is beset by a lack of definitional clarity. The lack of a common interpretation/explanation has led to confusion and inconsistency in the research. Self-mutilation is also confused in the literature with the phenomenon of attempted suicide. Little is known about its etiology, functionality/purpose, meaning and avenues for effective intervention. There continues to be debate as to the prevalence of self-mutilation in a prison setting, and it has only been postulated to be at epidemic proportions by anecdotal evidence. The fact that inmates so willingly volunteered,

and many others expressed a desire to participate, suggests that this practice is more prevalent than most forensic scientists imagined.

Due to the lack of our understanding surrounding the phenomenon of self-mutilation, a best practice model or standard of care for the delivery of mental health services for adult males who self-mutilate does not currently exist. Acts of self-mutilation are labeled as manipulation or attention seeking by mental health providers and correctional staff. However the data from this research indicates there is a disconnect in between what correctional staff think are the motivating factors for self-mutilation (attention seeking behavior, and manipulation for secondary gain) and the many reasons adult males in this study reported as motivating factors. Thus it is not viewed as a potentially lethal behavior that could result in death. Correctional facilities are left in a quandary regarding how to decrease this behavior without being punitive, and they struggle to know how to care appropriately for this population. The men of interest to this research are often reviled, marginalized, misunderstood and ignored by society, including many corrections personnel. The investigator hopes there may also be room for something more humane and therapeutic for a group and a problem that scars not only the men themselves, but also all of us externally and internally. In the words of the Dalai Lama, "I find hope in the darkest of days, and focus in the brightest. I do not judge the universe."

Appendices

Appendix A

Human Subjects Approval

THE UNIVERSITY OF NEW MEXICO
HEALTH SCIENCES CENTER

Human Research Review Committee
MSC 08 4560 BMSB Room B71
1 University of New Mexico--Albuquerque, NM 87131-0001
(505) 272-1129 Facsimile (505) 272-0803
http://hsc.unm.edu/som/research/hrrc/

17-Sep-2009

Averill, Jennifer B, Ph.D.
College of Nursing

SUBJECT: HRRC Approval of New Research Protocol
HRRC#: 09-276
Study Title: Exploring the phenomenon of self-mutilation of among adult males: A Mixed Method Approach
Type of Review: Full Committee Review
Approval Date: 17-Sep-2009
Expiration Date: 17-Aug-2010

Dear Dr. Averill:

The Human Research Review Committee (HRRC) has reviewed and approved* the above-mentioned research protocol including the following:

Principal Investigator - Jennifer Averill, RN, PhD
Co-Investigator: Yolanda Morales,RN - PhD candidate

1. UNM HSC Full Review Application received 9/14/09
2. Attachment 1 and Attachment 10 received 5/28/09
3. Protocol "Exploring the phenomenon of self-mutilation of among adult males: A Mixed Method Approach" version 8/10/09 (received 8/11/09)
4. UNM HSC Combined Consent and HIPAA version 8/11/09
5. Recruitment Letter to Colleagues version 2
6. Recruitment Script version 2
7. Demographic Questions for Research Study received 5/28/09
8. Deliberate Self- Harm Inventory
9. Sample Interview Questions received 5/28/09
10. Self-Injury Motivation Scale II (SIMS) version 2

Note: HRRC Understands that investigator will obtain a Certificate of Confidentiality once IRB approval is given.

[45CFR46.306(a) (2) i]

Consent decision:
Requires a signed consent form

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HIPAA Authorization on record; signed HIPAA required

This study is approved to enroll only the number of subjects listed in the application, protocol and consentform(s). If the PI wants to enroll additional subjects, it is the responsibility of the PI to submit an Amendment/Change to the HRRC before the approved number of enrolled subjects is exceeded. If increased enrollment is requested, the application, protocol and/or consent form(s) must also be amended to include the new target.

Sincerely,

Mark Holdsworth, Pharm.D., BCOP
Executive Chair
Human Research Review Committee

* Under the provisions of this institution's Federal Wide Assurance (FWA00003255), the HRRC has determined that this proposal provides adequate safeguards for protecting the rights and welfare of the subjects involved in this study and is in compliance with HHS Regulations (45 CFR 46), FDA Regulations (21 CFR 50, 56).

HRRC FACT SHEET

Accessing Forms: All forms may be accessed on the HRRC website at http://hsc.unm.edu/som/research/hrrc/. Frequent changes are made to HRRC forms; therefore it is recommended that you <u>do not</u> save forms on your personal computer for future use.

Consent/Assent Form(s): When consent is required, it is the responsibility of the principal investigator (PI) to ensure that ethical and legal informed consent has been obtained from all research participants. A date stamped original of the HRRC approved consent form (s) is attached, and copies should be used for enrolling participants during the above approval period.

Continuing Review: To comply with federal law, the HRRC must conduct continuing review of this research before the expiration date noted above. It is the responsibility of the PI to submit a progress report to the HRRC at least 30 days prior to the end of the approval period in order for this study to be considered for continuation. An electronic copy of the current protocol, which has been updated to reflect all amendments and changes made to the research, must be submitted with the Progress Report and should be sent electronically to <u>HRRC@salud.unm.edu.</u>

Amendments and Changes: Investigators are not permitted to implement any amendments to this protocol or changes to the consent form(s) without prior approval of the HRRC. In situations where changes are made to eliminate apparent immediate hazard to the subjects, the HRRC should be notified of the change immediately.

Adverse Events: Adverse events or unexpected problems must be reported to the HRRC in accordance with the HRRC adverse event policy at <u>http://hsc.unm.edu/som/research/hrrc/MANUAL.html#eighttwo.</u>

Correspondence: Please reference the HRRC # and study title in all documents and correspondence related to this protocol. All HRRC correspondence is considered source documents and must be maintained with the research records.

Study Closures: To close a study, a Closure Report must be submitted to the HRRC. In the event the PI has received a request for Progress Report and local research activities are complete, the Progress Report, indicating the PI's request to close the study, should be submitted in lieu of the Closure Report.

HIPAA Authorization Addendum: Although federal regulations do not require HRRC approval of HIPAA research authorization forms, the HRRC requires the HIPAA authorization addendum as supporting documentation with new studies and continuing review submissions. HIPAA Authorization addenda undergo an "administrative" review, but are not subject to HRRC approval. Therefore, HIPAA authorization addenda are not stamped with approval/expiration dates, nor are they returned to the principal investigator. If HIPAA Authorization is required, the HIPAA Authorization version noted in the approval letter must be signed in conjunction with the consent form.

Appendix B

Subject Consent Forms

<center>
The University of New Mexico Health Sciences Center
Consent to Participate in Research
</center>

Exploring the Phenomenon of Self-Mutilation Among Adult Males in a Correctional Setting: A Mixed Methods Approach

Purpose and General Information

You are being asked to participate in a research study that is being done by Jennifer Averill RN, PhD, who is the Principal Investigator, and Yolanda M. Morales RN, PhD(c) who will do the actual collection of information, from the University of New Mexico College of Nursing. This research is studying self-mutilation (injuring oneself on purpose) among adult males in order to increase awareness and understanding of this behavior among adult males who are incarcerated (in prison). You are being asked to participate because little is known about incarcerated adult males who self-injure themselves on purpose as well as factors that may contribute to this behavior. You are being asked to participate in this study so that self-mutilation among adult males who are incarcerated can be understood and treated. Approximately 42 adult males who are incarcerated in New Mexico Correctional facilities in: Los Lunas, Santa Rosa, Hobbs, and Las Cruces and have a prior history of self-mutilation will take part in this study. You are being invited to take part in this study because you have a history of self-injuring yourself and you are currently incarcerated.

This form will explain the study to you, including the possible risks as well as the possible benefits of participating. This is so you can make an informed choice about whether or not to participate in this study. Please read this Consent Form carefully. Ask the investigators or study staff to explain any words or information that you do not clearly understand.

What will happen if I participate?

If you agree to be in this study, you will be asked to read and sign this Consent Form. This study has three parts: the three sets of questions, two photographs taken of the most recent wounds and scars, and most severe wounds and scars. Only wounds and scarring that do not have tattoos or don't spell a word on the back legs, arms or chest will be taken. The final part of the study is an audio taped interview. You may choose to participate in any or all parts of the study. You may stop the study at any time. After you sign the Consent Form, the following things will happen:

You will be asked to complete three sets of questions that will be read to you: The Deliberate Self-harm Inventory (sample question: *Have you ever intentionally cut your wrist, arms, or other area(s) of your body*; Researcher Survey sample question: *What is your age?*; and Self- Injury Motivational Scale sample question: *Why have you injured yourself?*. (15- 20 minutes to complete). Will you consent to responding to the questionnaires?

_____ Yes _____ No _____ Initials

<center>
Page 1 of 6
</center>

HRRC# 09-276
Version: 08/11/09

OFFICIAL USE ONLY
APPROVED   09/17/2009   UNM | Human Research Protections Office   EXPIRES   08/17/2010
The University of New Mexico Human Research Review Committee

<center>
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</center>

You will have a digital photograph done of your self inflicted wounds and scars (which cannot identify you- photos of your face or identifiable tattoos will not be taken) (10 minutes to complete). Will you consent to having a photograph taken of your self-inflicted wounds and scars?

_____Yes _____No _____ Initials

These photos will be used in future research, as yet undefined. Will you consent to having a photograph taken of your self-inflicted wounds and scars used for future research?

_____Yes _____No _____ Initials

You will also participate in an audio taped interview (30-45 minutes to complete) by Ms. Morales. Will you consent to participating in the audio-taped interview? During the interview you may be asked questions like: "Can you tell me about this photo of your wound and what it means to you?" "Can you tell me the story about this photo?" "How did you injury yourself in this photo?" "How old were you when you first hurt yourself?"

_____Yes _____No _____Initials

How Long Will I Be in This Study?

Participation in all of the study will take between 65 and 75 minutes. If you choose not to participate in all of the study the total time will be less.

What are the possible risks or discomforts of being in this study?
Every effort will be made to protect the information you give us. However, there is a small risk of loss of confidentiality. Possible risks or side effects of the study may include: A possible risk of triggering an episode of self- harm, stress, emotional distress, inconvenience and possible loss of privacy and confidentiality associated with participating in a research study. For more information about risks and side effects, please ask Ms. Yolanda Morales (on site in the prison) or Dr. Averill, who is supervising Ms. Morales' work.

How will my information be kept confidential?
Dr. Averill and Ms. Morales will take measures to protect your privacy and the security of all your identifiable information, but we cannot guarantee confidentiality of all study data. Pictures on memory cards, signed consent form, audio tapes, and three sets of questions will be stored in a locked cabinet at the investigator's office (locked door) at the College of Nursing. Only the primary investigator and co-investigator (Yolanda M. Morales) will have access to the data. The audiotapes, instruments, will be destroyed (shred) within 5 years of completion of the study. The pictures will be kept for future research for a period of 5 years and then erased from the memory card (if you agree). If you do not agree to have your photographs used for future research they will taken out and destroyed in 5 years after the completion of the study. You will not be identified in the research.

Information obtained during the study will be used by the researcher. The University of New Mexico Health Sciences Center Human Research Review Committee (HRRC), which oversees all research involving people, Dr. Averill and Ms. Morales will be permitted to access your records. There may be times when we are required by law to share your information. However, your name will not be used in any published reports about this study. The photographs will not be linked to you in any way.

To help us further protect the confidentiality of your data, the investigators have obtained a Confidentiality Certificate from the Department of Health and Human Services (DHHS). With this certificate, the investigators cannot be forced (for example by court subpoena) to disclose research information that may identify you in any Federal, State, or local civil, criminal, administrative, legislative, or other proceedings. Disclosure will be necessary, however upon request of DHHS or other federal agencies for audit or program evaluation purposes.

You should understand that a Confidentiality Certificate does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. Note however, that if an insurer or employer learns about your participation, and obtains your consent to receive research information, then the investigator may not use the Certificate of Confidentiality to withhold this information. This means that you and your family must also actively protect your own privacy and the confidentiality of your data.

Finally, you should understand that the investigator is not prevented from taking steps, including reporting to authorities, to prevent serious harm of yourself or others.

What are the benefits to being in this study?
There may or may not be direct benefit to you from being in this study. By taking part in this research, you will not get any special treatment or advantages in the New Mexico Corrections Department. However, it is hoped that information gained from this study will help in the prevention, treatment and understanding of self-mutilation among adult males who are incarcerated.

What other choices do I have if I don't participate?
Taking part in this study is voluntary so you can choose not to participate.

Will I be paid for taking part in this study?
In return for your time and the inconvenience of participating in this study, the amount of five dollars (in the form of a cashier's check of $5.00) will be deposited into the commissary account at your assigned facility upon completion of your participation.

How will I know if you learn something new that may change my mind about participating?

You will be informed of any significant new findings that become available during the course of the study, such as changes in the risks or benefits resulting from participating in the research or new alternatives to participation that might change your mind about participating.

What will happen if I am injured or become sick because I took part in this study?

No commitment is made by the University of New Mexico Health Sciences Center (UNMHSC) to provide free medical care or money for injuries to participants in this study. If you are injured or become sick as a result of this study researcher will notify New Mexico Correctional Medical Services. It is important for you to tell Ms. Morales and Dr. Averill immediately if you have been injured or become sick because of taking part in this study. If you have any questions about these issues, or believe that you have been treated carelessly in the study, please contact the Human Research Review Committee (HRRC) at the University of New Mexico Health Sciences Center, Albuquerque, New Mexico 87131, (505) 272-1129 for more information.

Can I stop being in the study once I begin?
Yes, your participation in this study is completely voluntary. You have the right to choose not to participate or to withdraw your participation at any point in this study without affecting your future health care or other services to which you are entitled.

Dr. Averill and Ms. Morales may end your participation in the study if you experience significant psychological distress such as panic attacks or the desire to hurt yourself or others. If you become anxious or depressed by discussing the issues you face as an incarcerated man who self injures himself, you will be referred to the facility's mental health service.

The investigators have the right to end your participation in this study if they determine that you no longer qualify to take part, if you do not follow study procedures, or if it is in your best interest or the study's best interest to stop your participation. The Sponsor may stop the study at any time.

Whom can I call with questions about my rights as a research subject?
If you have questions regarding your rights as a research subject, you may call the UNMHSC HRRC at (505) 272-1129. The HRRC is a group of people from UNM and the community who provide independent oversight of safety and ethical issues related to research involving human subjects. For more information, you may also access the HRRC website at http://hsc.unm.edu/som/research/hrrc/.

Authorization for Use and Disclosure of Your Protected Health Information (HIPAA)
As part of this study, we will be collecting health information about you and sharing it with others. This information is "protected" because it is identifiable or "linked" to you.

Protected Health Information (PHI)
By signing this Consent Document, you are allowing the investigators and other authorized personnel to use your protected health information for the purposes of this study. The information that may be used includes: In direct access to the NMCD Mental Health Crisis Log and mental health assessment obtained upon inmate admission or transfer to your facility. The mental health staff will identify those individuals with a history of self-mutilation in the crisis log or from mental health intake to later be referred to the researcher

In addition to researchers and staff at UNMHSC and other groups listed in this form, there is a chance that your health information may be shared (re-disclosed) outside of the research study and no longer be

HRRC# 09-276
Version: 08/11/09

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The University of New Mexico Human Research Review Committee

protected by federal privacy laws. Examples of this include disclosures for law enforcement, judicial proceeding, health oversight activities and public health measures.

Right to Withdraw Your Authorization
Your authorization for the use and disclosure of your health information for this study shall not expire unless you cancel this authorization. Your health information will be used or disclosed as long as it is needed for this study. However, you may withdraw your authorization at any time provided you notify the UNM investigators in writing. To do this, please send a letter to:

Jennifer Averill RN, PhD
Associate Professor UNM College of Nursing
MSC 09 5350
1 University of New Mexico
Albuquerque New Mexico 87131

Please be aware that the research team will not be required to destroy or retrieve any of your health information that has already been used or shared before your withdrawal is received.

Refusal to Sign
If you choose not to sign this consent form and authorization for the use and disclosure of your PHI, you will not be allowed to take part in the research study.

What if I have questions or complaints about this study?
If you have any questions, concerns or complaints at any time about the research study, Jennifer Averill RN, PhD , or Ms. Yolanda M. Morales will be glad to answer them. Yolanda Morales was a prior employee (last employed 2000) of the New Mexico Corrections Department. You can contact them through the mental health director at your facility, who may give you an address or possibly call Dr. Averill or Ms. Morales on your behalf. The New Mexico Corrections Department mental health director is available Mon-Fri, 8:00AM-4:30 PM. If you would like to speak with someone other than the research team, you may call the UNMHSC HRRC at (505) 272-112. The HRRC is a group of people from UNM and the community who provide independent oversight of safety and ethical issues related to research involving human subjects This number will be made available to the mental health director at your facility if you wish to call him, or an address will be given to you if you wish to write to him.. .

What are my rights as a research subject?
If you have questions regarding your rights as a research subject, you may call the HRRC at (505) 272-1129 or visit the HRRC website at http://hsc.unm.edu/som/research/hrrc/.

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The University of New Mexico Human Research Review Committee

Consent and Authorization

You are making a decision whether to participate in this study. Your signature below indicates that you read the information provided (or the information was read to you). By signing this Consent Form, you are not waiving any of your legal rights as a research subject.

_____

I have had an opportunity to ask questions and all questions have been answered to my satisfaction. By signing this Consent Form, I agree to participate in this study and give permission for my health information to be used or disclosed as described in this Consent Form. A copy of the signed consent will not be given to participants and the investigator in order to minimize the risk of identification of participation in the study by prison authorities and other prisoners.

_____   _____/_____

Name of Adult Participant (print)   Signature of Adult Participant   Date

I have explained the research to the subject and answered all of his/her questions. I believe that he/she understands the information in this consent form and freely consents to participate.

_____   _____/_____

Name of Research Team Member   Signature of Research Team Member/Date

HRRC#: 09-276
Version: 8/11/09

OFFICIAL USE ONLY

| APPROVED | 09/17/2009 | UNM | _Human Research Protection Office_ | EXPIRES | 08/17/2010 |

The University of New Mexico Human Research Review Committee

Appendix C

Instruments

Demographic Questions
For Research Study

A Quantitative and Qualitative Inquiry of Adult Males who Self-Mutilate in a Correctional Setting

Directions: Participants will be asked the following questions. The information you provide will only be used in this study.

1. What is your age? _____

2. Are you married? _____

3. What ethnicity are you? (**Please check one**)

      ☐ Hispanic or Latino

      ☐ Non-Hispanic

4. What is your race? (**Please check one**)

      ☐ American Indian or Alaskan Native

      ☐ Asian

      ☐ Black or African American

      ☐ Native Hawaiian or Other Pacific Islander

      ☐ White

5. How old were you when you first engaged in self-mutilation?_____(years)

6. When did you last self-mutilate? _____(number of: days, weeks, months, or years)

DELIBERATE SELF-HARM INVENTORY

#_____

Directions: This questionnaire asks about a number of different things that people sometimes do to hurt themselves. Please be sure to read each question carefully and respond honestly. Often, people who do these kinds of things to themselves keep it a secret, for a variety of reasons. However, honest responses to these questions will provide us with greater understanding and knowledge about these behaviors and the best way to help people. Please answer yes to a question only if you did the behavior intentionally, or on purpose, to hurt yourself. Do not respond yes if you did something accidentally (e.g., you tripped and banged you head on accident). Also, please be assured that your responses are completely confidential.

1. Have you ever intentionally (i.e., on purpose) cut your wrist, arms, or other area(s) of your body (without intending to kill yourself)? (circle one):1. Yes 2. No

If yes, How old were you when you first did this?_____

How many times have you done this?_____

When was the last time you did this?_____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?)_____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment?_____

In the questionnaire given to participants, the above format is used for each of the following items, with each index question followed by the five follow-up questions.

Like Item 1, each of the following items begins with the phrase: Have you ever intentionally (ie, on Purpose)

2. Burned yourself with a cigarette?_____

3. Burned yourself with a lighter or a match?_____

4. Carved words into your skin?_____

5. Carved pictures, designs, or other marks into your skin?_____

6. Severely scratched yourself, to the extent that scarring or bleeding occurred? _____

7. Bit yourself, to the extent that you broke the skin?_____

8. Rubbed sandpaper on your body?_____

9. Dripped acid onto your skin?_____

10. Used bleach, comet, or oven cleaner to scrub your skin? _____

11. Stuck sharp objects such as needles, pins, staples, etc.. into your skin, not including tattoos, ear piercing, needles used for drug use, or body piercing?_____

12. Rubbed glass into your skin?_____

13. Broken your own bones?_____

14. Banged your head against something, to the extent that you caused a bruise to appear?_____

15. Punched yourself, to the extent that you caused a bruise to appear?_____

16. Prevented wounds from healing?_____

17. Done anything else to hurt yourself that was not about in this questionnaire? _____

If yes, what did you do to hurt yourself?_____

SIMS

(version 2)

Elizabeth A. Osuch, M.D.

<u>Directions</u>

This scale contains a list of reasons people may have for injuring themselves. For each question, circle the number that tells how much of the time your self-injury has been due to that reason. Circle a "0" if it has never been one of your reasons; circle "10" if it has always been one of your reasons. If it has been a reason of yours, but not all the time, circle a number between 1 and 9 that best describes how often that reason has been related to your self-injury.

EXAMPLE: *I have injured myself—*

To protect myself

| 0 | 1 | 2 | ③ | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| (never) | | | | | | | | | | (always) |

I have injured myself--

1. To provide a sense of excitement or stimulation that feels exhilarating

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

2. To "protect" important people in my life

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

3. To produce feelings and a sense of being real when I feel numb and "unreal"

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

4. To diminish a feeling of being utterly alone

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

5. To control the reactions and behavior of others

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

6. To distract myself from emotional pain by experiencing physical pain

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

7. To punish myself for positive feelings or experiences

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

8. To decrease feelings of fear

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

9. To prevent myself from acting on suicidal feelings

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

10. To produce a feeling of distance or numbness when my feelings are too strong or overwhelming

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

11. To satisfy voices inside or outside of me telling me to do it

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

12. To punish myself for telling secrets

  0   1   2   3   4   5   7   8   9   10
(never)   (always)

13. To prevent myself from hurting someone else

0	1	2	3	4	5	7	8	9	10
(never)									(always)

14. To "kill" a part of myself

0	1	2	3	4	5	7	8	9	10
(never)									(always)

15. To decrease feelings of rage

0	1	2	3	4	5	7	8	9	10
(never)									(always)

16. To hurt someone important in my life

0	1	2	3	4	5	7	8	9	10
(never)									(always)

17. To punish myself for being "bad" in some way (angry, selfish, stupid, etc.)

0	1	2	3	4	5	7	8	9	10
(never)									(always)

18. To express anger at, or to seek revenge toward others

0	1	2	3	4	5	7	8	9	10
(never)									(always)

19. To remind myself that I deserve to be hurt or punished

0	1	2	3	4	5	7	8	9	10
(never)									(always)

20. To keep bad memories away

0	1	2	3	4	5	7	8	9	10
(never)									(always)

21. To show others how hurt (damaged, hopeless), I am

0	1	2	3	4	5	7	8	9	10
(never)									(always)

22. To do something that only I have control of and no one else can control

0	1	2	3	4	5	7	8	9	10
(never)									(always)

23. To please an important figure (God, the Devil, or etc.), who wants me to do it

0	1	2	3	4	5	7	8	9	10
(never)									(always)

24. To provide a sense of tension release that feels like sexual release

0	1	2	3	4	5	7	8	9	10
(never)									(always)

25. To show others how angry I am

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

26. To remind myself that I'm alive when I otherwise feel "dead"

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

27. To diminish feeling so "empty"

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

28. To irritate or shock someone in my life

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

29. To control parts of myself that would otherwise control me

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

30. To diminish feelings of sexual arousal

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

31. To experience a "high" that feels like a drug high

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

32. To show others how strong or "tough" I am

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

33. To help me escape from uncomfortable feelings or moods

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

34. To seek support and caring from others when I can't or won't ask them directly

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

35. To prove to myself how much I can take

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

36. It makes no sense to me; I don't know why I do it and it seems to serve no function

| 0 (never) | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 (always) |

Sample Interview Questionnaire

1. Can you tell me about this picture?

   - What meaning does it have for you?

2. Have you done similar injuries as those in the picture?

   - Can you tell about the other self-injuries you have done?

3. Did you need medical attention for the self-mutilation in the picture?

   - (If they received medical treatment) How were you treated?

   - (If they did not receive medical treatment) Did you treat your own injuries?

Appendix D

Research Design: Mixed Method

Research Design Diagram

QUAN	QUAL
QUAN Data Collection (Instrumentation):	**QUAL Data Collection (Visual Ethnography):**
● Researcher's Demographic Questionnaire ● Deliberate Self-Harm Inventory ● Self-Injury Motivational Scale	● Digital Photography ● Photo-Interview ● Merging visual-verbal data
QUAN Data Analysis	**QUAL Data Analysis**
QUAN Results	**QUAL Results**

Compare and Contrast Results

Interpretation QUAN + QUAL

Appendix E

NMDC Study Approval

STATE OF NEW MEXICO
CORRECTIONS DEPARTMENT
Central Office Administration: 4337 State Road 14, Santa Fe, New Mexico 87508
Post Office Box 27116, Santa Fe, NM 87502-0116
(505) 827-8600 - Main Number (505) 827-8220 – Fax
www.corrections.state.nm.us

BILL RICHARDSON, Governor
Central Administration:

Joe R. Williams
Secretary of Corrections, 827-8884

Tim LeMaster
Deputy Secretary, Operations, 827-8656

Jolene M. Gonzales
Deputy Secretary, Administration, 827-8667

Gail Oliver
Deputy Secretary, Re-entry

Division Directors:
(Vacant) **Adult Prisons,** 827-8767
Charlene Knipfing, **Probation & Parole,** 827-8830
Fernando Gallegos, **Training Academy,** 827-8900
Willie Marquez, **Corrections Industries,** 827-8838
Tony E. Marquez Jr., **Admin. Services,** 827-8601
Larry Pacheco, **Information Technology,** 827-8713
Jim Brewster **General Counsel,** 827-8698

31 March 2009

Institutional Review Board
c/o College of Nursing
University of New Mexico
Albuquerque New Mexico

To Whom It May Concern:

PhD Candidate Y. Morales has proposed conducting her dissertation research through the New Mexico Corrections Department.

In review of her proposal, the New Mexico Corrections Department sees no concern about the conduct of this research through our Department. We warmly encourage her participation.

WITH WARMEST APPRECIATION,

STEPHEN A. VAUGHN MD PhD
CHIEF MEDICAL ADMINISTRATOR
NEW MEXICO CORRECTIONS DEPARTMENT

Ms. Morales

1 of 1

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Appendix F

Matrix of Types of Self-mutilation by Characteristics

Matrix of types of self-mutilation by characteristics.

Types	N (%)	Age 1st engaged in self mutilating type Mn (sd)	How Many Times	Last Time(years)	*How Many Years Doing This Mn(sd)	Hospitalized as a result n(%)
Cutting	39 (92.9)	17.6 (9.8)	5	1 yr	13.0 (10.6)	31 (73.8)
Burned	14 (33.3)	16.4 (3.4)	1	10 yrs	16.2 (12.4)	1 (2.4)
Burned 2	13 (31)	15.7 (5.1)	1	10 yrs	12.9 (13.2)	3 (7.1)
Carved Word in Skin	5 (11.9)	13.0 (4.0)	1	10 yrs	11.4 (12.3)	0 (0)
Carved Pictures in Skin	4 (9.5)	15.0 (3.5)	1.5	7 yrs	10.5 (12.1)	0 (0
Severe Scratch	22 (52.4)	15.9 (9.7)	6	7 yrs	12.1 (13.7)	8 (19)
Bit Self	17 (40.5)	21.7(13.9)	1	3 yrs	10.4 (8.4)	11 (26.2)
Rubbed Sandpaper on Skin	2 (4.8)	116.5 (10.6)	.5	5 yrs	.50 (.70)	0 (0)
Dripped Acid on Skin	2 (4.8)	21.5 (2.1)	2	5 yrs	11.5 (14.8)	1 (2.4)

Types	N (%)	Age 1st engaged in self mutilating type Mn (sd)	How Many Times	Last Time(years)	*How Many Years Doing This Mn(sd)	Hospitalized as a result n(%)
Stuck with Sharp Objects	30 (71.4)	17.7 (9.8)	4.5	2 yrs	13.1 (12.2)	15 (33.7)
Rubbed Glass in to Skin	3 (7.1)	26. (16.6)	1	8 yrs	8.3 (7.5)	0 (0)
Break Bones	9 (21.4)	16.8 (7.3)	1	9 yrs	13.0 (14.6)	2 (4.8)
Banged Head	33 (78.6)	19.2 (12.)	4	2 yrs	8.2 (9.)	14 (33.3
Punched Self	23 (54.8)	15.9 (6.3)	5	3 yrs	16.2 (11.3)	6 (14.3)
Prevent Wounds from Healing	23 (54.8)	16.1 (6.8)	3	3 yrs	7.0 (9.2)	17 (40.5)
Others	23 (54.8)	22.9 (11.)	1	7 yrs	9.8 (9.5)	17 (40.5)

Mn = mean; sd= standard deviation; * For how many times they did this behavior: 0= 0, 1= 1-6 times, 2= 7- 12 times, 3= 13- 18 times, 4= 19- 24 times, 5= 25- 30 times, 6= 31- 36 times, 7= 37- 42 times, 8= 43- 48 times, 9= 49- 54 times, 10 = 55 or more times.

Appendix G

NIH Certificate of Confidentiality

DEPARTMENT OF HEALTH & HUMAN SERVICES   Public Health Service

National Institutes of Health
National Institute of Mental Health
6001 Executive Boulevard
Bethesda, Maryland 20892

November 18, 2009

Jennifer B. Averill, RN, Ph.D.
Associate Professor of Nursing
UNM College of Nursing
MSc09 5350
1 University of New Mexico
2502 Marble, NE
Albuquerque, NM 89131-0001

Dear Dr. Averill:

Enclosed is the Confidentiality Certificate protecting the identity of research subjects in your project entitled, "Exploring the Phenomenon of Self-Mutilation Among Adult Males: A Mixed Methods Approach". Please note that the Certificate expires on March 31, 2011.

Please be sure that the consent form given to research participants accurately states the intended uses of personally identifiable information and the confidentiality protections, including the protection provided by the Certificate of Confidentiality with its limits and exceptions.

If you determine that the research project will not be completed by the expiration date, March 31, 2011, you must submit a written request for an extension of the Certificate three (3) months prior to the expiration date. If you make any changes to the protocol for this study, you should contact me regarding modification of this Certificate. Any requests for modifications of this Certificate must include the reason for the request, documentation of the most recent IRB approval, and the expected date for completion of the research project.

Please advise me of any situation in which the certificate is employed to resist disclosure of information in legal proceedings. Should attorneys for the project wish to discuss the use of the certificate, they may contact the Office of the NIH Legal Advisor, National Institutes of Health, at (301) 496-6043.

Correspondence should be sent to:

Ms. Olga Boikess
Office of Resource Management
National Institute of Mental Health
6001 Executive Boulevard, Room 8102 (MSC 9653)
Bethesda, Maryland 20892-9653
Telephone: (301) 443-3877
Fax: (301) 443-2578

Sincerely,

Olga Boikess

Enclosure

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CONFIDENTIALITY CERTIFICATE

MH-09-205

issued to

University of New Mexico

conducting research known as

"Exploring the Phenomenon of Self-Mutilation Among Adult Males: A Mixed Methods Approach"

In accordance with the provisions of section 301(d) of the Public Health Service Act 42 U.S.C. 241(d), this Certificate is issued in response to the request of the Principal Investigator, Jennifer B. Averill, RN, Ph.D., to protect the privacy of research subjects by withholding their identities from all persons not connected with this research. Dr. Averill is primarily responsible for the conduct of this research.

Under the authority vested in the Secretary of Health and Human Services by section 301(d), all persons who:

1. are enrolled in, employed by, or associated with University of New Mexico and its contractors or cooperating agencies, and

2. have in the course of their employment or association access to information that would identify individuals who are the subjects of the research pertaining to the project known as "Exploring the Phenomenon of Self-Mutilation Among Adult Males: A Mixed Methods Approach",

are hereby authorized to protect the privacy of the individuals who are the subjects of that research by withholding their names and other identifying characteristics from all persons not connected with the conduct of that research.

This behavioral research study examines self-mutilation (injuring oneself on purpose) among adult males in order to increase awareness and understanding of this behavior among adult males who are incarcerated.

A Certificate of Confidentiality is needed because sensitive information about mental health, substance use, illegal activity and psychological well-being will be collected during the course of the study. The certificate will help researchers avoid involuntary disclosure that could expose subjects or their families to adverse economic, legal, psychological and social consequences.

All subjects will be assigned a coded number and identifying information and records will be kept in locked files.

This research is underway, and is expected to end on March 31, 2011.

As provided in section 301 (d) of the Public Health Service Act 42 U.S.C. 241(d):

> "Persons so authorized to protect the privacy of such individuals may not be compelled in any Federal, State, or local civil, criminal, administrative, legislative, or other proceedings to identify such individuals."

This Certificate does not protect you from being compelled to make disclosures that: (1) have been consented to in writing by the research subject or the subject's legally authorized representative; (2) are required by the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) or regulations issued under that Act; or (3) have been requested from a research project funded by NIH or DHHS by authorized representatives of those agencies for the purpose of audit or program review.

This Certificate does not represent an endorsement of the research project by the Department of Health and Human Services. This Certificate is now in effect and will expire on March 31, 2011. The protection afforded by this Confidentiality Certificate is permanent with respect to any individual who participates as a research subject (i.e., about whom the investigator maintains identifying information) during any time the Certificate is in effect.

Date of Issuance: November 18, 2009

Patrick Shirdon
Associate Director for Management, NIMH

Appendix H

Permission to Use Deliberate SIMS

Elizabeth A. Osuch, M.D., FRCP (C)
Department of Psychiatry
339 Windermere Road, PO Box 5339
Room A10-220
London, Ontario, Canada
N6A 5A5

Phone: 519 685-8500 x 32165
Fax: 519 663-3935

Human Research Review Committee
(HRRC-IRB)
1 University of New Mexico
MSU 08-4560
Albuquerque, New Mexico

July 14, 2008

To Whom It May Concern:

I am writing on behalf of Yolanda M. Morales a PhD student at the University at New Mexico College of Nursing. Ms. Morales has requested to use an instrument (Self-Injury Motivational Scale; SIMS version 2), which I developed and tested using psychiatric inpatients. She will be using it for adult males who are incarcerated. While this instrument has not yet been used in a forensic population it has face validity for this population. I support her use of the SIMS in her research, which could prove to be illuminating with regard to motivations for self-injury in the incarcerated population.

Sincerely,

Elizabeth A. Osuch, M.D., FRCP(C)

Faculty of Medicine & Dentistry • Department of Psychiatry • The University of Western Ontario

Appendix I

Permission to Use DSHI Scale

Hi Yoli,

Feel free to use the DSHI in your research. A copy is attached.

Best,
Kim

****
Kim L. Gratz, PhD
Research Assistant Professor
Director, Personality Disorders Division
Center for Addictions, Personality, and Emotion Research (CAPER)
Department of Psychology
University of Maryland
College Park, MD 20742
Office: (301) 405-3551
Cell: (617) 688-0435
Fax: (301) 405-3223
Website: www.addiction.umd.edu

>>> "Yolanda Morales" <YMMorales@salud.unm.edu> 11/19/07 11:57 AM >>>
Dear Dr. Gratz,

    I am requesting permission to use the DSHI scale that you
developed for my dissertation. My population will consist of adult
malesin a correctional setting. The males will range from ages 18 to 55,
and have at least one episode of self-mutilation in their history. Thank
you for your input in the past and hope to hear from you soon.

Respectfully,

Yoli Morales PhDc, APRN, BC, LPCC
University of New Mexico Psychiatric Center
Behavioral Health Education Dept.
Albuqerque, New Mexico
ymmorales@salud.unm.edu

References

Abrams, L. S., & Gordon, A. L. (2003). Self-harm narratives of urban and suburban young women. Affilia, *18*, 429–444.

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