

Factors Linked with Increases in Nonsuicidal Self-Injury: A Case Study

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Abstract:

This case study explored eight clients in outpatient mental health counseling who reported engaging in nonsuicidal self-injury (NSSI) within the 90 days prior to intake. Information on client self-injury, psychological symptoms, and coping behaviors were collected from clients at intake and termination. At program termination, counselors' treatment methods, number of sessions, and credentials were collected. To explore changes in NSSI during counseling, descriptive statistics and frequencies were used. Most clients decreased or extinguished self-injury behaviors by termination, while two clients increased. Problem-focused and avoidant coping strategies appeared to differentiate clients who decreased from clients who increased self-injurious behaviors by termination.

Keywords: nonsuicidal self-injury | case study | coping | counseling

Article:

Researchers and scholars have gained increased knowledge of nonsuicidal self-injury (NSSI), including correlates, causes, and functions, in the last decade (e.g., Bresin, 2014; Chapman, Gratz, & Brown, 2006; Kress, Newgent, Whitlock, & Mease, 2015). NSSI is defined as direct and intentional infliction of tissue damage to oneself without suicidal intent (American Psychiatric Association, 2013; International Society for the Study of Self-injury, 2007). Rates of NSSI among young adults in college range from 11% to 25% (Wester, 2014), while in the general population the rates range from 18% to 46.5% (Favazza, 1989; Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007). The most typical method of engaging in NSSI is cutting

(e.g., Wester & McKibben, 2016), with other behaviors including burning one's skin, pulling hair, scratching or erasing skin, hitting self, and pin pricking. Theories of NSSI explain that the behavior is the result of intense, aversive emotions, the inability to problem solve, and the avoidance of intolerable emotions and situations (Chapman et al., 2006; Nock, 2009). Through these theories, researchers and clinicians have a better understanding of the NSSI cycle.

Aversive emotions and lack of problem-solving abilities are proposed correlates or reasons why individuals engage in self-injury, according to both Nock's (2009) model on the development and maintenance of NSSI and Chapman, Gratz, and Brown's (2006) experiential avoidance model. Specifically, NSSI is positively related to maladaptive forms of coping (Nock & Mendes, 2008; Wester & Trepal, 2010), indicating the inability to adaptively problem solve.

Psychological symptoms such as depression and anxiety have been found to positively relate to NSSI (Hoff & Muehlenkamp, 2010; Stanley et al., 2010), supporting the existence of high aversive emotions prior to self-injury. However, outside of exploring direct one-to-one relationships (e.g., depression to NSSI, family criticism to NSSI; Hilt, Cha, & Nolen-Hoeksema, 2008; Hilt, Nock, Lloyd-Richardson, & Prinstein, 2008; Yates, Tracy, & Luthar, 2008), very little is known about what occurs in mental health treatment.

One goal of working with clients who engage in NSSI is to minimize or extinguish self-harm (Wester & Trepal, 2005), and the general consensus has been that therapy works (Muehlenkamp, 2006). However, most of this research has been conducted in inpatient settings with clients who display more severe mental health symptoms (e.g., borderline personality disorder [BPD]) or clients who receive intensive daily treatment (e.g., dialectical behavior therapy [DBT]). Little research has been done to study clients with less severe mental health symptoms who engage in NSSI and seek treatment in outpatient mental health settings. This lack of information leaves a gap regarding clients who engage in NSSI, including what occurs in outpatient settings in terms of treatment and effectiveness of treatment for NSSI behaviors.

The study conducted was a multiple case study design following eight clients through their outpatient mental health counseling experience from intake to termination. The goal of this study was to explore NSSI behaviors, mental health symptoms, coping behaviors, demographic factors, and counselor theoretical orientations among each individual more thoroughly to better inform counseling practice. The specific research questions for this study include the following: (a) How do NSSI behaviors change across time while in outpatient treatment? (b) How do coping strategies and psychological symptoms change in treatment while NSSI behaviors are changing? and (c) What theoretical orientations do counselors use with clients who engage in NSSI? In essence, what can we learn from these clients?

Method

In order to explore these questions, a multiple case study design using a holistic approach (Yin, 2014) was used to garner an understanding of the counseling process with more than one individual. Multiple case designs provide the ability for researchers to understand and explore factors and outcomes across cases, identify how each individual case or similar cases may be affected by context (e.g., counseling environments), and how specific factors or conditions may influence or occur within a case, and finally the ability to compare patterns across cases

(Edmonds & Kennedy, 2013; Yin, 2014). This exploration allows the ability of forming more general categories based on patterns or themes that may exist in behaviors, circumstances, or context to show how things may be related through demonstrating patterns across cases that may include more varied circumstances than just one single case (Chmiliar, 2010).

Participants

Eight clients (represented with pseudonyms) were included in the current study. This study was part of a larger study on NSSI among outpatient clients, which included both clients who did and did not self-injure. In the larger study of 32 clients, 13 (40%) reported engaging in NSSI behaviors at intake. Of these 13 clients, 8 completed intake and termination data and were included in this study. Therefore, the current eight clients in this case study are a convenience sample from the original study. Demographics for each of the eight clients are presented in Table 1. Among the eight clients, all were female, seven self-identified as Caucasian and one as Black/African American. This resembled the represented demographics of the participants from the full, original study ($N = 32$). Information was also collected from each client's counselor. A total of four different counselors worked with the eight clients (see Table 1).

Procedure

All data collected in this study were quantitative based on surveys provided to the client and the counselor. At intake, each client was presented with a packet and given the choice to participate in the study. For clients under the age of 18, legal guardians were provided with the survey packet for consent prior to having the minor youth assent. All packets were mailed directly to the first author. Clients were mailed follow-up survey packets at counseling termination. Once clients indicated they terminated counseling, their counselor was provided a survey packet to provide information on his or her clinical work with each client. No counselor received information regarding which clients participated in the study prior to termination in order to ensure confidentiality while the clients were in counseling.

In order to ensure the researcher did not influence client or counselor responses, the researchers were not a part of the outpatient mental health practice, nor had any contact with the clients throughout the study other than mailing them the client termination survey packet. Counselors were only contacted one time by the researcher, when clients terminated from counseling, through a postal mailing of the survey packet.

Instrumentation

Both clients and counselors received survey packets. Survey packets for the clients included (a) demographic form, (b) the Deliberate Self-Harm Inventory (DSHI), (c) the Brief Coping with Problems Experienced (Brief COPE), and (d) the Brief Symptom Inventory (BSI). Each is briefly described below.

Demographics form. All clients received a demographics form inquiring about their biological sex, age, race, education, previous counseling experience, reason and goal for counseling, and current medication. Clients were asked to provide their counselor's name.

DSHI. NSSI was measured using the DSHI (Gratz, 2001). The DSHI contains 17 items assessing specific methods used to self-injure. Respondents indicated if they engaged in the particular NSSI behavior (e.g., cut, burn; yes/no response) and the frequency of engagement (i.e., numerical input). The current study added an additional question to the DSHI for each NSSI method, asking participants about their engagement within the past 90 days (i.e., numerical input). This provided the ability to assess for the client's current frequency and number of methods used within 90 days of client response, providing better ability to assess changes in NSSI behavior. The original DSHI was found to have adequate reliability (Cronbach's $\alpha = .82$; test-retest reliability, $r = .92$) and construct validity measured through convergent validity with other self-harm measures (r ranged between .35 and .49; Gratz, 2001). This adapted version with added question regarding NSSI within 90 days of the DSHI has also been found to be reliable (Cronbach's $\alpha = .70$) and correlated with other measures of violence victimization being appropriately low ($r = .13$; Murray, Wester, & Paladino, 2008).

Brief COPE. Coping skills were measured using the Brief COPE (Carver, 1997). The Brief COPE consists of 28 items to which clients respond using a 4-point Likert scale (0 = *I usually don't do this at all*; 3 = *I usually do this a lot*). The Brief COPE consists of 14 coping styles with scale reliabilities above .71 (Carver, 1997). Researchers have combined the 14 separate subscales into 3 overarching scales (e.g., Carver, Scheier, & Weintraub, 1989; Wester & Trepal, 2010). For the purpose of this study, the three subscales were used. They included (a) problem-focused coping, (b) emotion-focused coping, and (c) avoidant coping. Problem-focused coping is aimed at the individual doing something to alter the source of the stress, while emotion-focused coping is aimed at reducing or managing emotion related to the problem (Carver et al., 1989). In the current study, the mean score for each of the three subscales was used to standardize the three scales on the same 0–3 scale.

BSI. The BSI (Derogatis, 1993) was used to measure psychological symptomatology. Rated on a 5-point Likert-type scale (0 = *not at all distressed*; 4 = *extremely distressed*), its 53 items reflect the respondents' distress during the previous week. Raw scores are transformed into standardized T scores for interpretation and comparison purposes (Derogatis, 1993). Forty-nine of the items measure nine specific types of problems: somatization, obsessive-compulsive problems, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The remaining items contribute to global indices of distress, including the global severity index (GSI), which is the indicator of the respondent's distress level (Derogatis, 1993). GSI greater than or equal to 63, or two or more subscales scores are greater than or equal to 63, is considered to meet criteria for diagnosis. This study utilized the nine problem domains and the GSI. The BSI has been found to be reliable (test reliabilities range: .68–.91; Derogatis & Melisaratos, 1983). Internal consistency ranges above .70 on all subscales (Boulet & Boss, 1991). The instrument has concurrent validity through correlation with subscales on the Minnesota Multiphasic Personality Inventory (Boulet & Boss, 1991) and the Positive and Negative Syndrome Scale (see Preston & Harrison, 2003).

Survey packets for the counselors included (a) demographic form and (b) the Theoretical Orientation Profile Scale–Revised. Each is briefly described below.

Demographics. Counselors were asked to report age, biological sex, race, primary profession, license, length of time practiced as a mental health professional, training in NSSI, and highest degree obtained on the demographics form. Counselors were also asked to provide information regarding the treatment they provided to the client, including the number of sessions, client goals and ability to reach the goals while in counseling, and the reason for termination.

Theoretical orientation and interventions. Counselors were asked to indicate what their primary theoretical orientation was in working with each specific client by completing a checklist. The list included, but was not limited to, cognitive-behavioral theory (CBT), person-centered theory, solution-focused theory, as well as an option that provided “other” and asked counselors to indicate the orientation they approached the client from. Counseling interventions were also assessed through a 33-item checklist (e.g., empty chair, scaling question, emotion regulation strategies, guided imagery, problem-solving skills, guided imagery, and play therapy) along with two open-ended responses for counselors to indicate other interventions they have used with their client that were not provided in the list.

Data Analysis

Data analysis was conducted through SPSS 23, with graphs being produced through Excel. Descriptive statistics and frequencies were utilized to answer the research questions. One of the goals in using more quantitative data was to generalize and inform existing theoretical models of NSSI (e.g., Nock, 2009). This includes the relevance of the theories but also areas in which counselors can begin to pinpoint in the existing models as a place to focus or influence treatment.

Results

The results of the data analysis are broken into the following sections that include NSSI history, methods used, and frequency; NSSI pairing analysis; and counselors’ theoretical orientation.

NSSI History, Methods Used, and Frequency

Onset of NSSI behavior ranged between 10 and 16 years of age, with the mode age being 13 years (see Table 1). The number of NSSI methods used at intake ranged from 1 to 11 ($M = 4.00$, $SD = 3.59$, mode = 2.00). The most common method used was carving words or pictures into one’s skin followed by scratching skin until it bleeds and sticking sharp objects into one’s skin and cutting. Six of the eight clients decreased in the number of NSSI methods or frequency used by termination, while two increased NSSI behaviors (see Figure 1). More specifically, Sam and Callie were the only two clients who extinguished NSSI behavior by termination. Extinguishment of NSSI behavior for these clients occurred within only a few sessions. Only two of the eight clients did not report to their counselor they engaged in NSSI behavior (25%; Kanika and Sam), while five clients did inform their counselor of NSSI (one counselor did not report whether their client informed them of NSSI behavior).

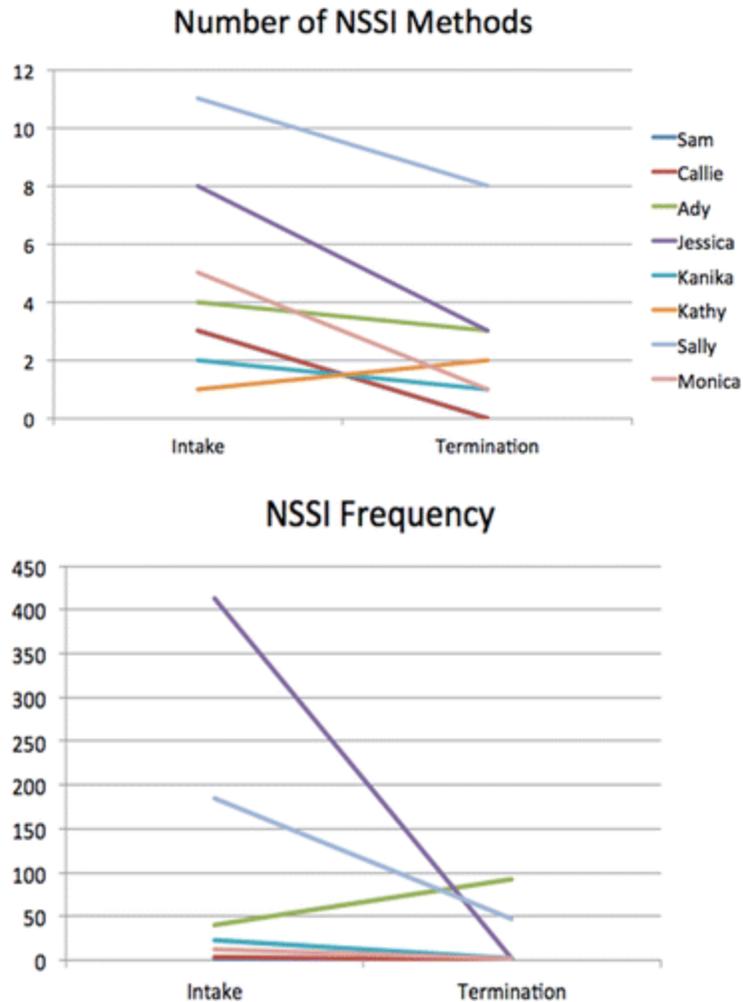


Figure 1. Nonsuicidal self-injury frequency and methods from intake to termination for each client in outpatient counseling.

In regard to NSSI methods used, seven clients reported decreasing the number of NSSI methods used from intake to termination but not extinguishing the behavior (see Table 1). While most clients reported only using one to three methods at termination, Sally reported still using eight methods to self-injure at termination; however, she decreased the methods used as she began counseling, reporting using 11 of the 17 methods to self-injure at intake. Only one client reported increase in the number of NSSI methods used. Kathy reported increase in the number of methods she used to self-injure, from one method at intake to two methods at termination.

When examining the NSSI frequency within 90 days of intake or termination, most clients decreased in frequency or the number of episodes (one client, Kathy, did not provide the NSSI frequency at termination). As mentioned above, with NSSI methods, Sam and Callie both extinguished the behavior, while other clients decreased in frequency of engagement. One client, Ady, increased her frequency of NSSI from 40 episodes of NSSI within 90 days prior to intake to 92 episodes at termination (ratio of 1.02 episodes per day).

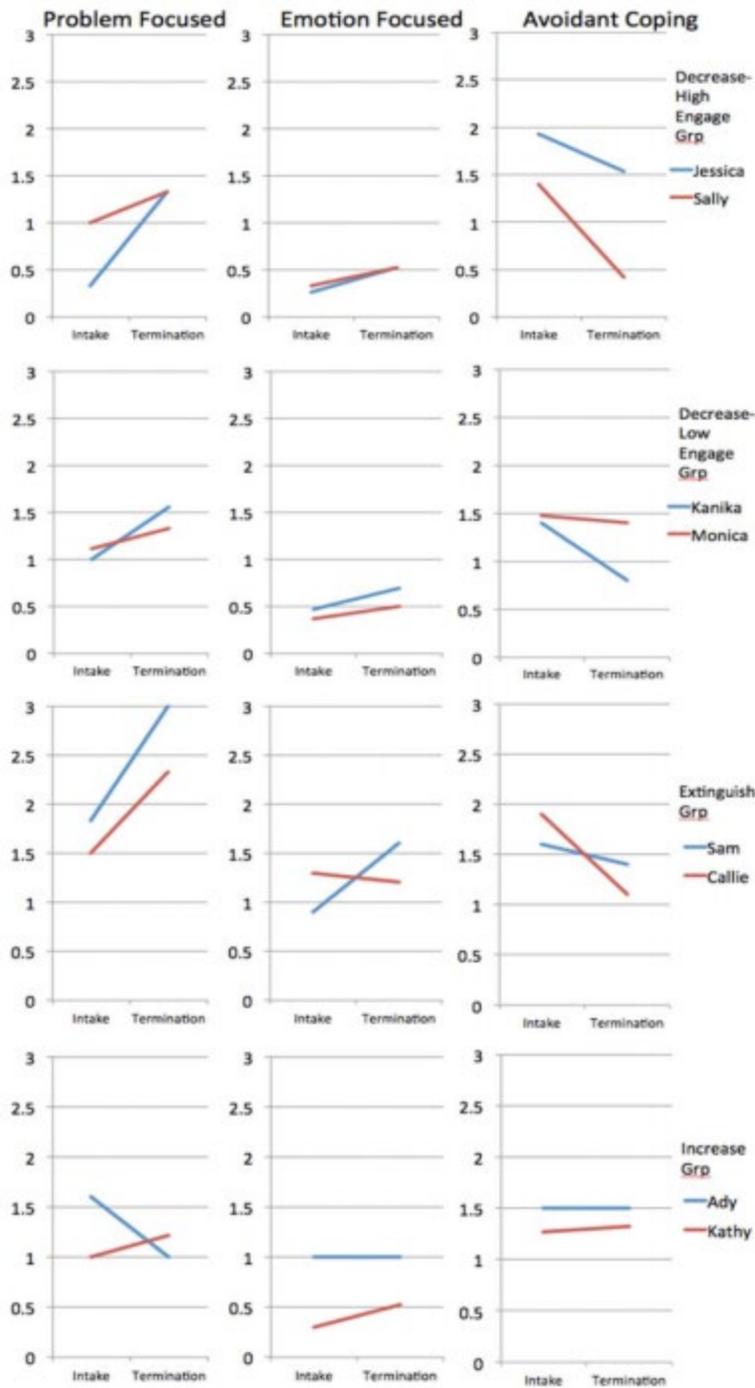


Figure 2. Avoidant coping, problem-focused coping, and emotion-focused coping from intake to termination for each client per nonsuicidal self-injury group.

NSSI Pairing Analysis

In order to gain a deeper understanding of what may have been occurring in counseling with these eight clients who may have showed increases or decreases in NSSI behavior, individuals were divided into four categories based on their NSSI behavior: (1) Sally and Jessica both

decreased in NSSI behavior but started counseling with high levels of engagement or number of methods (decrease–high engagement), (2) Monica and Kanika both had low engagement in NSSI behavior at intake and decreased while in counseling (decrease–low engagement), (3) Ady and Kathy both increased their NSSI behavior while in counseling (increase), and (4) Sam and Callie both extinguished their NSSI behavior by termination from counseling (extinguish). From this point forward, the results and discussion will more frequently refer to the pairings.

NSSI and coping. Each NSSI pairing had lower levels of emotion-focused coping than other forms of coping (see Figure 2). Sam and Callie (extinguish) were slightly higher on emotion-focused coping than other pairings; however, it was still less utilized than problem-focused and avoidant coping. In regard to avoidant coping, all clients who decreased or extinguished NSSI behaviors by termination of counseling decreased in their usage of avoidant coping strategies ($n = 6$). However, the two clients ($n = 2$) who increased NSSI behaviors slightly increased or remained the same in regard to their usage of avoidant coping strategies. For each client who decreased or extinguished NSSI behaviors by termination of counseling ($n = 6$), their use of problem-focused coping increased. Client reported scores changed from “usually don’t do this at all” at intake to “do this a medium amount” (0.5–1.5 Brief COPE mean score) at termination for the decrease–high engagement pairing (see Figure 1), while it increased from 1.5/2.0 to 2.3/3.0 (“do this a medium amount” and “usually all of the time” for the extinguish pairing). The usage of problem-focused coping still increased, but to a lesser degree, for the decrease–low engagement pairing, who reported higher levels of problem-focused coping by termination but remained using these strategies “a medium amount” (see Figure 1). The two clients ($n = 2$) in the increase NSSI pairing, however, either decreased (Ady) or only minimally increased their usage of problem-focused coping (Kathy, 1.00 at intake to 1.22 at termination).

NSSI and psychological symptoms. In regard to psychological symptoms on the BSI, the majority of clients entered counseling with high diagnosable levels of clinical symptoms on multiple scales (see Table 2). While some decreased by termination, the diagnosable levels of the BSI do not appear to differentiate clients across the various NSSI pairings as the number of diagnosable psychosocial symptoms was similar at intake and termination across groups. For example, as might be expected in the decrease–high engagement pairing both Sally and Jessica started off with clinical levels of 8–9 of the 10 scales examined at intake. This was similar to the number of diagnosable clinical levels found at intake among the two clients ($n = 2$) in the increase pairing (i.e., both Ady and Kathy reported eight psychosocial symptoms in the clinical level). However, this high level of clinical symptoms was also found at intake in one client in the extinguish group ($n = 1$; Sam reported eight symptoms in the clinical level), while Callie only reported four symptoms in the clinical level. The clients ($n = 2$) intake scores that seem to differ at intake was the decrease–low engagement pairing where Kanika reported no psychosocial symptoms in the clinical level, while Monica reported 6 of 10 in the clinical levels (see Table 2). Upon termination, however, the number of psychosocial symptoms experienced among clients in each pairing did not seem to differentiate between what occurred with NSSI behaviors. For example, Kanika and Monica did not decrease in the number of psychosocial symptoms reported in the clinical levels from intake to termination, yet they decreased NSSI behaviors by termination. Sam, one of the clients in the decrease–high engagement pairing, also remained at the same clinical levels she reported at intake (9 out of 10 symptoms in clinical levels) and termination, while Jessica (the second client in the pairing) decreased from 8 psychosocial

symptoms to 6 in the clinical level. As expected both Sam and Callie (clients in the extinguish pairing) decreased on the number of symptoms reported in the clinical level; however, so did Kanika and Ady (both clients in the increase pairing). Therefore, regardless of the decreases in clinical, diagnosable levels of psychosocial symptoms, it did not seem to differentiate between the various pairings who extinguished, decreased, or increased their NSSI behaviors. Similarly, the specific psychosocial symptoms reported in clinical levels were similar across pairings and clients.

Counselors' Theoretical Orientation

Finally, counselors' theoretical orientation used with clients was explored to determine whether there was a typical method that counselors used or what might seem to be effective in a natural setting (see Table 1). As shown in Table 1, in examining the specific counselor and NSSI behaviors, differences among counselors could not thoroughly be explored due to only four counselors and eight clients, with one client working with four of the eight clients. However, it is not that one counselor is necessarily effective with all clients who engage in NSSI, as one counselor (Counselor B) worked with four clients that represented three of the four categories, extinguish (1), decrease–low engagement (1), and increase (2). Counselor C worked with two clients, both of whom were in the decrease–high engagement NSSI behavior. Counselor A only worked with Sam from the extinguish pairing, and Counselor D only worked with Kanika from the decrease–low engagement NSSI pairing. While most counselors' utilized CBT with their clients or an eclectic approach, person-centered theory also was used (see Table 1). Different techniques used in counseling ranged from changing stated language (e.g., intake statements), to cognitive work (e.g., thought stopping), to creativity (e.g., expressive arts, music). Although it is difficult to come to conclusions more universally, given the small number of counselors and clients and the multiple case study design, it doesn't appear that one specific intervention influenced change in NSSI behavior more than another, as there was no specific technique used with clients in a particular NSSI pairing.

Discussion

It is important to note from these results that NSSI can decrease among clients while in counseling. This is evident in six of the eight clients in the current study and most notable in 25% ($n = 2$) of the clients, that is, Sam and Callie who extinguished NSSI behaviors by termination. The question becomes how and why did these two extinguish NSSI, as well as an additional four clients showed decrease in NSSI behaviors by termination of counseling? Of similar importance, why did two of the clients increase NSSI behaviors by termination? It is important to determine what may increase NSSI behaviors as NSSI has been found to be predictive of suicidal behavior (e.g., Asarnow et al., 2011; Glenn & Klonsky, 2009; Wester, Ivers, Villalba, Trepal, & Henson, 2015), particularly current NSSI engagement and methods explain 21% of the variance of suicidal ideation (Wester et al., 2015). Influencers that emerged in this case study and discussed in the narrative below include treatment times and methods, multiple diagnosable dimensions on the BSI, and NSSI and counselor theoretical orientation.

Treatment Times and Methods

Although the demographics, psychosocial symptoms, time in treatment, and treatment methods employed seemed to differentiate trends in the NSSI behaviors, this lends itself more so to the coping methods that appeared to vary between pairings. Taking a look first at the two clients who extinguished NSSI behaviors, Sam and Callie, both reported greater levels of problem-focused coping by termination of counseling. Additionally, while increasing their use of problem-focused coping strategies, Sam and Callie also decreased their use of avoidant coping strategies. Others who decreased their use of avoidant coping strategies were the four clients who decreased in NSSI behaviors (both high and low engagement pairings). However, the two clients who increased NSSI behaviors did *not* decrease in avoidant coping behaviors and had minimal or negative change in problem-focused coping behaviors. Therefore, it may be the intersection of increases in problem-focused coping and decreases in avoidant coping that best explain decreases in and extinguishment of NSSI.

The idea that coping behaviors are important in relation to NSSI behaviors is supported by researchers through hypothesized models or empirical cross-sectional data. According to Both Nock (2009) and Chapman et al. (2006), one of the reasons an individual engages in NSSI is intense aversive emotion that is unable to be regulated due to poor problem-solving abilities. According to other researchers, coping skills explain 17% of the variance in NSSI engagement (Wester & Trepal, 2010) and more specifically individuals who engage in NSSI are less likely to be utilizing problem-focused coping behaviors, and more likely to utilize avoidant coping strategies, than individuals who do not self-injure (Wester & Trepal, 2010). Nock and Mendes (2008) discovered those who self-injure and those who do not generate similar numbers of solutions to problems; however, self-injurers chose significantly more negative solutions to solve problems. According to Nock and Mendes (2008), self-injurers who selected more negative solutions was potentially having lower self-efficacy or belief that they could perform or engage in adaptive solutions. Although it is understood that coping does relate to NSSI behaviors, it has not been explored specifically in clients in treatment, nor multiple time points to determine how NSSI behaviors and coping behaviors change over time.

Breaking these behaviors down further, Stewart, Baiden, and Theall-Honey (2014) found that individuals in an adult inpatient mental health facility who self-injured were more likely to use alcohol and misuse prescription medication, both forms of maladaptive and avoidant coping. Moreover, individuals who self-injure reported lower levels of social connectedness and support (Rotolone & Martin, 2012; Wester et al., 2015), both of which can be considered forms of instrumental support. Thus, based on these findings, it may be important for counselors to further explore and encourage problem-focused coping, and decrease avoidant coping, in their treatment of clients who engage in NSSI behaviors.

One of the most effective treatments thus far in decreasing NSSI is DBT. DBT is an intensive treatment that consists of group therapy, individual therapy, phone contact, and postsession check-ins, along with family therapy at times. It was originally designed for clients diagnosed with BPD but has been found to decrease NSSI (a symptom of BPD diagnosis). It is still unclear as to which specific part of DBT actually works in decreasing NSSI behaviors, but it is assumed to work given that it contains a component focused on problem-focused coping behaviors (Tormoen et al., 2014). Therefore, DBT may be a possible treatment to implement. However, given the difficulties of implementing DBT in outpatient settings, given the intensive nature of

the treatment, it is not typically selected. Another treatment is a form of CBT that was developed for NSSI (Slee, Spinhoven, Garnefski, & Arensman, 2008), which includes 12 sessions specific to identifying and moderating NSSI behaviors, including understanding the functions of NSSI (e.g., social or emotional reasons). Some additional suggestions for enhancing coping strategies in counseling clients who self-injure include increasing the ability to identify and label emotions as most clients who self-injure suffer from alexithymia which can inhibit their ability to find coping methods to address their feeling if they are unclear as to what they are feeling (Muehlenkamp, 2006). Another suggestion is to find alternative ways to express emotions that are more adaptive, which may include walking clients through different coping strategies and having them utilize and practice them in session to ensure they are being used effectively. Working with clients to enhance their communication skills so that they can reach out for help and verbalize their emotions and their needs with others rather than resort to NSSI. And finally, increase their ability to tolerate distress and emotions so that they have adequate time to implement coping methods rather than feeling an intense immediate need to alleviate distress; this may include mindfulness training (Walsh & Rosen, 1988).

It was interesting to see that emotion-focused coping did not seem to shift much for any of the clients while they were in counseling. This could be due to the fact that self-injurious behavior is related to alexithymia (Cerutti, Calabrese, & Valastro, 2014; Swannell et al., 2012), the inability to identify or label emotions. If one is unable to identify emotions, they may be less likely to attempt to employ specific coping strategies to resolve that emotion or seek help from others regarding their emotional needs. However, this is also notable as NSSI is frequently used for regulation of intense emotion (Chapman et al., 2006; Nock, 2009; Wester & McKibben, 2016); therefore, emotion-focused coping can be considered important. Future researchers need to explore this relationship, seeing if alexithymia may relate to the lack of use of emotion-focused coping skills among individuals who self-injure.

Multiple Diagnosable Dimensions on the BSI

Almost all of the clients in the current case study, except one (Kanika), reported multiple diagnosable dimensions on the BSI. Most common (as noted in over half of the eight participants) appeared to be anxiety, depression, interpersonal sensitivity, obsessive-compulsive, hostility, paranoid ideation, and psychotic dimensions. This level of maladjustment or psychological difficulties was expected, particularly in regard to anxiety and depression, and its relationship to NSSI has been supported by many other researchers (e.g., Glenn & Klonsky, 2009; Selby, Bender, Gordon, Nock, & Joiner, 2012; Wester et al., 2015). However, researchers have not explored many other psychosocial symptoms and mental health concerns in relation to NSSI. BPD has been most frequently explored (e.g., Muehlenkamp, Ertelt, Miller, & Claes, 2011; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006); conversely, obsessive-compulsive, paranoid ideation, and psychotic symptomology have not been explored in great detail. One study conducted by Stewart et al. (2014) found that adolescents in an inpatient facility, who had schizophrenia and psychotic disorders, were actually less likely to self-injure than were youth without these diagnoses. This may be a difference among inpatient and outpatient findings, or due to measurement differences (BSI vs. noted diagnosis), but warrants further investigation. Although not exploring hostility in the sense of diagnosable behaviors, Murray, Wester, and Paladino (2008) found individuals who self-injured were more

likely to be in dating violence relationships as well as perpetrators of dating violence. This may speak to hostility in terms of symptoms or behaviors but may also speak to Nock's (2009) hypothesis that some individuals who self-injure do so for purposes of self-punishment. Regardless, the current case study findings of high levels of diagnosable dimensions on the BSI, thus high self-reported psychological symptoms by clients, match previous research findings but also shed light on additional areas to explore for counselors in sessions and researchers exploring predictive factors of NSSI engagement.

While the psychological symptoms reported by the clients at intake are at diagnosable levels, most clients did decrease in symptomology by termination. Almost half of the dimensions for all eight clients move from diagnosable symptom levels to moderate levels of psychological symptoms, with some dimensions still remaining clinically high. Although the change in symptomology is notable in that counseling is having an effect, this shift from clinically diagnosable at intake to nondiagnosable levels at termination does not appear to distinguish between the clients who extinguished, decreased, or increased NSSI behaviors. Only one potential pattern to note is that the two clients in the decrease-high engagement pairing, thus those who engaged at intake in high levels of NSSI behavior, reported more clinically diagnosable dimensions than other clients. As per Chapman et al.'s (2006) experiential avoidance model of deliberate self-harm, these two clients may have been experiencing higher levels of aversive emotions and stressful situations, without the ability to engage in effective coping strategies, resulting in higher usage of NSSI for temporary relief.

NSSI and Counselor Theoretical Orientation

Finally, it does not appear that one particular modality of counseling or treatment works better than others. While this is only a case study approach, and not generalizable to the larger population, various theoretical approaches (e.g., CBT, reality, and solution-focused) were used by all six counselors. It should be noted that counselors need to follow ethical guidelines when working with clients who self-injure and assess for imminent danger. Even more specifically, counselors need to be aware of their own values around self-harm and thus be careful not to impose their values on the clients. The idea that more than one theory works with decreasing or extinguishing NSSI behaviors supports the fact that there is not just one way to work with clients who self-harm; therefore, each client should be assessed and understood individually prior to determining a treatment plan (Wester & Trepal, 2005; White, McCormick, & Kelly, 2003).

Limitations

Some limitations need to be noted. First, this is a multiple case study design that arose post hoc from another study. Specifically, these 8 participants were selected from the larger 32 clients who participated in a larger study observing counseling. It was noted that six decreased in NSSI and two increased in NSSI behaviors, resulting in the "how" and "why" research questions to better understand what led to decreases and increases in NSSI behaviors. While this post hoc method is common and has been done in previous studies, it brings up more questions than it answers. Specifically, if these case studies were designed a priori, interviews with the client and counselor, along with video recordings of the counseling sessions, may have been part of the design to collect the necessary information to some of the questions that arise out of the findings

in this study. For example, interviews may have provided answers to why two individuals increased in NSSI behavior specifically, or video recordings of the counseling sessions may have provided what interventions in counseling best helped other individuals increase their usage of problem-focused coping. Regardless, the information provided in this case study supports existing models of NSSI (e.g., Nock, 2009), and combining the current findings with the existing findings in previous research studies (as noted in this “Discussion” section) provides insight into where the focus of counseling may need to be with individuals who engage in NSSI. Case study methodology provides a deep description of specific cases, which is beneficial to understanding and having implications for counseling and theory. The findings from this study support existing NSSI theories (e.g., Chapman et al., 2006; Nock, 2009) as well as support some of the existing literature regarding psychological symptoms and coping skills.

Implications for Future Research

Although the majority of researchers have found that NSSI behavior tends to decrease (e.g., Muehlenkamp, 2006), the findings from this case study reveal some clients may in fact increase in NSSI behaviors. This small percentage of clients who show increase in NSSI behaviors may be lost in more aggregate analyses. Therefore, future research needs to extricate and explore individual clients more specifically to determine changes in NSSI behaviors. Additionally, the causes of changes in NSSI behaviors have to further explored. Is it the changes in problem-focused and avoidant coping, or are there other factors that relate to decreases (and increases) in NSSI behaviors, such as decrease in alexithymia and increase in emotion regulation abilities? Larger studies need to explore changes in NSSI behaviors while in counseling to determine the practical significance and provide more generalizable results.

Conclusions

Although more is known about NSSI today than a decade ago, little has been done to explore the outpatient counseling. It is important to understand the impact of counseling on NSSI to better understand how NSSI changes in counseling as well as factors that seem to lead to these changes. While the main goal of counseling, for a specific client or counselor, may not be to decrease NSSI, it typically is to alleviate symptoms at minimum. The goal of counseling, and whether NSSI is a specific focus, is dependent upon the client as well as whether NSSI is life threatening by placing the client at risk of imminent danger (White et al., 2003). The findings and focus of this study were not to drive counselors to ensure they focus on NSSI as a clinical goal with clients but to simply explore the possible explanations and correlates of psychosocial stressors and coping skills that might connect directly to increases and decreases in client NSSI behavior. Findings provided insight and support for existing NSSI theories. Future research needs to delve further into problem-focused and avoidant coping. This fuller picture would help clinicians better understand the factors, such as emotions, thoughts, or other clinical symptoms, or coping strategies, that better explain or predict the behavior to understand where to focus one’s energy and primary interventions in counseling.

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Table 1. Client Demographic and Clinical Information

Client and Counselor Factors	Extinguish Pairing		Decrease-High Engagement Pairing		Increase NSSI Pairing		Decrease-Low Engagement Pairing	
	Sam	Callie	Sally	Jessica	Kathy	Ady	Kanika	Monica
Demographic								
Age	18	21	18	14	15	30	25	15
Race	White	White	White	White	White	White	Black	White
NSSI behavior								
Age Onset	16	13	10	13	13	“teens”	10	12
Methods (I)	3	3	11	8	1	4	2	5
	Carve words; carve pictures or other marks; scratch self	Carve pictures or other marks; scratch self; stick sharp objects in skin	Cut; burned self with cigarettes; burned self with other object; carved pictures or marks; scratched skin; carved words; rubbed glass in skin; banged head; punched self; pushed bottle cap into skin; stick sharp objects into skin	Cut; carve words; carve pictures or other marks; scratch self; bite skin; stick sharp objects in skin; rubbed glass into skin; prevent wounds from healing	Carve pictures of other marks	Carve words, carve pictures or other marks; scratch self; prevent wounds from healing	Cut; prevent wounds from healing	Cut; burned self with other object; carved words; carved pictures or other marks; stick sharp objects in skin
Methods (T)	0	0	8	3	2	3	1	1
			Cut; burned self with cigarettes; burned self with other object; carved pictures or other marks; scratched self; banged head; punched self	Cut; bite self; bang head	Carved pictures or other marks; scratched skin	Cut; carved words into skin; carved pictures or other marks	Prevent wounds from healing	Burned skin with cigarette
Counselor and clinical information								
Number of sessions	8	18	3	48	2	14	10	13
Goals	“Stop having hysterical episodes; begin to function normally; want to stop crying spells and feel in control”	“Want to develop better coping skills and figure out why I have anxiety attacks”	“To handle my behavior and outbursts”	“Self-esteem”	“Want to feel better; want to be a better person; stop being mad at the world”	“I honestly do not know”	“Eradicate eating disorder”	“Control anger”

Client and Counselor Factors	Extinguish Pairing		Decrease-High Engagement Pairing		Increase NSSI Pairing		Decrease-Low Engagement Pairing	
	Sam	Callie	Sally	Jessica	Kathy	Ady	Kanika	Monica
Reason in counseling	Voluntary	Involuntary	Voluntary	Involuntary	Involuntary (Court)	Voluntary	Voluntary	Voluntary
Reason terminated	Goals reached	Unknown	Terminated early	Goals reached	Terminated early	Terminated early	Other reason for termination (maternity leave)	Terminated early
Medication	1 Med: Celexa	No meds	4 Meds: Adderall, Inderal, Effexor, and Abilify	No meds	No meds	5 Meds: Topamax, Zoloft, Synthroid, Klonopin, and Adderall	No meds	1 Med: Effexor
Counselor	Counselor A	Counselor B	Counselor C	Counselor C	Counselor B	Counselor B	Counselor D	Counselor B
Counselor age (years)	29	43	25	25	43	43	53	43
Primary profession/license	Social work, LCSW	Counselor, LPC	Counselor in training (no license)	Counselor in training (no license)	Counselor, LPC	Counselor, LPC	Counselor, LPC	Counselor, LPC
Trained in NSSI?	No	Yes	No	No	Yes	Yes	Yes	Yes
Degree	MS	EdS	EdS	EdS	EdS	EdS	MS	EdS
Did client self-report NSSI?	No	—	Yes	Yes	Yes	Yes	No	Yes
Primary theory used with client	CBT	Combined: reality theory, solution focused, family systems	Person-centered	CBT	Combined: reality theory, solution focused, family systems	Combined: reality theory, solution focused, family systems	CBT	Combined: reality theory, solution focused, family systems
Techniques used	Expressive art, self-esteem training, cognitive restructuring, thought stopping	—	—	Behavioral homework, expressive art, music, self-esteem training, cognitive restricting, journaling, making “I” statements	Expressive art, learning alternative behaviors, cognitive restricting, making “I” statements, exploring nonverbals	Behavioral homework, self-esteem training, journaling, making “I” statements, guided imagery	Learning alternative behaviors, cognitive restructuring, early recollections, exploring conditions of worth, determining real versus ideal self, making “I” statements, using scaling questions	Self-esteem training, making “I” statements, exploring nonverbal, miracle question

Note. LPC = Licensed professional counselor; LCSW = licensed clinical social worker; NSSI = nonsuicidal self-injury; CBT = cognitive-behavioral theory; I = intake; T = termination; — = missing data, not reported by participant of counselor.

Table 2. Brief Symptom Inventory Subscale and Global Severity Index Scores

	Som		OCD		IS		Dep		Anx		Hos		PA		PI		Ps		GSI			
	I	T	I	T	I	T	I	T	I	T	I	T	I	T	I	T	I	T	I	T		
Extinguish pairing																						
Sam	66 ^a	41	74 ^a	37	73 ^a	57	73 ^a	41	64 ^a	37	71 ^a	55	45	45	65 ^a	44	71 ^a	42	61	41		
Callie	56	41	49	53	66 ^a	56	50	57	65 ^a	57	66 ^a	64 ^a	46	46	61	54	73 ^a	46	61	54		
Decrease–high engagement pairing																						
Sally	69 ^a	69 ^a	68 ^a	76 ^a	63 ^a	64 ^a	66 ^a	76 ^a	80 ^a	80 ^a	75 ^a	78 ^a	67 ^a	M	56	78 ^a	76 ^a	68 ^a	78 ^a	80 ^a		
Jessica	76 ^a	M	80 ^a	80 ^a	72 ^a	72 ^a	63 ^a	74 ^a	80 ^a	80 ^a	71 ^a	78 ^a	M	M	76 ^a	M	M	60 ^a	M	M		
Increase NSSI pairing																						
Kathy	66 ^a	59	64 ^a	60	66 ^a	59	68 ^a	62	54	48	66 ^a	59	60	55	65 ^a	42	73 ^a	58	68 ^a	58		
Ady	59	49	80 ^a	64 ^a	76 ^a	70 ^a	71 ^a	63 ^a	66 ^a	51	74 ^a	61	45	56	78 ^a	70 ^a	77 ^a	65 ^a	74 ^a	64 ^a		
Decrease–low engagement pairing																						
Kanika	55	55	46	49	52	45	49	45	45	41	61	55	38	47	60	61	55	55	52	50		
Monica	52	64 ^a	60	64 ^a	66 ^a	63 ^a	57	57	60	56	71 ^a	71 ^a	65 ^a	55	63 ^a	71 ^a	63 ^a	62	64 ^a	64 ^a		

Note. I = intake; T = termination; Som = somatization; OCD = obsessive-compulsive disorder; IS = interpersonal sensitivity; Dep = depression; Anx = anxiety; Hos = hostility; PA = phobic anxiety; PI = paranoid ideation; Ps = psychoticism; GSI = global severity index; M = missing data.

^a Dimensions 63 or above as scores of 63 on GSI or on two or more subscales result in cases considered diagnosable.