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ASSESSING THE SELF-CONCEPT CLARITY IN REPORTED PRECIPITANTS OF NSSI

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## ABSTRACT

The purpose of this study was to examine precipitants of Non-Suicidal Self-Injury (NSSI) in undergraduate students. Recent research has found that as rates of NSSI increase, reports of clarity in one's sense of self and identity have decreased. Defined as how clearly and stably one's beliefs about oneself are defined, research suggests that self-concept clarity is an important predictor for suicidal urges and NSSI. The present study aimed to assess the relationship between self-concept clarity, the ability for participants to identify a precipitant for self-harm, and the associated markers of severity of self-injury including methods used, physical state following self-harm, and necessity of medical intervention. It was predicted that individuals with poor sense of self will report more diffuse reasons for self-harm rather than a concrete precipitating event and will be more likely to engage in riskier self-harm with more severe outcomes. While neither of these hypotheses were supported by the study findings, results showed that individuals with poorer self-concept were more likely to engage in NSSI on the different day as the reported precipitating event and were more likely to have sought medical consultation following the self-injury. Furthermore, the concreteness of the precipitant was found to be associated with two markers of NSSI severity, namely dissociation occurring after the initiation of NSSI, and the number of cuts within one NSSI episode when the participant indicated cutting as their primary method of NSSI.

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## **Chapter 1**

### **INTRODUCTION**

#### **Overview of Non-Suicidal Self-Injury**

Non-Suicidal Self-Injury (NSSI) is defined as intentional damage inflicted on one's own body tissue, without the explicit intent to die, and not conducted for societally sanctioned reasons (Muehlenkamp, 2006; Klonsky, 2007). Within the literature, NSSI has commonly been referred to as Deliberate Self-Harm, (DSH; Pattison & Kahan, 1983) Deliberate Self-Injury (DSI; Klonsky, 2007) and Self-Mutilation (Walsh & Rosen, 1988), among other terms. NSSI can take a variety of forms, most commonly cutting, scratching or burning of the skin, head-banging, and punching objects with one's fist (Klonsky, 2007).

#### **Impact of NSSI**

A growing literature has shown that people who engage in self-harm have much more frequent and intense negative emotions than compared to those in the general populations (Klonsky, 2007.) As such, those who self-harm often report engaging in NSSI as a means of coping with strong negative affect, and indeed NSSI has been shown to offer short-term relief of negative feelings and tension immediately after an NSSI episode (Haines, Williams, Brain, & Wilson, 1995). Although the individual may see NSSI as an effective short-term coping strategy for intense negative feelings, a meta-analysis by Gratz et al. (2003) has shown NSSI to have both personal and familial costs including adverse psychological outcomes for not only those who self-harm, but their family, friends, and colleagues as well. Individuals engaging in NSSI show more negative affect and report increased feelings of guilt and shame after engaging in NSSI in

the long-term (Leibenluft et al., 1987; Shwartz, Cohen, Hoffmann, & Meeks, 1989), resulting in participants engaging in further NSSI. NSSI is thus often a chronic behavior, and studies on general high school adolescent populations have shown an estimated 6-7% reporting consistent NSSI within the past year (Whitlock, 2010; Whitlock, Eckenrode, & Silverman, 2006). The same studies have shown that over three quarters of those that self-harm report engaging in self-harm behaviors more than once.

Although an individual might not report lethal intent in an NSSI episode, an incidence of self-injury can still result in very harmful physical outcomes that can lead to hospitalization (Klonsky, 2007; Nock et al., 2006; Yen et al., 2004) or even accidental death. One function of NSSI is to deal with feelings of dissociation, or the state of feeling like one or one's surroundings are not real (Zweig-Frank, Paris, & Guzder, 1994). It has been reported and thus hypothesized that for those that self-harm engaging in NSSI during a dissociative state, they are relatively insensitive to pain, leading to engagement in NSSI to attempt to feel sensations as a way of interrupting the dissociative state. However, because these individuals are dissociating, they are at greater risk for hurting themselves more than they had intended (Russ et al., 1996; Kemperman et al., 1997). It has been found that hospital visits for NSSI have been steadily increasing (Ting, Sullivan, Boudreaux, Miller, & Camargo, 2012) and individuals that have been admitted into hospitals for NSSI one time have an estimated 12%-33% chance of readmission within one year (Mitchell & Cameron, 2018; Lilley et al., 2008).

Although NSSI is distinct from a suicide attempt in that an individual who engages in NSSI has no explicit intention to die from their self-harm, this can be difficult to assess when an individual's intent to die is ambiguous (Glenn & Klonsky, 2011). Both NSSI and suicide attempts share a strong correlation with suicidal ideation and it has been hypothesized by some

that NSSI and suicide attempts exist on a continuum of varying severity of suicidal ideation, (Brunner et al., 2007) and many individuals who engage in NSSI in adolescent samples report engaging in NSSI to help prevent them from initiating a suicide attempt (Nixon, Cloutier, & Aggarwal 2002; Laye-Gindhu & Schonert-Reichl, 2005). Although a subset of individuals engaging in NSSI never make a suicide attempt (Kessler, Borges, & Walters, 1999), there is evidence that engaging in NSSI is one of the most powerful predictors of a future suicide attempt (Perez, Ros, Folgado, & Marco, 2019; Klonsky, May, & Glenn, 2013; Asarnow et al., 2011). As many as 50% of individuals engaging in NSSI have also had a suicide attempt, and within clinical samples 70% report a suicide attempt (Muehlenkamp & Gutierrez, 2007; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). Individuals who engage in NSSI and have suicide attempts have been shown to be more likely to underestimate the lethality of their suicide attempts and are more likely to believe that they could be found, stopped, and saved during their attempt (Stanley, Gameroff, Michalsen, & Mann, 2001). Further, individuals who have a history of NSSI are twice as likely to complete a suicide attempt than individuals without NSSI history (Stone, 1989).

### **Prevalence of NSSI**

The age of onset for NSSI is frequently during adolescence, even as early as ages 13 or 14 (Whitlock, 2010; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). NSSI has been shown to be equally prevalent in both men and women (Klonsky et al., 2003; Whitlock et al., 2006), though women and girls are more likely to use cutting as their primary method of NSSI, whereas men and boys are more likely to hit themselves (Claes, Vandereycken, & Vertommen, 2006; Laye-Gindhu & Schonert-Reichl, 2005). A meta-analysis by Briere & Gil (1998) has found reports of NSSI to be highly prevalent in clinical samples of adults (19%-25%).

An even higher percentage of adolescents report engaging in NSSI in clinical samples with prevalence rates as high as 40%-60% (Nock et al., 2006; Nock, 2009) and populations with borderline personality disorder show NSSI at rates as high as 70.8% (Zanarini et al., 1990).

### **Borderline Personality Disorder and NSSI**

Borderline personality disorder (BPD) is a debilitating disorder characterized by affective instability, impulsivity, relational instability, identity confusion, and suicidality (American Psychiatric Association [APA], 2013). BPD has been shown to be highly prevalent in clinical populations with an estimated 9%-14% of psychiatric outpatients having a BPD diagnosis (Zimmerman & Mattia, 1999; Zimmerman, Rothschild, & Chelminski, 2005), but has been shown to be prevalent in general populations as well (0.5%-5.9%; *mdn* 2.2%; Lenzenweger, Loranger, Korfine, & Neff, 1997; Samuels et al., 2002; Crawford et al., 2005; Grant et al., 2008). In a study of 120 BPD patients by Zanarini et al. (1990) it was shown that as many as 70.8% of patients with BPD engage in NSSI and a later meta-analysis by Kjellander, Bongard, & King (1998) reported a large literature showing prevalence between 69%-75%. One of the principal symptoms of BPD has been proposed to be affective instability (Koenigsberg et al., 2002). Affective instability is characterized by marked, often quickly occurring, shifts in mood such as between irritability, depression, and anxiety (DSM-5; American Psychiatric Association, 2013). Affective instability in BPD can lead to intense negative emotions from interpersonal or intrapersonal events that are hard to cope with, especially when an individual has identity disturbance (Beeney, Hallquist, Ellison, & Levy, 2016).

### **The Role of Identity Disturbance and Self-Concept Clarity in NSSI**

One of the central aspects of BPD is identity disturbance. Identity disturbance is characterized by a lack of clear representations or sense of self and others, particularly over time.

Identity disturbance is thought to be integral to the development and maintenance of BPD, and has shown strong predictive power of a BPD diagnosis, as well as continued BPD symptoms over time (Clarkin, Hull, & Hurt, 1993; Garnet, Levy, Mattanah, Edell, & McGlashan, 1994). It is hypothesized that Identity disturbance interferes with effectively reconciling conflicting information about self and others, and is believed to cause dramatic instability in interpersonal relationships and self-concept as a result (Kernberg, 1984).

Closely related to the idea of identity disturbance is the concept of Self-Concept Clarity (SCC). SCC is defined as the ability for an individual to clearly define aspects of their identity, have beliefs regarding themselves be internally consistent, and stable over time (Campbell, 1990). SCC is thus associated with the integration of many different ideas one might have about themselves, or self-beliefs, into a well-organized and cohesive identity. Individuals with high SCC can be said to have ideas about themselves that are clearly defined, consistent, and stable, and are thus able to effectively and predictably process and interpret self-relevant information. As noted by a number of authors, including Erikson (1968) in his classic book on Youth, Identity, and Crisis, a stable identity is critical for intrapersonal and interpersonal functioning, as well as overall psychological wellbeing.

A number of empirical studies have found that a lack of SCC, or identity disturbance, has been shown to be strongly associated with engagement in NSSI (Yen et al., 2004; Claes, Luyckx, & Bijttebier, 2014; Lear & Pepper, 2016) and a strong predictor of NSSI urges (Scala et al., 2018), and it has recently been shown in a sample of patients presenting with eating disorders that the degree of self-concept clarity is inversely related to the number of NSSI events (Claes et al., 2015). Many studies have aimed to elucidate the relationship between NSSI and identity disturbance. Breen, Lewis, and Sutherland (2013) examined online narratives of self-harmers on

self-harm discussion boards, looking for themes regarding identity disturbance and found that NSSI may constitute as a form of identity for those with identity diffusion. People engaging in NSSI often reported identifying as “self-harmers,” implying that self-harm may function as a back-up identity at times when their identity may not seem clear.

A recent study (Scala et al., 2018) has shown through momentary ecological assessment study that lower levels of self-concept clarity is predictive of NSSI urges. This study is important because it clarified the roles of negative affect and self-concept clarity in predicting the urge to self-injurer. Whereas there was a main effect for negative affect to predict such urges, it was moderated by lower levels of self-concept clarity. Negative affect only predicted urges when the individual was in a low self-concept state. Thus, in the absence of a clear sense of self, the experience of negative affect may be more difficult to tolerate and leads to increase risk of urges to engage in self-injury. Good SCC appears important in modulating strong negative affects. When SCC is low and insufficient, negative affects may be more overwhelming leaving the person vulnerable to urges to self-injurer. Although it has been clearly shown that lower SCC predicts engagement in NSSI, and that low momentary SCC predicts NSSI urges, what remains unknown is the connection between SCC and understanding of the precipitating events that may lead an individual to engage in NSSI.

### **Precipitants of NSSI**

Understanding the reasons or precipitants for engaging in NSSI is essential to its prevention. Individuals who engage in NSSI report engaging in NSSI for a variety of different reasons. In a study of 710 adolescents hospitalized after an NSSI episode, it has been found that individuals most often report difficulties in their relationships with their family members, close friends, or romantic relationships as well as difficulties with school or work (Hawton & Harriss,

2008). When individuals with BPD have strongly negative interpersonal or intrapersonal events, such as a poor exam grade or interpersonal conflict, they are likely to experience higher levels of guilt or shame compared to the general public (Rüsch et al., 2007). This high level of shame can lead an individual to feel the need to punish themselves. NSSI can thus be used to satisfy this aim, and it has been found that the events that have been shown to precipitate NSSI also precipitate feelings of shame (Herpetz, 1995). Brown et al. (2009) looked at shame as a precipitating emotional factor of NSSI in relation to specific precipitating events in 57 individuals with BPD. While the study did not find that shame strongly predicted NSSI, the results suggested that many types of strong negative affect, including shame, sadness, and anger resulting from interpersonal or intrapersonal events, or precipitants, may play an important role in the initiation of NSSI.

There have been several recent studies that assess precipitants of incomplete suicide attempts that provide some insight to the variable clarity of such precipitants. Consistent with what has been found to be most common reasons for engaging in NSSI, a retrospective analysis of suicide attempts in 2,232 patients in Turkish emergency rooms, reported precipitants of suicide attempts have been found to be most commonly conflicts within an individual's family (43%), conflicts with significant others (13.6%), or intrapersonal problems (19.7%), but 8.2% indicated their precipitant was unknown (Akkaya-Kalayci et al., 2018). As many as 54.5% of patients in a psychiatric hospital following a suicide attempt provided a concrete interpersonal conflict that precipitated their suicide attempt (Stulz et al., 2018). However, 25.8% of that sample could not provide any specific precipitating events of their suicide attempt, and instead reported that their suicide attempt was just an accumulation of many different problems they were having or were related to general and diffuse feelings.

The findings reported earlier regarding the role of SCC in predicting NSSI and urges suggests that some individuals who engage in NSSI might be able to provide clear and elaborated understanding of the events and thought processes that precipitated an episode of NSSI, whereas others may not have a clear understanding of what specifically triggered their NSSI event. If reported precipitants of NSSI vary in clarity and specificity, it is important to determine what factors influence this phenomenon to aid treatment. Patients reporting diffuse precipitants for suicide attempts, or episodes of NSSI, can lead to difficulties in treatment of the behavior as a therapist cannot clearly identify issues in a patient's life that can be addressed in order to understand the patient's NSSI, and prevent continued NSSI. Variability in clarity and specificity of NSSI precipitants could be a result of a couple of key differences in those who self-harm, specifically poor self-concept clarity.

### **Aims of the Present Study**

The present study aims to assess the relation between self-concept clarity, the ability for participants to identify precipitants for self-harm, and the severity of self-injury associated with the clarity of precipitants in undergraduate students. Although prevalent in clinical samples, NSSI is prevalent in general populations as well. A study on 390 high school students has found 15.9% of adolescents have a history of at least one NSSI event (Muehlenkamp & Gutierrez, 2011), and NSSI prevalence rises to 35% in young adult samples, as seen in a sample of 159 college students (Gratz, 2001).

In previous research on classes of individuals who engage in self-harm, Temes (2013) used a novel self-report measure to assess severity of NSSI by asking participants which methods they use, as some methods are shown only in more severe forms of NSSI, as well as the number of times the participant has engaged in the behavior, and if the most recent engagement in NSSI

lead to any necessary treatment. These assessments of NSSI severity, along with other contextual factors of NSSI such as functions and levels of BPD pathology, proved instrumental in identifying four latent classes of individuals engaging in NSSI for different reasons, with different frequencies and severities. Based on this research, the severity of self-injury was assessed in the present study by the methods used, psychological and physical state following self-harm, and type and level of medical intervention necessary (e.g., ambulance, ER visit, hospitalization, stitches, and medications).

**Hypothesis 1:** Based on previous research suggesting that self-concept clarity predicts NSSI and NSSI urges, it was hypothesized that lower levels of self-concept clarity relate to reports of precipitants. Specifically, those with lower levels of self-concept clarity will report more diffuse reasons for self-harm rather than a concrete or specific precipitant.

**Hypothesis 2:** Lower levels of self-concept clarity and more diffuse understanding of precipitants will be related to more frequent engagement, riskier self-harm behaviors, and more severe outcomes, such as more severe damage to body tissue (e.g., deeper cuts, higher degree of burn, etc...), increased likelihood of needing medical intervention, and psychological dissociation.

## Chapter 2

### METHOD

#### Participants

Participants were 94 undergraduate students at the Pennsylvania State University recruited as volunteers for course credit from introduction to psychology courses. As seen in Table 1, the sample was predominately women (85.1%), heterosexual (71.3%), White (66.0%), and not married (100%). The average age of the sample was 18.82 (range: 18-28; SD = 1.62).

#### Measures

**Functional Assessment of Self-Mutilation** (FASM; Lloyd, Kelley, & Hope, 1997). The FASM is a self-report measure that accesses the frequency, methods, and function of NSSI. The FASM asks participants to indicated whether they have used a variety of specific NSSI methods within the past year (e.g., “cut or carved on your skin,” “hit yourself on purpose,” “burned your skin,” etc...) and how many times each method has been used. The FASM also asks additional questions such as “if not in the past year, have you EVER done any of the above acts,” “did you experience pain during this self-harm,” “how old were you when you first harmed yourself in this way,” and “did you harm yourself for any of the reasons listed below (e.g., “to avoid school, work, or other activities,” “to relieve feeling “numb” or empty,” etc...). In previous research the FASM has been found to have adequate internal consistency ( $r = .65-.66$ ; Lloyd, Kelley, & Hope, 1997). In the present study, the FASM functioned as a screening measure to identify participants with a history of NSSI in order to confirm eligibility for the study.

**The Suicide Attempt Self-Injury Interview** (SASII; Linehan, Comtois, Brown, Heard, & Wagner, 2006). The SASII is a 42-item structured clinical interview developed for research regarding the actions and contextual factors surrounding a specific NSSI event. The interview asks participants to recall the total number of NSSI events and suicide attempts in their life, and to provide specific dates for each event as accurately as they can.

The interview then asks participants to provide details regarding their most recent NSSI event including the exact methods and instruments used to self-injure, the extent to which they self-injured within the episode, their physical state afterwards, contextual factors leading up to the self-harm, such as a precipitating event, the impulsivity of the event, dissociation, emotional states before and following the NSSI event, potential places visited afterwards for physical or emotional treatment (e.g., physician/nurse, crisis/outreach, hospital emergency room, etc...), and potential outcomes on self, relationships with others, and performance in work or school. Sample items include “tell me again/describe exactly what method(s) you used to injure yourself,” “at the time of your self-injury/suicide attempt/overdose, what final outcome did you most intend and expect,” “did you plan your self-injury/suicide attempt/overdose, or was it an impulsive act,” “following your self-injury/suicide attempt/overdose were you taken to any of these places or did you turn to any of these places or people for help,” and “were you feeling disconnected from your feelings or as if you were unreal during or prior to your self-injury/suicide attempt/overdose?” Based on the information provided by the participant in the interview, the interviewer makes several coding judgments such as their physical condition afterward (e.g., no effect, mild effect, etc...) and their medical risk of death (e.g., very low, low, moderate, high).

One specific question of the SASII asks participants “if you had to pick one thing that you think most triggered your self-injury/suicide attempt, what would you say it was?” If

participants struggle to provide a precipitating event, interviewers are trained to carefully probe to help the participant remember details regarding the period during which they self-injured until the interviewer is certain the participant cannot provide a clear precipitant. Participant answers are recorded verbatim by the interviewer and were coded based on their clarity and specificity.

In previous research the SASII has been shown to have high inter-rater reliability (ICCs ranging from .87 to .98; Linehan et al., 2006). The SASII has also been shown to be a valid assessment of NSSI severity and subsequent physical condition, with ICCs of .85 for lethality of the NSSI event and .93 for physical condition comparing scores given by nonmedical interviewers and medical professionals found in the same research study. The SASII has further been shown to be a valid measure of NSSI events in comparison to diary entries (ICC = .91) and therapy notes (76% agreement of exact number of NSSI events; 83% agreement of presence of NSSI history; (Linehan et al., 2006)).

The present study was specifically interested in the total number of NSSI events, total number of NSSI events in the past year, methods of NSSI, number of cuts if cutting was indicated as the main method, physical condition afterwards, medical risk of death, medical treatment afterwards, dissociation after the NSSI event, and the precipitating event.

**The McLean Screening Instrument for BPD** (MSI-BPD, Zanarini et al., 2003). The MSI-BPD was originally created as a ten item self-report measure based on the diagnostic criteria of BPD, as outlined in the DSM-IV. Each item corresponded to one criterion of BPD, with two items corresponding to the stress-induced paranoia or dissociation. The participant responds to each item with true or false, and true is coded as a 1 and false coded as a 0. The items are summed for a total score from 0-10. The measure has been shown to have good test-retest reliability (Spearman's  $\rho = .72$ ,  $p < .0001$ ) and scores of seven or greater on the MSI-

BPD have been shown to be predictive of Borderline Personality Disorder (sensitivity = .81, specificity = .85; Zanarini et al., 2003). The MSI-BPD has been modified to have 24-items coded on a 4-point likert scale (0=False, not at all true, 3=Very true) in order to allow participants to respond to more specific questions with more of a range of potential feelings. Research within the lab has shown this modified version of the MSI-BPD has been shown to have the same predictive validity as the original measure (Temes, 2012; Scott, Levy, Adams, & Stevenson, 2011). In the present study, total scores on the MSI-BPD were correlated with measures of NSSI severity, as well as the average scores of the two self-concept clarity items (“I have often felt that I have no idea of who I am” and “I have often felt that I have no identity”) taken alone.

**The Self-Concept Clarity Scale (SCCS;** Campbell et al., 1996). The SCCS was developed to assess the participants perceived self-concept clarity and stability, or how cohesive, confident, and temporally stable the participant sees their attributes. The measure includes 12 questions rated on a 5-point likert scale. The measure aims to assess if the self-beliefs of the participant are clearly defined (e.g., “I spend a lot of time wondering about what kind of person I really am”), internally consistent (e.g., “my beliefs about myself often conflict with one another”), and temporally stable (e.g., “my beliefs about myself seem to change very frequently”). Items 6 and 11, “I seldom experience conflict between the different aspects of my personality” and “in general, I have a clear sense of who I am and what I am,” respectively, are reverse coded so that high scores on the SCCS indicate high levels of identity disturbance, or poor self-concept clarity. The items of the SCCS have been shown to have high internal consistency ( $\alpha = .86$ ) and adequate test-retest reliability ( $r = .70$ ), and are predictive of self-esteem ( $r = .61$ ).

## Procedures

### **The Pennsylvania State University Psychology Department Subject Pool Recruiting.**

A total of 2935 undergraduate students participating in the Pennsylvania State University's Psychology Department subject pool for credit in their psychology class participated in a mass screening conducted by the lab for credit in their psychology class. Students not willing to participate in research are offered alternative means to fulfill the necessary requirements for their course.

The mass screener collected basic demographic information, scores on the Functional Assessment of Self-Mutilation (FASM-R; Lloyd, Kelley, & Hope, 1997), McLean Screening Instrument for BPD (MSI-BPD; Zanarini et al., 2003) and contact information if the student consented to be contacted for further research studies for additional subject pool credits. Participants were excluded if their self-report responses were invalid, such as no variability in scores between measures, inconsistent endorsement of self-harm, scored below a 3 ("mostly true") on the item "I have answered all of these questions honestly and to the best of my ability," or endorsed responses of infrequency items such as "I eat cement occasionally" and "I can teleport across time and space" that would indicate invalid responding. A total of 625 participants were excluded from the study for invalid responding. Of the remaining 2310, 330 individuals endorsed a history of self-harm. Of these 330, a total of 94 eligible and interested participants came into the lab to complete the study.

**Penn State Psychological Clinic Recruiting.** Patients with a diagnosis of Borderline Personality Disorder receiving treatment through the Penn State Psychological Clinic, a large, university-affiliated, community mental health center, were invited to participate in the study with brochures presented upon initial intake evaluation within the clinic. Patients were offered

monetary compensation at the rate of \$12 per hour and were ensured that not participating in the study would not prevent them from receiving any benefits received otherwise through treatment. Nine participants aged over 18, indicating a history of at least one NSSI event or suicide attempt, and willing to participate were scheduled a time to come into the lab to complete the study.

**The Interview.** Participants provided informed consent, completed a battery of self-report measures, including the MSI-BPD and the SCCS, and conducted the video-taped SASII interview with a graduate student or an undergraduate research assistant with thorough training with the principle investigator of the study. Participants were notified that they did not need to answer any questions they did not want to and could cease participation in the study at any time. The study typically took between 1-2 hours to complete. Upon completion of the study, the interviewer ensured the participant's emotional well-being and participants were provided with a debriefing form with some of the study's primary goals, contact information for the principal investigator of the study, as well as on-campus psychological resources in case the participant needed to discuss any distress that may have arisen due to the sensitive nature of the topics discussed in the interview. Participants were compensated for their time with either subject pool credits or monetary compensation.

**Data Analysis.** Of the 103 total participants in the study, three participants were excluded from analyses for not having an NSSI event in the SASII. Six participants were excluded from analyses for not having completed the Self-Concept Clarity Scale (SCCS), leaving a total of 94 participants included in the final data analyses.

The precipitants were coded by two independent coders as a concrete precipitant, or more abstract, diffuse reasons for self-harming based on a novel coding scheme. Responses with one to two clear events precipitating the NSSI event were coded as concrete precipitants, while

responses with several vague events precipitating the NSSI event, or no clear events precipitating the NSSI event were coded as abstract, diffuse reasons for self-harming. Exact events such as “I broke up with my boyfriend” or “had an argument with my parents” were coded as a concrete precipitant and more diffuse reasons or general emotional states without specific precipitants such as “an accumulation of all of my feelings” or “my depression” were coded as abstract. This coding scheme was shown to have excellent inter-rater reliability ( $\kappa = .866$ ; McHugh, 2012). Cases in which there was disagreement were resolved between coders. One case had an ambiguous entry in the data, and the videotape of the SASII interview was consulted. Relations between the variables of interest were assessed with bivariate correlation analyses as well as t-tests for between group mean differences.

## Chapter 3

### RESULTS

#### Descriptive Statistics

**NSSI Characteristics.** As seen in Table 2, participants reported a wide range of lifetime number of NSSI events and specific NSSI methods. Participants reported between 1 to 5,290 ( $M = 155.14$ ;  $SD = 618.27$ ;  $mdn = 16$ ) lifetime NSSI events, and between 0 to 963 ( $M = 21.31$ ;  $SD = 123.38$ ;  $mdn = 1$ ) NSSI events in the past year. The majority of NSSI events were reported to be deliberate (90.4%), however some participants reported semi-deliberate (8.5%) or accidental (1.1%) NSSI.

Consistent with the large body of literature on NSSI, the most commonly reported NSSI methods were cutting and scratching (71.3%), with hitting one's body being the second most common (10.6%). For those indicating cutting as their method of NSSI, the number of cuts in one episode ranged from 1 to 200 ( $M = 17.24$ ;  $SD = 37.38$ ;  $mdn = 6$ ) and the majority of participants had cuts without tendon or nerve damage (77.1%), though some only had scratches (17.1%) or no tissue damage at all (5.7%).

The physical outcomes of the specific NSSI events are outlined in Table 3. Most participants reported an NSSI event with a very mild (e.g., a rash, abrasion, bruise, etc...; 40.4%) or mild (e.g., 1<sup>st</sup> degree burn, superficial cuts without tendon or nerve damage and not requiring sutures, minimal blood loss, etc...; 47.9%) but some had a moderate effect (e.g., lacerations with some tendon or nerve damage requiring sutures, 2<sup>nd</sup> degree burns, etc...; 6.4%) or no effect at all (4.3%). Most participants' NSSI event had a low (e.g., superficial cut on limbs; 62.8%) or very

low (e.g., scratching or head banging; 28.7%) medical risk of death, but some had a moderate (e.g., deep cuts anywhere but neck; 7.4%) or very high medical risk of death (e.g., deep cuts to throat or neck, igniting flammable liquid all over body, drowning, etc...; 1.1%). Ten participants reported feelings of dissociation occurring after initiating NSSI (10.6%), thirteen participants before (13.8%) and two participants were not sure but indicated that they might have (2.1%). Most participants did not seek medical treatment following their self-injury (93.5%), but three participants indicated visiting a physician/nurse, one needed paramedics and/or an ambulance, and four were hospitalized. Nine participants (9.6%) indicated contacting a crisis outreach or mental health professional, and three became inpatients at a psychiatric hospital.

#### **Participant Self-Concept Clarity, BPD Pathology, and NSSI Precipitants.**

Participants reported varying degrees of SCC with scores on the SCCS ranging from 18-58 ( $M = 38.70$ ;  $SD = 9.85$ ). Averages of the two identity items of the MSI-BPD ranged from 0-3 ( $M = .923$ ;  $SD = 1.03$ ). Participants also had varying degrees of BPD pathology, with average scores on the modified MSI-BPD ranging from .14-2.14 ( $M = .97$ ;  $SD = .53$ ). 58 participants (61.7%) provided a concrete precipitant of their NSSI event while 36 participants (38.3%) provided diffuse reasons for engaging in NSSI. Additionally, 79.8% of participants reported engaging in self-injury on the same day as the reported precipitating event, while 18.1% of participants reported a precipitant on a different day than their NSSI event.

#### **Self-Concept Clarity and NSSI Severity**

Bivariate correlations were conducted between scores on the SCCS, MSI-BPD, SCC items of the MSI-BPD and markers of NSSI severity and frequency and can be seen in Table 4. Scores on the SCCS were not associated with the number of lifetime NSSI events or NSSI events in the past year. Scores on the SCCS were also not significantly associated with any of the

associated markers of severity, such as methods used, physical outcome, medical risk of death, or impulsivity. However, it was found that participants with greater levels identity disturbance were less likely to have visited a nurse or physician after their NSSI episode ( $r = -.204, p < .05$ ). The means of SCCS scores were compared between the groups of self-harmers who visited a physician/nurse ( $N = 3$ ) and those who did not ( $N = 91$ ). As seen in Table 5, it was found that the group who visited the physician/nurse had on average, lower identity disturbance ( $M = 27.67$ ;  $SD = 10.60$ ) than the group who did not visit a physician/nurse afterwards ( $M = 39.07$ ;  $SD = 9.67$ ;  $t = 2.00$ ;  $p < 0.05$ ). No notable correlations were found between markers of severity with the MSI-BPD, or the average of the SCC items of the MSI-BPD.

### **Clarity of NSSI Precipitants**

The coding of precipitants as concrete or abstract was not significantly related to scores on the SCCS. As seen in Table 6, it was found that the group with a concrete precipitant had on average, similar scores on the SCCS ( $M = 38.60$ ;  $SD = 9.77$ ) as the group reporting diffuse reasons for self-harming ( $M = 38.86$ ;  $SD = 10.114$ ;  $t = .123$ ). However, it was found that whether the precipitant occurred on the same day as the NSSI event was related to scores on the SCCS ( $r = -.287$ ;  $p < .001$ ). The means of SCCS scores were compared between the groups of self-harmers who identified a precipitant occurring on the same day as the NSSI event assessed ( $N = 75$ ) and those who identified a precipitant on a different day from the NSSI event assessed ( $N = 17$ ). As seen in Table 7, it was found that the group with a same-day precipitant had on average, lower identity disturbance ( $M = 36.95$ ;  $SD = 9.27$ ) than the group with a different-day precipitant ( $M = 46.47$ ;  $SD = 7.87$ ;  $t = 3.92$ ;  $p < 0.001$ ).

The concreteness of the precipitant related to a couple of indicators of NSSI severity. First, the relationship between the concreteness of the precipitant and the number of cuts within a

cutting event of NSSI was approaching significance ( $r = -.26$ ;  $p = .06$ ). The number of cuts within NSSI events were compared between the groups of self-harmers who identified a concrete precipitant and those who provided an abstract reason for engaging in NSSI with cutting as the primary method of NSSI ( $N = 67$ ). As seen in Table 8, it was found that the group with a concrete precipitant had cut themselves fewer times within an NSSI event ( $M = 9.00$ ;  $SD = 12.69$ ) than the group with abstract reasons for engaging in NSSI ( $M = 28.62$ ;  $SD = 53.93$ ;  $t = 1.90$ ;  $p=0.06$ ). Second, the more diffuse the precipitant was also related to feelings of dissociation occurring after the initiation of an NSSI attempt ( $r = -.21$ ;  $p<.05$ ).

## Chapter 4

### DISCUSSION

The purpose of this study was to evaluate the clarity and specificity of reported precipitants for specific NSSI events in relation to the self-harmer's SCC and the overall severity of their NSSI event. In recent studies on precipitants of suicide attempts, a disparity in clarity and specificity has been shown, with some individuals having clear precipitating events, while others do not (Akkaya-Kalayci et al., 2018; Stulz et al., 2018). One potential explanation for this is hypothesized to be differences in the SCC of participants. It has been shown that the lack of SCC in BPD individuals is a key predictor of urges to self-injure and engagement in NSSI (Yen et al., 2004; Claes, Luyckx, & Bijttebier, 2014; Scala et al., 2018). Identity disturbance, or the lack of SCC, often manifests in a difficulty providing details about oneself that are clear and concise, internally consistent, and temporally stable. This lack of SCC, particularly in individuals with BPD, results in an inability to integrate conflicting information about their selves or others (Kernberg, 1984) and as such, a lack of SCC could further explain vague or abstract reported precipitants for NSSI severity.

Based on the literature, it was hypothesized that individuals with lower levels of self-concept clarity will report more diffuse reasons for self-harm rather than a concrete or specific precipitant and would be more likely to engage in more frequent and riskier self-harm with more severe outcomes. Contrary to the first hypothesis, the study did not find a significant relationship between the SCC of participants and the clarity of their reported precipitant. Regarding the second hypothesis, the study did not find a significant relation between SCC and total number of NSSI events or any of the markers of NSSI severity.

The study did not find any significant relationship between the coded clarity of reported NSSI precipitants and scores on the SCCS. However, the present study examined relationships with SCCS scores reported on the day of their interview, rather than immediately before the NSSI event. It has been shown in a previous study that a sample of 1,079 individuals with BPD showed more unreliable scores on self-report measures across different assessments than did healthy controls (Hopwood & Morey, 2007). This might have led to unreliable results as BPD is characterized by vacillations in self-concept, so the SCC reported by participants at one time may not be representative of their SCC immediately before their NSSI event. Although this was not explicitly a sample of individuals with BPD, participants showed varying levels BPD pathology as endorsed on the MSI-BPD, with scores on the MSI-BPD ranging from .14-2.14, with a score of 3 on the measure indicating maximum BPD pathology ( $M = .97$ ;  $SD = .53$ ). The assessment of SCC on a separate day than the NSSI event studied may have also impacted the lack of findings congruent with previous studies that found lack of SCC to be strongly associated in engagement in NSSI (Yen et al., 2004; Claes, Luyckx, & Bijttebier, 2014), and a moderator of NSSI urges predicted by negative affect (Scala et al., 2018). Based on these findings, it was hypothesized that participants with low scores on the SCCS would generally have more NSSI events in their lifetime and would engage in riskier self-harming behaviors, however the present study did not confirm this hypothesis.

While there was no relationship between precipitant clarity and SCC, it was found that the group of participants indicating a precipitant on the same day as their NSSI event had lower scores on the SCCS than participants with reported precipitants on a previous day on average. Individuals with a poor SCC have been shown to have difficulty interpreting and incorporating external events that conflict with their ideas of themselves or others (Campbell, 1990). A

potential hypothesis is that the ineffective interpretation and incorporation of external events could lead individuals with a low SCC to not reflect on ideas about themselves or others for some time until the negative feelings regarding these conflicting representations build up over time and eventually become too distressing. Additionally, it was found that participants visiting a physician or nurse after their NSSI had higher SCCS scores on average. However, the sample of participants visiting a physician or nurse was very small ( $N = 3$ ), so this finding should be replicated with a larger sample.

Although the participants' SCCS scores were not correlated with the clarity of their reported precipitants, there were some notable correlations between clarity of precipitants and NSSI severity. The study found that poorer clarity of precipitants of NSSI was associated with a higher number of cuts within a cutting NSSI event and with higher incidence of dissociation occurring after the initiation of the NSSI event. Dissociation can occur within the context of high levels of stress and has been strongly linked to NSSI (Brodsky, Cloitre, & Dulit, 1995). While in a dissociative state, an individual has lowered awareness of themselves, their surroundings, and physical pain (Russ et al., 1996; Kemperman et al., 1997). An individual experiencing a feeling of dissociation before, during, or after their NSSI episode may not be able to incorporate external events with the internal mental states associated with their NSSI, making the identification of a precise and detailed precipitant difficult. Thus, a lack of a concrete and specific precipitant of an NSSI event could be partially explained to a participant's dissociation. However, these dissociation may not fully explain the lack of clarity of NSSI precipitant. Participants in the study who could not provide a clear and concrete precipitant of their NSSI event were often able to provide the exact day they self-harmed, precise details of methods they used such as exactly where they self-harmed and how many times they hurt themselves within their self-harm event.

Therefore, although dissociation may impact the ability to report on a precipitating event, it is unlikely to fully explain the variability in clarity of precipitants reported.

The present study has a number of strengths and limitations. A strength of the current research includes using a validated, structured clinical interview to gain detailed insight into the specific context, precipitants, and severity of a single NSSI event. However, the present study had a relatively small sample size ( $N = 94$ ) and even smaller sample sizes for certain analyses ( $N = 67$  for cutting,  $N = 3$  for physician/nurse visits). The study also had high inter-rater reliability for the coding of precipitant clarity, however no validated measure exists for such coding and the procedure warrants replication and validation. Finally, the present study assessed SCC the day that the participant came into the lab, while self-report responses scales such as the SCCS can vary across time in individuals with BPD.

Overall, the present study found several notable relationships between SCC, clarity of precipitants, and NSSI severity, but did not find confirm the anticipated hypotheses. No relationship was found between the clarity of precipitant of NSSI severity and score on the SCCS, and no significant relationship was found between scores on the SCCS and NSSI severity. The lack of anticipated findings could be due to the studies limitations, such as a small sample size and assessment of SCC on a different day than the NSSI event being studied. Future studies should look at the SCC immediately before or after an NSSI event to ensure that scores on the SCCS are accurate for the time in which NSSI severity is assessed. While SCCS scores were not associated with the clarity of precipitants, it is worth noting that participants who did not provide a concrete precipitant were able to provide very specific details about their NSSI event, such as the method, the number of times they cut, the general timeframe, or even the exact date it occurred. Therefore, the lack of clarity in precipitants was likely not due to lack of memory at

the time of interview. Future research should further investigate the precipitants of NSSI, such as developing a more detailed and valid coding measure for precipitant clarity, measuring SCC and NSSI with ecological momentary assessment, and assessing with other variables such as dissociation. Determining what affects the clarity of precipitants in self-harmers could be instrumental in helping clinicians assess NSSI precipitants to treat patients engaging in NSSI.

## Appendix

### Tables

Table 1.  
*Demographic Characteristics*

	N	%
<b>Gender</b>		
Male	13	13.8
Female	80	85.1
Transgender	1	1.1
<b>Race/Ethnicity</b>		
Hispanic/Latino	9	9.6
Asian/Pacific Islander	15	16.0
African American	5	5.3
Caucasian	62	66.0
Arab	1	1.1
Other	2	2.1
<b>Sexual Orientation</b>		
Straight	67	71.3
Gay	1	1.1
Lesbian	1	1.1
Bisexual	16	17.0
Unsure	6	6.4
Other	3	3.2
<b>Marital Status</b>		
Single	94	100.0
Married	0	0
Age, Mean (SD)	18.84 (1.62)	

*Note.* Percentages calculated from a total N=94 participants.

Table 2.  
*Reported NSSI Event Characteristics*

	N	%
Number of NSSI Events		
Total Mean (SD)	155.14 (618.78)	
Last Year Mean (SD)	21.39 (123.38)	
Initiation of NSSI		
Accidental	1	1.1
Semi-deliberate	8	8.5
Deliberate	85	90.4
Method of NSSI		
Drugs/Medications	2	2.1
Poison/caustic substance	1	1.1
Burning	2	2.1
Scratch/cut	67	71.3
Hanging	1	1.1
Jumping	1	1.1
Hitting body	10	10.6
Transportation related	1	1.1
Other	9	9.6
Severity of Cutting		
No Damage	4	5.7
Scratch	12	17.1
Cuts	54	77.1

*Note.* Severity of cutting only determined in participants indicating cutting as their method of NSSI in the specific episode assessed. Physical Condition Afterwards, Medical Risk of Death, and Medical Treatment Required were assessed by the interviewer administering the SASII. Contacts after NSSI Episode were reported by the participant in the interview.

Table 3.  
*Reported NSSI Event Outcomes*

	N	%
<b>Physical Condition Afterwards</b>		
No effect	4	4.3
Very mild effect	38	40.4
Mild effect	45	47.9
Moderate effect	6	6.4
<b>Medical Risk of Death</b>		
Very Low	27	28.7
Low	59	62.8
Moderate	7	7.4
Very High	1	1.1
<b>Medical Treatment Required</b>		
No medical treatment sought/required	87	93.5
Went to ER or physician, no treatment	1	1.1
ER or physician, treated and went home	2	2.2
ER, treated, admitted to psychiatric unit	3	3.2
<b>Dissociation</b>		
Yes, Occurring Before NSSI	13	13.8
Yes, Occurring After NSSI	10	10.6
Yes, Unsure When	2	2.1
No Dissociation	69	73.4
<b>Contacts after NSSI Episode</b>		
Physician/nurse	3	3.2
Crisis outreach/mental health professional	9	9.6
Police/wellness check	3	3.2
Paramedics/ambulance	1	1.1
Hospital emergency room	4	4.3
Inpatient, psychiatric unit	3	3.2
Hospital medical floor	1	1.1
Intensive care	0	0

*Note.* Severity of cutting only determined in participants indicating cutting as their method of NSSI in the specific episode assessed. Physical Condition Afterwards, Medical Risk of Death, and Medical Treatment Required were assessed by the interviewer administering the SASII. Contacts after NSSI Episode were reported by the participant in the interview.

Table 4.  
*Intercorrelations of SCCS, MSI-BPD, and Concreteness of Provided Precipitant with Markers of NSSI Severity*

	SCCS Total Score	MSI-BPD Total Score	MSI-BPD Identity Score	Concrete Precipitant
SCCS Total Score	-			
MSI-BPD Total Score	.386**	-		
MSI-BPD Identity Score	.396**	.663**	-	
Concrete Trigger	-.013	-.035	-.057	-
Trigger on Day of Injury	-.287**	-.020	-.023	.185
Dissociation	.070	.121	.172	-.205*
Number of NSSI Events				
Total	-.061	.003	.016	.044
Past Year	-.016	.099	.047	-.059
Duration of Urges to Self-Harm	-.055	-.049	.072	-.013
Deliberate or Accidental	-.115	-.049	-.160	.011
Method Used	-.031	-.106	.008	-.070
Cutting				
How Many Cuts	.146	.001	-.010	-.264
Stitches	-.191	-.175	-.107	-.136
Medical Risk of Death	-.025	.017	-.044	-.017
Conscious Intent to Self-Injure	.074	.170	.064	.074
Planned or Impulsive	-.010	-.025	-.025	.175
Visits After NSSI				
Physician/nurse	-.204*	-.182	-.046	-.106
Crisis outreach	-.104	-.236*	-.065	-.041
Police/Wellness Check	-.112	-.001	-.016	-.106
Paramedics/Ambulance	-.060	.147	-.042	.081
Hospital emergency room	.001	.046	-.036	.166
Treated or Not Treated	.141	.171	.096	.378
Inpatient, psychiatric unit	-.050	.010	.013	.019
Hospital medical floor	.003	.006	.109	-.132

*Note.* SCCS = Self-Concept Clarity Scale; MSI-BPD = McLean Screening Instrument for Borderline Personality Disorder; NSSI = Non-Suicidal Self-Injury. Significance (two-tailed) \* $p < .05$ . \*\* $p < .001$ .

Table 5.  
*Between Group Differences in SCCS Scores Between Self-Harmers Seeking Medical Aid from Physician/Nurse After NSSI and Those Not*

	Physician/Nurse Contacted		Physician/Nurse Not Contacted		<i>t</i> -test
	M	SD	M	SD	
SCCS Score	27.67	10.60	39.07	9.67	2.00*

Note. M = Mean; SD = Standard Deviation. \* $p < .05$ .

Table 6.  
*Between Group Differences in SCCS Scores Between Self-Harmers with Concrete Precipitants or Diffuse Reasons for Self-Harming*

	Diffuse Reasons for Self-Harm		Concrete Precipitant		<i>t</i> -test
	M	SD	M	SD	
SCCS Score	38.86	10.11	38.60	9.77	.12

Note. M = Mean; SD = Standard Deviation. No findings were statistically significant.

Table 7.  
*Between Group Differences in SCCS Scores Between Self-Harmers with Reported Precipitants on Same or Different Day as NSSI Event*

	Different Day		Same Day		<i>t</i> -test
	M	SD	M	SD	
SCCS Score	46.47	7.87	36.95	9.27	3.92**

Note. M = Mean; SD = Standard Deviation. \*\* $p < .001$ .

Table 8.  
*Between Group Differences in Number of Cuts in one NSSI Event and Number of NSSI Events Between Self-Harmers with a Concrete Precipitant or Diffuse Reasons for Self-Harm*

	Diffuse Reasons for Self-Harm		Concrete Precipitant		<i>t</i> -test
	M	SD	M	SD	
Number of Cuts*	28.62	53.93	9.00	12.69	1.90 <sup>+</sup>
Number of NSSI Past Year	120.94	441.85	176.36	709.67	ns
	30.03	160.13	15.47	90.50	ns

Note. \*Number of cuts within the specific episode for which the concreteness of the trigger was assessed; only assessed for participants indicating cutting as their NSSI method for the NSSI event assessed (N = 67).

<sup>+</sup>Approaching significance ( $p = 0.064$ ). M = Mean; SD = Standard Deviation; NS = Not Significant.

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## ACADEMIC VITA

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### EDUCATION

- 2015-present      The Pennsylvania State University, University Park, Pennsylvania  
Bachelors of Science in Psychology (Neuroscience Option) and Bachelors  
of Science in Biology (Neuroscience Option)
- 2015-present      The Paterno Fellowship Program, College of the Liberal Arts. Honors  
Program including advanced academic coursework, thesis, internship,  
ethics study, and leadership/service commitment.
- 2017-present      The Schreyer Honors College

### ACADEMIC HONORS AND AWARDS

- 2019                The Schreyer Family Honors Scholarship  
2018                The College of Liberal Arts Enrichment Funding  
2018                The Schreyer Honors College Thesis Grant  
2018                The Class of 1922 Memorial Scholarship  
2015-2018        The Dean's List, College of the Liberal Arts  
2016                The President's Freshman Award, The Pennsylvania State University  
2015                The Coulson Tough Scholarship

### RESEARCH EXPERIENCE

**Honors Thesis**, August 2018-present. The purpose of the ongoing project is to examine triggers for Non-Suicidal Self-Injury (NSSI) in college students and clinical outpatients. Research from Dr. Levy's Laboratory for Personality, Psychopathology, and Psychotherapy has found that as rates of NSSI increase, reports of clarity in one's sense of self and identity have decreased. Defined as how clearly and stably one's beliefs about oneself are defined, research suggests that self-concept clarity is an important predictor for suicidal urges. The study aims to assess the relationship between self-concept clarity, the ability for participants to identify a trigger for self-harm, and the associated markers of severity of self-injury including methods used, physical state following self-harm, and necessity of medical intervention. It is predicted that individuals with poor sense of self will report more diffuse reasons for self-harm rather than a concrete trigger, and will be more likely to engage in riskier self-harm with more severe outcomes.

**Lab Coordinator**, January 2017-present. Laboratory for Personality, Psychopathology, and Psychotherapy Research, Pennsylvania State University. Coordinate the lab's Adult Attachment Interview project, training new Research Assistants, delegating responsibilities, overseeing progress, and summarizing the project in weekly memorandums. Also involved in lab logistics

including writing and maintaining Research Assistant schedules and scheduling appointments with Dr. Kenneth Levy.

**Clinical Interviewer**, September 2016-present. Laboratory for Personality, Psychopathology, and Psychotherapy Research, Pennsylvania State University. Administer clinical interviews to laboratory participants from the University's Psychological Clinic, including Linehan's Suicide Attempt-Self Injury Interview (SASII), The Structured Clinical Interview for DSM-V (SCID-5), The International Personality Disorder Examination (IPDE), and The Adult Attachment Interview (AAI).

**Research Assistant**, January 2016-present. Laboratory of Personality, Psychopathology, and Psychotherapy, Pennsylvania State University. Principal Investigator: Kenneth N. Levy, Ph.D. Involved in on-going NIMH and foundation grant-funded research program investigating change in attachment representations, assessing non-suicidal self-injury and suicidality in undergraduates and clinical participants, and borderline personality disorder. Involved in the recruitment and running of participants, the transcription of semi-structured interviews, coding data, entering data, editing large data sets, data analysis using SPSS, listening to and coding therapy sessions, and other general lab functions.

**Research Assistant**, May 2017-August 2017. CHI St. Luke's Stroke Research Center. Entered data of admitted emergency room patients with strokes into the American Heart Association's "Get With the Guidelines" program.

## **TEACHING EXPERIENCE**

**Teaching Assistant**, January 2017-present. Biology: Basic Concepts and Biodiversity. Teach the laboratory component of the Introduction to Biology course. Teach and monitor one three-hour lab section per week, answer student questions, grade laboratory assignments and reports, and hold office hours.

**Assistant Teaching Assistant**, August 2016-December 2016. Biology 110. Assisted the TA in a section of the laboratory component of Intro to Biology by directing students and answering key concept questions.

## **OTHER EXPERIENCE**

**Social Chair, Secretary, and Historian**, Ally House. January 2017-present. Involved with creating community-building activities, sending weekly emails, maintaining an official Instagram and Twitter account, and maintaining the Penn State Special Living Option requirements. Ally House provides an open, safe, and inclusive living environment for lesbian, gay, bisexual, transgender, and ally students. This living environment is a collaboration between the Lesbian, Gay, Bisexual, Transgender, Queer, and Ally (LGBTQA) Student Resource Center and the Sexuality and Gender Studies minor that is offered by the College of Liberal Arts. Ally House fosters a community dedicated to knowledge and understanding of sexuality and gender issues. Student programs and academic opportunities support these goals.

**Shadowing**, May 2017-August 2017. Dr. Peter Shedden, practicing Neurosurgeon at CHI St. Luke's Hospital in The Woodlands, TX.

**Volunteer**, NYU Langone Medical Center. June 2016-August 2016. Helped the physicians, nurses, administration, patients and families of an inpatient unit in Tisch hospitals. Assisted nurses with various basic tasks such as transporting equipment throughout the medical center, delivering samples to the lab, obtaining basic supplies, and basic check-ups with patients. Assisted the administrative staff by answering phones during breaks, speaking with and directing patient's families, and answering the needs of the patients of the units. Kept the inpatients company when desired by conversing and helping with basic tasks such as personal phone calls, organizing the room, and retrieving comfort items.

**Mentor**, Life-Link PSU. August 2015-December 2015. Taught life and social skills to Pennsylvania State University and State College High School students with a variety of mental disabilities.

**Assistant Principal Violist**, the Pennsylvania State University Campus Orchestra. August 2015-December 2015. Functioned as the assistant to the head of the Viola section in Penn State's campus orchestra.

### **OTHER WORK EXPERIENCE**

**Barista**, Starbucks in The Woodlands, TX. May 2013-October 2015, May 2017-August 2017, May 2018-August 2018. Worked as a barista in three high-volume Starbucks stores, taking orders, preparing food and beverages, organizing inventory, closing and opening, cleaning, etc. As Barista Trainer, trained approximately five newly-hired baristas. Highly experienced in: maintaining a high level of customer service, working under stress, handling dissatisfied customers with professionalism, and effectively managing time.