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Traumatization Resulting from Interpersonal Disclosure: Developing a Measure of Disclosure-Induced Neo-Trauma

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Abstract

The purpose of this study was to introduce a new construct into the field of traumatology: *disclosure-induced neo-trauma* (DINT). DINT is conceptually defined as a negative disclosure experience that entails traumatic stress, disrupts the relationship between the discloser and the person(s) to whom they disclosed, and is appraised by the discloser as a new traumatic event. Participants ($N = 167$) identified a stressful event in their lives and reported whether they had ever disclosed that event. The majority (59%) of participants who had disclosed the event had experienced a difficult disclosure, and 15% strongly agreed that the disclosure in and of itself was a traumatic event (45% somewhat agreed). These findings support the notion that the DINT experience is relevant and impactful for many people. A six-item *disclosure-trauma* scale was created to facilitate identification of DINT. A series of analyses supported the construct validity of the disclosure-trauma scale, which had high reliability (Crohbach's $\alpha = .91$). The PROCESS macro (Hayes, 2022) supported the hypothesized mediation model that negative social responses would predict disclosure trauma via two pathways: a) by creating traumatic stress symptoms related to the disclosure and b) by negatively impacting the discloser's relationship with the person to whom they disclosed. All of the associations involving the disclosure-trauma scale were independent of any association with post-traumatic stress due to the originating stressful event, suggesting that DINT is a separate and novel trauma with its own distinct set of symptoms. The findings have numerous clinical and conceptual implications, and for contemporary trauma theory's application of trauma-informed frameworks. For persons recovering from trauma, negative disclosure experiences are a sometimes unacknowledged, yet regular, part of their journey. DINT is not only an added burden, but also a new wound with its own sequelae of symptoms requiring a distinct approach to treatment.

TRAUMATIZATION RESULTING FROM INTERPERSONAL DISCLOSURE: DEVELOPING A MEASURE OF DISCLOSURE-INDUCED NEO-TRAUMA

by

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I never thought I would be where I am and actually completing a doctoral dissertation. I did not think that was a prospect for my life or even a path I could consider. My journey was not linear and where I landed is in part resilience, but moreover due to the support of others. I would not be here without the social network that the universe provided me. I can't thank everyone (family, friends, colleagues) enough, but will do my best to acknowledge those closest to me (my partner, my son, my parents, and my committee).

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Chapter One: Introduction

Stress occurs regularly in life because of a wide variety of experiences that range from mild to severe in their psychological, emotional, and physiological impact. *Traumatic stress* lies at the severe end of this stress continuum, yet also has qualitatively distinct characteristics (Shalev, 1996). Telling others about an event that causes traumatic stress (i.e., a *traumatic event*) can be reparative and aid the coping and healing processes (Frattaroli, 2006; Guay et al., 2006; Pennebaker & Susman, 1988; Sloan & Wisco, 2014). However, *interpersonal disclosure* of a traumatic event can leave a person vulnerable to unsympathetic or critical responses to their plight. *Social reactions* to disclosure that ostracize or blame the victim can be especially distressing (Filipas & Ullman, 2001; Herbert & Dunkel-Schetter, 1992).

I propose that aversive social reactions to the disclosure of a traumatic event can be so deleterious as to engender a novel traumatic experience distinct from the originating traumatic event. Throughout this dissertation, I use the term *disclosure stress* as a dimension representing the full spectrum of stress (from none-at-all to traumatic stress) that a person may experience when disclosing a previous distressing event to others. I use the term *disclosure trauma* as a dimension representing the degree to which the person who has disclosed a previous distressing event to another person perceives that disclosure experience itself to be a traumatic event. Finally, for ease of presentation, I introduce the term *disclosure-induced neo-trauma* (DINT) to refer to the high end of the disclosure-trauma spectrum and, thus, as a way to designate those cases in which a disclosure experience spawns high levels of disclosure stress, disrupts important relationships, and is regarded by the discloser as a distinct traumatic event in and of itself.

I also propose that the development of a DINT is likely to disrupt subsequent tendencies to share vulnerable experiences with others and may compromise the discloser's ability to

cultivate fulfilling intimate relationships. Similar to the archaic meaning of the word *dint*, a trauma resulting from betrayal during disclosure may leave a lasting impression or mark on the survivor's psyche.

Clinical and personal observations suggest that, in many respects, flawed and poignant disclosure experiences can be as detrimental as the original traumatic experience to the emotional well-being of a trauma survivor. As a clinician, I have had the opportunity to bear witness to individuals' disclosures and to their processing of previous disclosure experiences. I have noticed a recurring theme among a subset of my clients in which an unfortunate disclosure experience has produced attachment disruptions and emotional turmoil that take on a distinct phenomenology. The emotional distress and psychological conflict surrounding the disclosure are clearly separate from any distress or conflict that stems from reliving the original traumatic event.

One of the first realizations that I had of this phenomenon in a clinical setting was in my work with Maria (pseudonyms are used when referring to former clients). Maria and her romantic partner sought therapy to process a long history of childhood sexual abuse and the impact that it was having on their relationship. Maria reported that she felt more betrayed by her mother, to whom she had first disclosed the molestation that she suffered as a child, than by her father, who was the perpetrator. She described her mother's response as blaming of her, turning a blind eye for years, and being dismissive and disbelieving when she disclosed the incest. Maria recalled that her mother continued to make statements that put responsibility on her as a 10-year-old abuse victim rather than on her father. Maria stated in the therapeutic context that this betrayal within the relationship with her mother hurt then and continued to hurt much more than

her father's sexual abuse. The distrust resulting from her mother's negative response to the disclosure subsequently impacted Maria's adult relationships, including with her current partner.

Since then, I have continued to encounter clients who are in anguish over the traumatic nature of their disclosure experiences. Another example involved a 13-year-old client, Juniper. One side of her split family callously downplayed Juniper's experiences of abuse by her father. She was drawn to frequent suicidal ideation and chronic depression due to micro-moments of reaching out and being shamed, insulted, and demoralized in response. She described these interpersonal incidents as being more upsetting than the insidious abuse her father continued to instill upon her. Her visceral reaction during her attempts to tell her family about the continued abuse was to freeze when her disclosure was met with disbelief, dismissal, and rejection. When unpacking the repeated freeze response, Juniper reflected that her distress was seldom about what she disclosed in the first place (i.e., the details of some past trauma). Instead, she was overwhelmed by what unraveled within the family relationships during and after these disclosures. The disclosure experiences themselves were what often sent her to "dark places."

Another heartbreaking exemplar of a DINT in practice was with a client, Kelli, who was sexually assaulted at a university. When she disclosed the assault, it was met with suspicion and pointed questioning by her current romantic partner, family, and close friend. She felt that these interpersonal experiences silenced her and subjugated her to a freeze response. She was adamant that this freeze response was not induced by reliving the assault, but was the direct result of the debilitating, interpersonal agony she experienced because people whom she trusted betrayed her through their invalidating responses to her disclosure. These attachment disruptions within her close relationships were just one set of DINT experiences in the aftermath of the assault. Kelli also described traumatic events emerging from her interactions with various authority figures in

the legal system who repeatedly created a fearful context in which she felt frozen and humiliated in response to sometimes hostile questions. She described the interrogations as forming a novel traumatizing experience completely distinct from the horror she felt when reliving the assault itself.

One last case vignette to clarify the DINT experience involves Saleem, who was a successful middle-aged man who was married with two young children. He was a product of intergenerational trauma, with his mother witnessing extensive societal trauma throughout her upbringing in Pakistan. Her traumatic background greatly impacted the family environment in which Saleem was raised. In adulthood, Saleem's repressed memories from his childhood began to surface. He unpacked the culturally relevant aspects of his family system in therapy and navigated the boundaries he needed to set in order to feel emotionally and physically safe from his mother. Prior to his traumatic childhood memories resurfacing, Saleem lived a life enmeshed with his mother, feeling suppressed and violated on numerous occasions. When he realized what had happened throughout his life and set boundaries, he felt his physical body release. The DINT came into play when he disclosed the traumatic childhood experiences to his husband. In that vulnerable moment, everything shifted in their marital relationship. Saleem's partner had his own trauma response to the disclosure and was dismissive of the details shared. Saleem felt all the trust in their dynamic erode in an instant, feeling dropped, shattered, and betrayed in a novel way. He no longer was concerned with the details he disclosed and found himself in shock that someone he had relied on for many years seemed to have left him alone emotionally with a burden too heavy to bear. In the months after this disclosure, Saleem's husband made repairs acknowledging his poor response and insisting that now "I have your back" regarding their aligned state against Saleem's mother. Nevertheless, despite the apologies, Saleem has a visceral

reaction to bringing any feeling of vulnerability to his husband openly. As he turns away from his husband now, the disconnect has become a chasm that he attributes to being left to heal and grow on his own due to his husband's hurtful response in that heartbreaking moment of disclosure. Saleem's traumatic stress symptoms regarding his family of origin have resolved for the most part and no longer would warrant a PTSD diagnosis. But the damage done within his marital relationship due to a micro-moment of disclosure has yet to subside and avoidant symptoms associated with that specific disclosure event have yet to resolve. It is apparent that the DINT experience within the marital relationship is causing more immediate and potent damage than the years of hierarchical abuse to which Saleem was subjected in his childhood.

These clinical examples hopefully provide qualitative data to allow the DINT experience to resonate in a personal way. Many of us undoubtedly have experienced being let down by someone of relational importance when disclosing something meaningful in a vulnerable manner. This experience can be quite impactful in how we relate going forward. In the case vignettes described above, there is a clear distinction between a) retraumatization that may result from reliving a previous traumatic event and b) the conception of a new traumatic experience centered around feelings of betrayal when persons whom the discloser anticipates will be supportive actually respond in ways that evoke newfound traumatic stress and damage or sever their interpersonal connections. A DINT, while related to a previous traumatic event, induces distinct traumatic stress separate from the past experience being disclosed. The stories above illustrate how deleterious a DINT can be, with long-term relational and emotional implications.

The explication of disclosure-induced neo-trauma as a distinct phenomenon has conceptual, clinical, and psychometric utility. Conceptually, the notion that disclosure can cause new trauma is important to the broader, constructive understanding of psychological trauma. The

trauma literature contains several terms that may seem to resemble the new construct I am proposing here, such as *retraumatization* (sometimes referred to as *revictimization* and *secondary victimization*) and *secondary trauma*. These terms are used inconsistently and sometimes interchangeably in the trauma literature. For example, "retraumatization" sometimes refers to the notion that disclosure can be distressing because it can bring back unpleasant memories related to the original traumatic event (Danieli, 2010), while other times "retraumatization" refers to being traumatized repeatedly by exposure to multiple, new events (Duckworth & Follette, 2012; Follette & Vijay, 2008). "Secondary trauma" can refer to a reliving of the original trauma (Campbell et al., 2001) or witnessing/learning about a trauma that someone else has experienced (Elwood et al., 2011). Regardless of how any of these terms has been applied to date, I am aware of no explicit statement in the literature proclaiming that disclosure can culminate in a new trauma specific to the disclosure experience (i.e., a neo-trauma) that is a separable phenomenon from the original traumatic event being disclosed. I regard DINT to be a new and powerful construct that not only fills an important conceptual gap in the trauma literature, but also has clear clinical implications for therapists and clients alike.

Clinically, it is well known that trauma survivors are often reluctant to report or disclose their victimization because of concerns about the response they may receive (Ullman et al., 2010). This implies that survivors are aware of their vulnerability to neo-trauma as a result of disclosure even if the extant literature does not explicitly recognize this phenomenon. By explicitly identifying and naming the DINT phenomenon, the clinician may have a clearer avenue by which to address an apprehensive client's concerns about disclosure. In addition, as systemic therapists, we need to be particularly mindful that negative reactions to disclosures

from other principals in a therapy session (couples, families, groups, or even the therapist) may not only be distressing, but may actually conceive a new trauma.

Psychometrically, although there are existing measures of disclosure tendencies (Hoyt et al., 2010; Kahn & Hessling, 2001; Mueller et al., 2000) and social reactions to disclosure (Allen et al., 2015; DiMauro & Renshaw, 2021; Ullman, 2000), none of these existing inventories sufficiently captures the full complement of traumatic stress responses necessary to designate a disclosure experience as a traumatic event. This dissertation develops and attempts to validate a psychometric instrument specifically designed to assess disclosure trauma and to identify instances of disclosure-induced neo-trauma (DINT) based on that instrument. Thus, in addition to the conceptual advance that comes from introducing the psychological construct of DINT into the literature, this dissertation will offer a methodological contribution by introducing and testing the reliability and construct validity of a new psychometric measure of the dimension of disclosure trauma, with DINT at the high end of this dimension.

Chapter Two provides the theoretical background from which the proposed phenomenon of DINT emerged. There is a long history of interest in, and ambivalence surrounding, the effects of trauma on individuals in societies across time. *Contemporary trauma theory* represents the current understanding of the etiology of trauma symptomology and emphasizes a compassionate approach to treatment (Herman, 1992; Miller-Karas, 2015; Pearlman & Courtois, 2005; van der Kolk, 2018). The field of *interpersonal neurobiology* represents the current understanding of the neurobiological underpinnings of trauma symptomology and emphasizes the central influence of interpersonal processes on the development, maintenance, and amelioration of maladaptive symptoms (Schore, 2003; Siegel, 1999). Finally, *attachment theory* highlights the central influence of important relationships on the potential formation of traumatic symptoms and how

and why these symptoms can be long-lasting and permeate other relationships (Bowlby, 1969; Main et al., 1985). In addition to reviewing the pertinent aspects of each of these theoretical frameworks, Chapter Two formally defines the proposed phenomenon of disclosure-induced neo-trauma (DINT) and specifies a conceptual model with accompanying hypotheses about the processes underlying the formation of a DINT experience.

As an initial premise, I proposed that DINT is a common enough experience that a reasonable number of examples would be evident in a sample of one to two hundred individuals (Hypothesis 1). Although this is not the traditional phrasing of a hypothesis, this premise provided a necessary starting point for the subsequent hypotheses about patterns of association between the dimension of disclosure trauma (with DINT at the high end) and other key variables. These hypotheses correspond to elements of the mediation model that is presented in Chapter Two. Essentially, I proposed that negative social responses lead to the formation of DINTs because they produce greater traumatic stress attributable to the disclosure and result in greater disruption to the relationship.

Chapter Three describes the methodology I used to examine this model and the corresponding set of hypotheses. I administered a questionnaire to a sample of 167 individuals in which they identified a previous traumatic event and described their experience disclosing this event to another person. The questionnaire contained assessments of the originating traumatic event (e.g., a brief narrative of the event and the degree of traumatic stress it caused) and the disclosure experience (e.g., a brief narrative of that experience, perceptions of the social response during the disclosure, the degree of traumatic stress and relationship disruption it caused, and the degree to which the disclosure was regarded as a traumatic experience on its own accord). A targeted set of accompanying measures of depression, anxiety, and general disclosure tendencies

were also included. In the end, I sought to document the experience of DINT and to understand more about its phenomenology, the "upstream" factors that give rise to it, and the "downstream" factors that flow from it.

The findings from the survey are presented in Chapter Four. The data analyses are organized in three phases that systematically test the hypotheses corresponding to the conceptual model at the end of Chapter Two. In addition, supplementary analyses are presented to address additional empirical questions that arose after observing interesting patterns of associations among the key variables in the data set.

The empirical, methodological, and conceptual implications of the findings are discussed in Chapter Five. In this chapter I reflect on the theoretical models reviewed in Chapter Two and integrate the findings from the current study with elements of those theories that are relevant to this dissertation. The concept of DINT that I am putting forth and the findings from the research presented here have several implications for clinical practice and approaches to trauma treatment. I conclude Chapter Five with a thorough discussion of these clinical implications.

Chapter Two: Literature Review

The salutary effects of disclosing a traumatic event are well-recognized and well-documented in the contemporary psychological literature (Frattaroli, 2006; Pennebaker et al., 1988; Smyth, 1998). So, too, are the many barriers and threats to constructive disclosure of a traumatic experience (Alaggia et al., 2019; Becker-Blease & Freyd, 2006; Browne, 1991; Dakof & Taylor, 1990; Ullman, 1999). Voluntary disclosure of a traumatic experience leaves a person exposed and requires trust that this vulnerability will be met with empathy, support, and understanding. The public revelation that one has been the victim of a trauma is potentially stigmatizing (Goffman, 1963). Thus, the reactions of others to such a disclosure can be empowering by easing fears and re-establishing a sense of belonging, safety, and control. But reactions can also be disparaging and provoke shame, exclusion, fear, and helplessness. I argue in this dissertation that denigrating, devaluing, and dismissing social reactions during disclosure can create a novel traumatic experience that is functionally distinct from the originating traumatic event. I refer to this phenomenon as a *disclosure-induced neo-trauma* or DINT.

This chapter provides an integrative review of the substantial literature relevant to the psychological constructs that are central to the DINT concept I am proposing and the corresponding hypotheses that I tested empirically. The first section of this chapter identifies the broader theoretical frameworks that have influenced my ideas. The next section is devoted to formally stating and proposing the DINT phenomenon and defining relevant conceptual variables. The final section states and provides a rationale for each hypothesis that I examined using the research methodology described in Chapter Three.

Theoretical Frameworks and Considerations

My postmodern (Neimeyer, 2002; Neimeyer & Bridges, 2003; B. C. Taylor, 2005) and social-constructionist (Adams, 2006; Anderson & Goolishian, 1992; Dickerson, 2000) epistemological orientation impacts both the theories that resonate for me and my subsequent interpretation and integration of these theories into the broader meta-theoretical context within which this dissertation is grounded. In this section, I review the broader theoretical perspectives that have been most central during the development of my conceptualization of disclosure-induced neo-trauma (DINT). These perspectives are contemporary trauma theory (DePierro et al., 2022; Ford & Courtois, 2013; Herman, 1992; Miller-Karas, 2015; Payne et al., 2015; Pearlman & Courtois, 2005; Porges & Dana, 2018; van der Kolk, 2018; van der Kolk et al., 2005; Yehuda & Lehrner, 2018), interpersonal neurobiology (Cozolino, 2010; Schore, 2003; Siegel, 1999), and attachment theory (Ainsworth, 1963; Bowlby, 1969; Main et al., 1985). I begin this section with an introductory review of the history of traumatology more generally.

Traumatology

Interest in the scientific study of psychological trauma (i.e., *traumatology or psychotraumatology*) has been substantial at times and completely dissociated from academic, medical, and public consciousness at other times. This vacillation can be attributed to various socio-anthropological-political forces and a macro-level repression of what might be perceived to be emotionally threatening and, thus, avoided by society at large (Herman, 1992). The awareness-suppression pendulation at the societal level parallels the symptoms experienced by many traumatized individuals whose physiological stress responses and memory systems can produce alternating responses of hyper- and hypo-arousal, vigilance and dissociation, and rumination and repression. The complicated history of interest in traumatology also parallels the

recognition, conceptualization, and theoretical framework that led me to cultivate the idea of a DINT experience, which is rooted in the ambivalent, defensive, and suspicious orientation of other persons toward the traumatized. This section will provide a broad overview of the study of traumatology as a science from pre-psychoanalysis through the field as it stands today.

Trauma has been met with social suppression, resistance to acknowledgment, and pervasive gender disparities that have led to the questioning of its very existence as a phenomenon (Herman, 1992). Despite its regular and frequent occurrence, witnesses and perpetrators alike, as well as victim survivors, have silenced the experiences and downplayed the debilitating effects of trauma. Only in recent years has the term *trauma* come to be globally acknowledged and applied to "a disordered psychic or behavioral state resulting from mental or emotional stress or physical injury" and simultaneously to the "agent, force, or mechanism that causes…" this state (Merriam-Webster, 1994). Because of this tendency to use the term "trauma" to refer to both the condition of being traumatized and to the precipitating event, I take special care later in this chapter and throughout the Methodology (Chapter Three) when labeling and defining conceptual terms that are not labeled and defined in a consistent manner in the broader psychological literature.

Despite these inconsistencies in the use of the term, literature written across most of recorded history, in multifaceted ways and across disciplines, has referenced common themes of traumatic incidents followed by fairly consistent depictions of the emotional, relational, and physiological impacts. To a large degree, many of these historical depictions reflect the contemporary understanding of psychological trauma (Weisaeth, 2014). Naturally, the interpretations of these effects during each era have been influenced by the contemporary culture and, thus, have varied across time. Nonetheless, questions surrounding the etiology of symptoms

have fueled recurring debate as to whether the symptoms are manifestations of psychological or physical processes and whether they are the result of individual predisposition or environmental exposure. This cyclical debate and the apparent pressures to downplay the psychological and environmental roots of trauma have greatly limited the understanding and treatment of trauma symptomology across time.

The contemporary understanding of trauma in Western society has been heavily influenced by three recent historical periods during which there were dramatic rises in the number of actual or recognized casualties of traumatic events (Herman, 1992; van der Kolk, 2014). The first of these was the Victorian-era interest in the phenomenon of *hysteria* within the medical and psychiatric communities of Western Europe and the United States (Charcot, 1887; Freud, 1896/1962; Janet, 1889). The second major contributor to the recognition of trauma's impact was warfare. Regularly occurring wars beginning in the late 1800s brought waves of casualties suffering from what initially was termed *shell shock* (Leri, 1919; Myers, 1915, 1940). The third movement was in the 1970s in response to public awareness of sexual abuse and domestic violence (Russell, 1984). Each of these historical era's contributions to the understanding of trauma is reviewed briefly below because each contains at least one element that has informed my conceptualization of the proposed DINT phenomenon.

In the late 19th Century, Charcot was studying *hysteria* and documenting anomalies in the syndrome. His demonstrations of the symptoms of his patients brought professional interest and public curiosity. Charcot raised intrigue regarding the symptoms that now would be readily recognized as being the result of trauma, but he dismissed the emotionality and humanity of his patients. Freud wanted to understand the etiology of the symptoms of hysteria more deeply and how they manifested in affected persons. In doing so, he spent considerable time listening to and

empathizing with the stories disclosed by his patients. He became a witness to numerous experiences of violation, adversity, and abuse that his adult patients were victim to as children. In *The Aetiology of Hysteria*, Freud (1896/1962) directly addressed the cause-effect relationship between early abuse and adult symptomology. This created substantial turbulence with deleterious social ramifications as society at large and, of course, the perpetrators of the heinous acts of violation wanted this reality silenced to prevent accountability. This backlash ultimately led Freud to recant his initial theory about the etiology of trauma. He went from being an ally and social justice advocate to a bystander colluding with the larger populous denying the truth of so many survivors (Masson, 1984). Freud's initial holding of survivors' narratives was powerful and healing, and his work provided a genuine contribution to the early trauma literature; however, the societal pressure to conform and maintain silence regarding these atrocities led to his inevitable betrayal of those he once held with respect. In a sense, Freud epitomizes the unsympathetic and dismissing recipient of a vulnerable disclosure that is the hallmark of the DINT experience that I am proposing.

The early 1900s brought awareness once again to the symptoms of trauma, poignantly in the psychological struggles of soldiers returning from war. Debate ensued between those who believed that exposure to violence led to the symptoms and those who hypothesized intrapsychic, pathological predispositions (constitutional weaknesses) among soldiers who succumbed under the stress of combat. Social pressure to maintain soldiers' ability to continue in combat led to a reluctance to recognize that combat itself was the cause. For example, doctors and medical providers within the military community were expressly advised not to refer to any soldiers' symptoms as being related to the heart as it might prevent them from being redeployed (Hyams et al., 1996).

Da Costa (1871) referred to patients being treated after combat in the Civil War who had symptoms that today would be identified as due to traumatic stress as having *irritable heart* syndrome, which he claimed to have no cardiovascular pathology. By the time of WWI, the syndrome became known as *Da Costa's Syndrome*, and the condition appeared to have increasing prevalence among soldiers who struggled with symptoms such as fatigue, dizziness, confusion, and nightmares. This term overlapped with terms such as *soldier's heart* and *the effort syndrome* (Lewis, 1919) which reflected the tendency for symptoms, particularly cardiovascular ones, to increase during stressful exertion. Again, the hypothesized etiology of such symptoms transformed from the warfare context to a focus on other environmental causes (e.g., infectious diseases and sleep exhaustion) and individual predispositions (e.g., "constitutional nervous weakness"; Hyams et al., 1996; Lewis, 1919). It was acknowledged that, to some extent, stressors in the warzone were a contributing factor to these symptoms. However, there was extensive debate as to whether the *effort syndrome* produced by these stressors represented a psychological or physiological phenomenon. During WWI, the syndrome became known as *shell shock* or *trench neurosis* (Mott, 1916; Salmon & Fenton, 1929). Mott (1916) focused understanding of the symptoms manifesting in soldiers on the underlying physiological processes while Salmon (1917) shifted the understanding to incorporate psychological responsivity. Oppenheim (1917) originally hypothesized that the symptoms likely were due to physical injury, however he later reconceptualized his understanding to be congruent with current models of nervous system dysregulation resulting from psychological responsivity to traumatic environmental stimuli.

The etiology of *effort syndrome* and similar wartime phenomena continued to be debated in WWII as to whether the corresponding causes were physical or psychological, and this

distinction was of paramount concern within the British military (Fraser, 1940). This transformed into language of a "psychoneurosis" after the systematic clinical study conducted by Wood (1941) where symptoms were interpreted to be of psychological etiology, rather than due to physical injury.

The Vietnam War brought with it more recognition of the deleterious impact of combat on soldiers, with increasing awareness of the longer-term damage beyond the acute response at the time of the environmental exposure. The pattern of symptoms seen in many Vietnam vets initially was referred to as *post-Vietnam syndrome* (Friedman, 1981) and this language eventually shifted to *posttraumatic stress disorder* (PTSD). In the 1970's, a social activist group called Vietnam Veterans Against the War brought awareness to the socio-political structure of combat, the maladaptive culture within the broader military environment, and the devastating psychological burden experienced by many soldiers (Herman, 1992; Lifton, 1973). This awareness contributed to the inclusion of an official PTSD diagnosis within the *Diagnostic and Statistical Manual of Mental Disorders* in 1980 (DSM-III at the time). In the present research, this specification of the agreed-upon symptoms of PTSD – including the dissociative subtype – provides a template against which to compare the traumatic stress symptoms reported by those who describe feeling traumatized because of their experiences with disclosure.

The Women's Liberation Movement raised public awareness of a far more widespread source of traumatization within contemporary society. The abuse, exploitation, and violation of women within the domestic context had long been silenced and unnamed due to societal shame and oppression. What Freud ultimately rejected was reinvigorated in research uncovering the devastating reality that rape, sexual assault, and various other acts of objectification and dehumanization of women were not only reality, but an epidemic in maintaining patriarchal

dominance and discrepancy between men and women in society. These traumas became increasingly acknowledged and given language of *rape trauma syndrome* to parallel the symptomology of combat (Burgess & Holmstrom, 1974). *Battered woman's syndrome* (Walker, 1979) was another term used to describe the post-traumatic reactions of women who were traumatized within the interpersonal dynamics of marriage and domestic partnerships. The raising of public consciousness regarding the prevalence of violence against women also re-opened doors to acknowledgement and investigation of childhood sexual abuse. The recurring evidence of resistance to acknowledging the prevalence of trauma and the corresponding absence of compassion for survivors shed additional light on why victims of trauma feel especially vulnerable when disclosing their traumatic experiences.

The above narrative of trauma history is supported by three overarching waves of awareness addressing and investigating the post-traumatic sequalae of symptoms that survivors endure. The Freudian conceptualization of hysteria, the soldier struggling with combat neurosis or shell shock, and the women's liberation movement to deconstruct the dominant discourses of dehumanization of women all led to the current recognition that traumatic events lead to post-traumatic reactions that are devastating to survivors. It is important to emphasize, however, that this is by no means a thorough historical account. There were countless other writings across time that address trauma. The three identified here commonly are a focal point within the scientific traumatology community as part of the main development of the field of traumatology, but there are many more. Other writings, events, time periods, and themes have been of paramount importance to the recognition and understanding of trauma and the narratives, vignettes, and experiences from these sources should be acknowledged. For instance, writings on Holocaust survivors (Frankl, 1959/2006; Grossman, 1944/2014; Wiesel, 1960/1982), slavery and

its aftermath (Douglass, 1845, 1882; Northup, 1853; Vaughans, 2014), prejudice and discrimination (Allport, 1954), genocides across history (Hatzfeld, 2007; Kalayjian et al., 1996), natural disasters and physical injuries (Deraniyagala, 2013), and other cases of direct and indirect exposures to oppression and violence over the course of human existence have had a profound influence. In effect, trauma and the manifesting responses have been documented since documentation has been humanly possible.

Contemporary Trauma Theory

Social constructionism plays a vital role in the contemporary understanding of trauma in that transcendent conceptualizations are influenced by historical understanding, current societal emphases and mores (Hirschberger, 2018), and aspirations for the future as technology and knowledge progress. Thus, the approach to understanding trauma that I refer to as "contemporary trauma theory" situates itself in current time and likely will continue to evolve based on social influence and openness to awareness (DePierro et al., 2022; Ford & Courtois, 2013; Herman, 1992; Miller-Karas, 2015; Payne et al., 2015; Pearlman & Courtois, 2005; Porges & Dana, 2018; van der Kolk, 2018; van der Kolk et al., 2005; Yehuda & Lehrner, 2018).

The current traumatology field is a subset of the psychological sciences and intersects with all facets of academic, clinical, and medical inquiry. Traumatology has created programmatic language that entails a framework to metabolize the impact of trauma, provide treatments, and move toward organizational and policy shifts based on this understanding (E. A. Bowen & Murshid, 2016; Fernández et al., 2023; Purtle & Lewis, 2017).

Bio-Psycho-Social Model. Contemporary trauma theory highlights the paradigm shift in conceptualizing from a unilateral reductionism to a triadic, interconnected view of the impact of an external stressor on the physiology and psychological mind-state of the victim-survivor. In

doing so, focusing sustained awareness of the neuroanatomical and physiological alterations that can ensue during the peri-traumatic experience and acutely afterward, it is evident that the external event and the internal shifts are inherently linked via an adaptive response for purposes of survival, which is the polar opposite of a pathology. Trauma-informed understanding conceptualizes these peri-traumatic, or acute responses, as strengths and elements of resilience promotive of survival at the time of the event (Baldwin, 2013; Freyd, 1994; Perry et al., 1995). Thus, appreciating the responsivity as an adaptation at the time and situated in a person's historical context can help mitigate shame and internalized sense of fault when these responses become patterned (Perry et al., 1995) and are the focus of treatment.

Contemporary trauma theory integrates biological, psychological, and social influences on the initial response to a traumatic event and the recovery process thereafter. This bio-psycho-social approach is integrative and holistic, recognizing the various elements of response, as well as their reciprocal influence. The physiological ramifications of threat responsivity for purposes of survival will be discussed further in the interpersonal neurobiology section of this chapter. However, a core aspect of the contemporary perspective on trauma is this understanding that an overwhelming event experienced by a person disrupts physiological homeostasis: dysregulating autonomic nervous system arousal, endocrine system through gluccocoritcoid disruption, alterations in the cardiovascular system, and subcortical/cortical networks respectively activated/deactivated both acutely and potentially chronically (Bremner, 1999; Perry et al., 1995; Perry & Szalavitz, 2006; van der Kolk, 2000, 2014; Yehuda et al., 1998), These alterations disrupt the individual, but also impact the social network in which the person is involved (Mansfield et al. , 2014) and the systemic world in which a person is embedded (Bronfenbrenner, 1986)

Trauma-Informed Care. The quintessential element of what it means to be *trauma-informed, trauma-sensitive,* or *trauma-responsive* in contexts of academia, research, clinical practice, and pedagogy is the mandate to depathologize trauma survivors (Eales & Goodwin, 2022) and acknowledge the prevalence of trauma (Kessler et al., 2017; Magruder et al., 2017). Persons qualifying for a "disorder" such as PTSD are susceptible to being viewed as having an intrapsychic deficit and to be shamed, devalued, and misunderstood. Essentially all other diagnoses in both the mental health field and medical model identify the root of the malady as a form of internal pathogen, whether that be a cancer or a neurotransmitter deficiency. PTSD is a diagnosis that, according to the DSM-5, requires a "qualifying" external event (American Psychiatric Association [APA], 2013). Depathologizing trauma begins with an understanding that the response the victim-survivor has at the time of the trauma is evolutionarily adaptive (Freyd, 1994) with neural and physiological correlates (Baldwin, 2013; Eales & Goodwin, 2022; Perry et al., 1995). These natural responses include flight-fight (Cannon, 1928) or freeze (Hagenaars et al., 2012) as well as tend-and-befriend (S. E. Taylor, 2006). Trauma-informed understanding conceptualizes these responses as advantageous in the acute period during and shortly after a traumatic event and recognizes that these responses can become patterned across time and over-generalized (Perry et al., 1995).

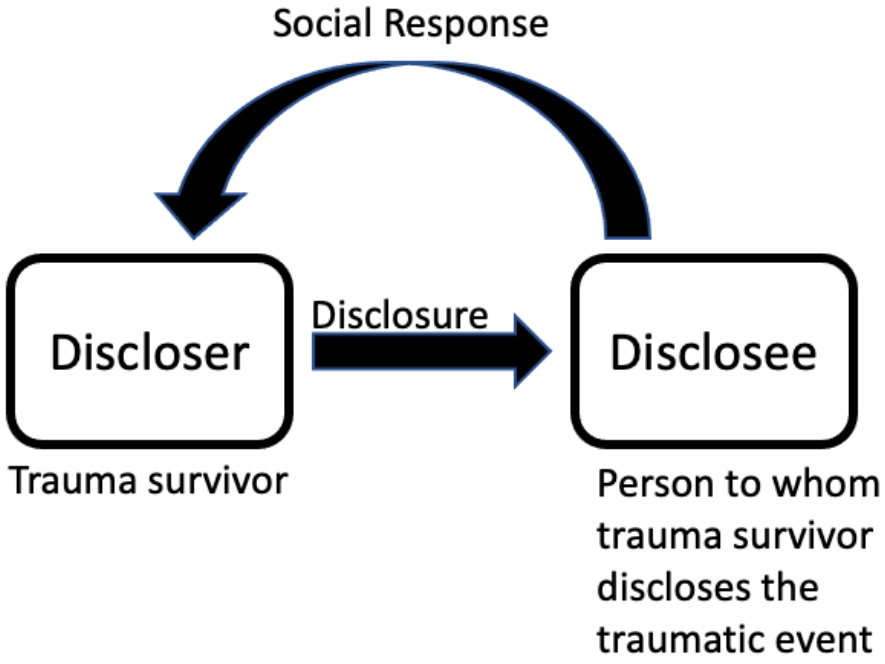
The second tenant of trauma-informed care is to recognize the vast impact trauma has and that adverse experiences are not limited to an outlying number of persons, but rather the majority. In fact, some of the epidemiological statistics of prevalence rates of trauma exposures are astoundingly high. Kessler et al. (2017) found that 70.4% of persons (sample size > 68,000) reported on a World Mental Health survey spanning 24 countries at least one experience of adversity across the lifetime. Another study focusing on female civilians in the United States (*N*

= 4,008) found that 69% experienced at least one trauma generally and 36% experienced a sexual form of trauma (Resnick et al., 1993). In a college sample (N = 440), 84% of undergraduate students reported one traumatic experience and 33% experienced greater than four adverse events (Vrana & Lauterbach, 1994). Well known are the radical numbers associated with the Center for Disease Control and Prevention (CDC) and Kaiser Permanente's original Adverse Childhood Experiences study (ACE; Felitti et al., 1998) showing 52% reported at least one traumatic experience during their developmental years and 6.2% reported greater than four adverse experiences. According to the CDC, more recent estimates indicate that 61% of adults report experiencing at least one ACE during their childhood and nearly 17% report four or more (CDC, 2019). Other recent overviews have shown developmental exposure to at least one adverse event ranging between 40% and 60% (Ports et al., 2020; Sacks & Murphey, 2018). Thus, the quantity of trauma representative in any given population deserves attention and a trauma-informed view is important in understanding the response to trauma. A trauma-informed view can also guard against contexts that could yield a DINT or further traumatization.

The trauma-informed (TI) model of care, which is essentially the application of contemporary trauma theory to clinical practice, was first termed by Harris and Fallot (2001). The TI model provides a way to better understand that adversity is etiological to various presenting issues. Conceptualizing through this lens helps to prevent further traumatization within the treatment process. Today, TI might be thought of as a conceptual framework that is applied through understanding the impact of trauma and bringing a neurobiological understanding to the table to work with the symptoms that might be manifesting. The framework entails not only attribution of symptoms to the originating trauma(s) persons have experienced, but "core characteristics" of "trust, safety, choice, collaboration, and empowerment" (Knight,

2019, p. 79) with particular emphasis on safety and collaboration (Barrett & Stone Fish, 2014). Basically, trauma tends to entail a sense of lost control and disempowerment; a trauma-informed approach provides the opportunity for the survivor to have an antagonistic or reparative experience, in this case, holding the control/power and making autonomous choices (Levenson, 2017). A trauma-informed perspective might expand to incorporate a DINT experience as a subjectively appraised traumatic experience with clinical implications around sense of trust or safety in sharing with a therapist or with other significant family members present in the therapeutic context.

Figure 1. *Disclosure and Social Response Feedback Process*



As shown in Figure 1, disclosure is inherently an interpersonal feedback process. The disclosure of the trauma elicits a reaction within the person being disclosed to (the disclosee), and the disclosee's corresponding response in turn impacts the trauma survivor (the discloser). This feedback process may result in the strengthening of the relationship and boost the psychological, emotional, and physiological status of both the discloser and the disclosee.

Unfortunately, problematic social responses during the disclosure process can deleteriously affect interpersonal relationships. This can take the form of an attachment disruption, or attachment injury (Johnson et al., 2001), violating trust or expectancies (Bowlby, 1969) and resulting in what might broadly be considered a betrayal trauma (Freyd, 1994, 1996).

Betrayal Trauma. It is important to emphasize that, in the original formulation of *betrayal trauma theor*y, the term "betrayal trauma" specifically referred to traumatic experiences resulting from childhood sexual abuse (Freyd, 1994). The crux of betrayal trauma theory is that betrayals of hierarchical trust due to sexual violations within the parent-child dyad alter the encoding of these memories (Lindblom & Gray, 2010) based upon an acute dissociative response (Giesbrecht & Merckelbach, 2009). This theory emphasizes survival attachment motives that serve to maintain the relationship (i.e., a parent-child subsystem), for example by relying on memory amnesia (Freyd, 1994; Lindblom & Gray, 2010). It addresses the maintenance of the attachment relationship through denial of the abuses (similar to Stockholm's Syndrome; Graham, 1994; Jülich, 2005; Wallace, 2007). This form of denial is similar to the concept of *doublethink* that Herman (1992) borrowed from Orwell's novel *1984.* As cited in Herman (1992, p. 87), Orwell defined doublethink as: "the power of holding two contradictory beliefs in one's mind simultaneously, and accepting both of them. The [person] knows in which direction his memories must be altered; he therefore knows that he is playing tricks with reality; but by this exercise of *doublethink* he also satisfies himself that reality is not violated." Because of the need to be dependent and form primary attachments, the child engages in a psychological defense that allows them to hold a belief that the parent is good and trustworthy, which is obviously objectively discordant from lived experience. The child may then internalize that they are the one that is in the wrong (Herman, 1992).

Some theorists have expanded the application of betrayal trauma theory from solely incest survivors to other interpersonal relationships wherein there has been a violation (Gagnon et al., 2017). The betrayal, either isolated or repetitive, can have a range of symptomology associated with attachment expectancies, identity development, and negative affect including shame (Gagnon et al., 2017), which may diverge from and/or supplement the standard post-traumatic stress symptoms associated with a diagnosis based on current diagnostic tools and understanding. Betrayals within dynamics pertinent to minority status, injustices, or sociocultural climate have been referred to as cultural betrayal traumas within *cultural betrayal trauma theory* (Gomez, 2019). In other words, betrayal trauma theory and its offshoots expand understanding of different taxonomies of trauma and emphasize that the corresponding symptoms and long-term implications extend beyond those articulated in the DSM-5 criteria for PTSD.

Although betrayal trauma theory and its extensions might augment or fit within the disclosure trauma context, these conceptualizations or frameworks are different than the DINT construct that I am proposing here in that they speak to understanding why survivors of child sexual abuse and other abuses within relationships are reluctant to disclose and might even repress memories related to the abuse. They do not speak to disclosure processes themselves or to the notion that such disclosures can become traumatic experiences in their own right. DINT specifically addresses the trauma that can result from interpersonal disclosure and is much broader in theoretical application.

DINT as a theoretical framework explains the process of disclosure as being potentially a traumatic experience with its own unique sequelae of appraisal and responsivity. There usually is an attachment disruption and betrayal component, but this applies to a variety of interpersonal relationships on a spectrum of closeness at the time of disclosure (and potentially decreasing

feelings of closeness if the disclosure was particularly painful). The nature of the DINT phenomenon is different than that of betrayal trauma as highlighted in betrayal trauma theory. DINT focuses on relationship disruption and injury during and after a difficult disclosure and posits a generalization and sensitization within future relationships for the discloser (post-DINT symptoms).

Summary. Contemporary trauma theory reflects important shifts in understanding that break from its historical roots. Principal among these shifts are the expansion of what qualifies as trauma and the movement to depathologize the symptoms experienced by survivors. These shifts, along with advances in technology and neuroscience, have heightened focus on the neurophysiological underpinnings of trauma and the appreciation of the role of interpersonal processes in shaping the neurobiology of the individual and collective. Therefore, it is important to outline the current understanding of the neurophysiological processes underlying trauma symptomology and the increasing emphasis on the influence of social dynamics on the neurophysiology of the individual. In the following sections, the physiological and neural correlates for the individual and the relational system are addressed.

Interpersonal Neurobiology (IPNB)

There has been a growing recognition within various fields of the importance of simultaneously incorporating dyadic/relational processes and neuroscience to deepen understanding of human experience and functioning. Rather than focusing on individuals in isolation, there is a general movement toward addressing interdependency and intersubjective emotionality while also linking these processes to their underlying neurobiological mechanisms. Examples of this emerging zeitgeist within psychological and related disciplines include affective neuroscience (Davidson & Sutton, 1995; Panksepp, 1998), social neuroscience

(Adolphs, 2003; Cacioppo, 2002), relationship science (Berscheid, 1999; Reis, 2007), and sociophysiology (Gardner, 1997; Waid, 1984). Of particular relevance to research and clinical applications within marriage and family therapy is the field of interpersonal neurobiology or IPNB (Cozolino, 2010; Schore, 1994; Siegel, 1999).

The beginning of every book within the Norton series of interpersonal neurobiology contains a small box with a brief introduction by the current editor of the series: Dan Siegel (founding Editor), Allen Schore (2007-2014), or Louis Cozolino (2014 to present). This introduction includes a statement that IPNB "enables us to understand that the structure and function of the mind and brain are shaped by experiences, especially those involving emotional relationships." Schore (2019, p. 2) expanded this definition by adding: "and to understand the relational mechanisms by which communicating brains align and synchronize their neural activities with other brains". There are many concepts and processes that are emphasized within the broad field of IPNB that are relevant to the present work. Of particular relevance are IPNB's consideration of the following: mind, neuroplasticity, integration, and window of tolerance. Each of these is reviewed below. In addition, the brain and broader nervous system of the individual are structured to develop and operate within a social world. This reciprocity between the individual brain and the social environment is emphasized in the subsections below on the Interpersonal Brain and Polyvagal Theory. In each of these subsections I explicitly describe how the relevant concepts apply to the phenomenon of disclosure trauma that I am proposing.

Mind. According to Siegel (2012), the mind is defined as "an embodied and relational process that regulates the flow of energy and information" (p. 1-4). The notion of "embodied" implies that there is an inherent etiology of the mind that is rooted in neural, physical, and electrochemical processes and that the mind is resident in and emanates from the brain and

nervous system. *"Relational"* emphasizes that the mind is shaped and cultivated via interactions with other people and the environment. The term "process" connotes that the mind is not a static object, but an active function. The mind is an emergent process within a greater system of complexity that holds key systems properties such as self-organization, and it is recursive in that it emerges from *and* regulates the body and relationships. Within this definition of mind, the term "regulation" entails a feedback loop that serves either to maintain a homeostasis or to cultivate a desired change state. "Flow" is the shifting states over the course of time, "energy" refers to the electrochemical physiological component, and "information" is that energy infused with meaning-making or symbolic understanding. In other words, the mind is a complex system that is rooted in neurophysiological structures and functions within the body, dynamically shaped by interpersonal interactions between people and other environmental experiences, and reciprocally can impact people and the environment.

Neuroplasticity. The concept of neuroplasticity is relatively novel and antagonistic to the original understanding of finality within the organ of the brain (Cozolino, 2014; Schore, 2003). Previous understanding viewed the brain as permanent after adolescent neural pruning and that growth or cultivation of new neurons into adulthood was an impossibility (Teicher et al., 1995). However, recent research has shown that the brain continues to connect neurons in new ways creating dendritic connections based on experiences throughout the lifetime (Cozolino, 2014; Schore, 2003; Siegel, 1999). There has been ample evidence of synaptogenesis throughout the brain well into adulthood (Karim et al., 2021). While it is well established that the brain changes considerably during infancy and early childhood and that this development is dependent upon quality of relational process, it is now understood that this experience-dependent process continues in some form throughout life (Perry et al., 1995; Perry & Szalavitz, 2006). A

particularly important structure regarding memory is the *hippocampus* located in the limbic system, which is known for its potential in neurogenesis (Kempermann et al., 2022; Lu et al., 2003). The plasticity of neural linkages within the memory and emotion systems of the brain is an important neurobiological process to recognize when considering the potential impact of negative interpersonal disclosure on traumatic symptoms in adulthood. This issue is considered more fully in the upcoming sub-section on the interpersonal brain.

Integration. According to Siegel (1999) the field of IPNB regards *integration* to be the defining property of health and well-being. Integration is the "linkage of differentiated elements into a coherent whole" (Siegel, 2017, p. 86). Siegel (1999, 2017) applies the concept of integration at three levels: a) neural integration within and between brain structures, b) an individual's integration of memories, emotions, and cognitions surrounding an event, other person, or diverse self-states, and c) shared or reciprocal integration of experience between two or more persons. Symptoms of trauma represent disrupted patterns of integration at each of these levels. Common symptoms of posttraumatic stress such as flashbacks are due to a disintegration of autobiographical understanding of the event as a memory from the past (Hellawell & Brewin, 2004), rather the body interprets the event as occurring in the present and relives the experience, or salient aspects of the memory (Brewin, 2003), sometimes over and over again. This in part is due to the hippocampal structure's glucocorticoid receptors being activated by the influx of cortisol at the time of the traumatic event (Griffin et al., 2014). The encoded memory system of trauma is inherently fragmented rather than integrated (Bedard-Gilligan & Zoellner, 2012; Levine et al., 2018). Neuroanatomical structures associated with intense emotional valences, such as fear (e.g., the amygdala) are dissociated from structures and areas associated with sensory awareness (e.g., the orbitofrontal cortex and thalamus) and from the autonomic nervous

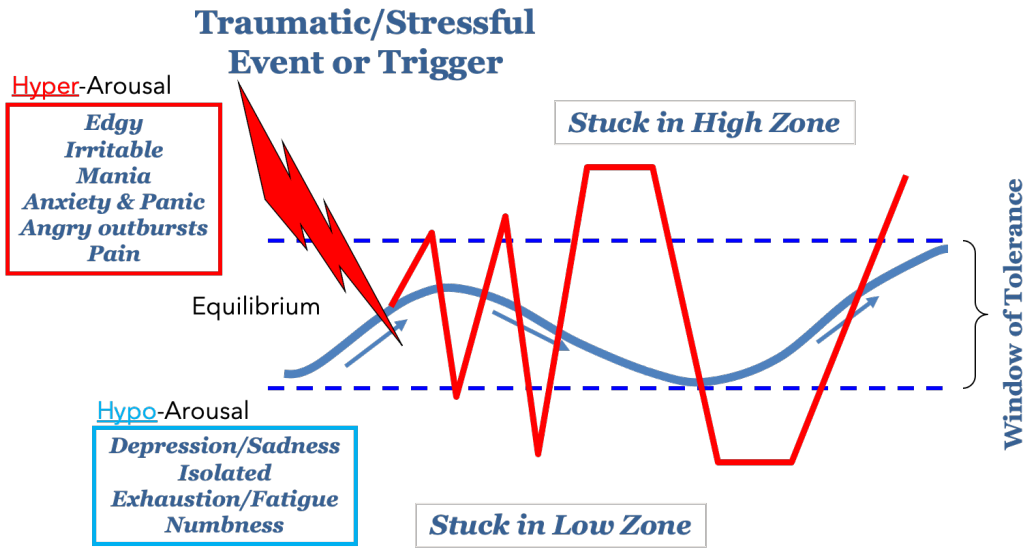
system regulators (e.g., the midanterior cingulate cortex and hypothalamus; Giotakos, 2020). In other words, various memory fragments such as emotion, body sensation, and cognition surface separately from one another rather than as a coherent narrative with integration of all elements into a consolidated memory (Hellawell & Brewin, 2004). Within the context of traumatology, persons in a state of posttraumatic stress are suffering due to a lack of integration "[i]f either differentiation or linkage is not present however, integration is impaired and you are likely to experience states of rigidity or chaos" (Siegel, 2017, p. 87).

Integration requires both differentiation and linkage. It is interesting that these two components of integration are evident when characterizing healthy family functioning within *Bowen family systems theory* (M. Bowen, 1978). "Differentiation" within Bowen family systems theory can be defined as the ability to function autonomously and without emotional reactivity in response to others; the ability to be reflective regarding interpersonal dynamics (M. Bowen, 1978). In contrast, persons lacking in differentiation (i.e., "fused") tend toward stronger emotionality and subsequent reactivity in the face of anxiety, or lack of access to emotionality at all. A strong component inhibiting successful differentiation is emotional cutoff, whereby conflict remains unresolved (Kerr & Bowen, 1988). This aspect of differentiation within Bowen family systems theory resembles the concept of linkage within IPNB. So, in effect, "differentiation" within the context of Bowen family systems theory incorporates both healthy differentiation and linkage as conceptualized within IPNB. The individuals within the family must be appropriately differentiated (distinct) from one another and also cohesively linked (connected) with one another.

Integration at an interpersonal level can be perturbed by undifferentiation that leads to dyadic chaos or rigidity. According to Bowen (1978), this disintegration manifests as systemic

anxiety, fusion, and cutoff. From a trauma perspective, this dyadic disintegration can be seen in reciprocal responses on the hyperarousal-hypoarousal continuum, yielding escalation, conflict, or withdrawal. Interactional cycles may be mis-attuned, lack reciprocity, desynchronized, be unable to support co-regulatory function, or be deficient of concordant intersubjectivity. It is conceivable that distressing interpersonal disclosure experiences have the potential to lead to disintegration at not only the interpersonal level, but also at the individual and neurological levels. If some of these aforementioned tenants within familial relationships are present in the dynamics of an interpersonal disclosure, the interaction may be blanketed with undifferentiated, emotional reactivities rather than differentiated, thoughtful responses. For instance, the non-differentiated partner might mirror the heightened activation of the discloser and respond in an anxious manner that might create more distress rather than adaptive co-regulation or support.

Figure 2. *The Window of Tolerance Model*



Window of Tolerance. A common way to conceptualize adaptive versus maladaptive functioning from an IPNB perspective is to consider patterns of arousal (Figure 2) as they flow within and outside a *window of tolerance* (Siegel, 1999) or *optimal arousal zone* (Ogden &

Minton, 2000; Wilbarger & Wilbarger, 1997). What is meant by the term "arousal" varies somewhat in the literature, but typically implies some form of valanced subjective emotional experience, such as anxiety, fear, anger, and so on. The degree of arousal also is typically linked to the intensity and form of autonomic nervous system activation (Siegel, 1999). The basic idea is that people can adaptively respond to some degree of fluctuation in emotional and physiological intensity, but beyond certain thresholds, their coping mechanisms become overwhelmed. The window of tolerance is the region or zone of arousal intensity within which a given person (in a given context) is able to respond in a regulated manner (Figure 2). Within this window of regulation, otherwise known as homeostasis or equilibrium, is the naturally occurring fluctuation of the parasympathetic and sympathetic branches of the autonomic nervous system. There is a natural co-activation whereby vagal tone (Porges, 1992, 1995) maintains a baseline level of activation that is optimally balanced. Beyond an upper limit of arousal, the person experiences a dysregulated state of hyperarousal. Conversely, beyond a lower limit of arousal, the person experiences a dysregulated state of hypoarousal. Dysregulation can also take the form of sharp vacillations between hyper- and hypoarousal. Both extremes have implications on the cardiovascular, respiratory, endocrine, and neurological systems in contrasting forms for the purpose of responding to appraised threat or stressors and account for many of the symptoms associated with traumatic stress and post-traumatic stress disorder.

There are individual differences in the upper and/or lower limits and, thus, the width of the window of tolerance. These individual differences reflect a combination of inherited temperament and life experience. The window of tolerance for a given person also can narrow or widen based on circumstance or environmental conditions/experience. For a person disclosing a traumatic experience, the window of tolerance may initially be quite narrow because of the

sensitivity of the topic and/or because of a compromised capacity to tolerate heightened emotional and physiological states of arousal (i.e., perhaps contingent upon chronic PTSD due to the originating event). This reduced tolerance may impact the appraisal (perception) and interpretation of the social response of the other, elicit specific responses from the other, and elevate feelings of distress during the time of disclosure.

As already discussed, neuroplasticity occurs through each new interpersonal experience, creating protein genesis within synapses (Shamay-Tsoory, 2022), linking various neuronal firings. This experience-dependent learning and subsequent growth is a positive adaptation; however, when novel experiences are traumatic, the linkages created in the brain can generate new fear-based associations and kindling (Rosen & Schulkin, 1998). These processes narrow the window of tolerance for any emotions laced with that novel experience. In the case of an already heightened emotional disclosure, an adverse response creates a significant relational disruption and a novel overwhelming experience exhibiting hyperarousal or hypoarousal in response to the disclosure acutely and chronically. This chronic response is due to a narrowing window of tolerance associated with the traumatic disclosure experience and long-lasting attachment rupture within the relationship, or possibly generalized to other relationships with expectation of similar negative response. This could lead to cognitive processes associated with chaos or rigidity and the disintegration of the experience as evidenced by intrusion symptomology.

From a systemic perspective, during the acute disclosure experience, both persons in the dyad may fall outside of their respective windows of tolerance creating a chaotic, dysregulated state at the dyadic level resulting in a traumatizing interaction pattern. For example, if the person disclosing is very anxious (hyper-aroused) and the other person responds with silence as they are not sure how to respond and freeze (hypo-aroused) this could leave the discloser feeling worse.

Specifically, they may feel “dropped” or emotionally abandoned due to the expectancy of an alternative response and the heightened need to feel heard, seen, and accepted. This interaction pattern likely will influence the expectancies going into any future interactions, narrowing each person’s window of tolerance, and heightening the prospect for a repeat of the dysregulated interpersonal experience. Alternatively, this traumatizing interaction could create a pattern of avoidance and reluctance to share, which prevents a repeat of the dysregulated interaction, but also becomes a barrier to support-seeking and decreases interpersonal connection.

The Interpersonal Brain. The physical brain is a complex network of subcomponents that are differentially integrated. A traditional understanding of the general composition of the brain identifies three distinguishable sections: the brainstem, limbic system, and cortex. These sections often are referred to as the reptilian brain, paleomammalian brain, and neomammalian cortex, respectively, to reflect their evolutionary progression (P. D. MacLean, 1985, 1990). Each of these sections is implicated with various trauma processes. The brainstem is responsible for autonomic functions, including reflexes, modulation of heart rate, and respiratory processes. The limbic system holds key structures for emotional valences, memory, and attachment. The cortex is the key to emotional and psychological regulation. The traumatized brain is characterized by heightened limbic response with damaged circuitry to the medial prefrontal cortex (MPFC), which is unable to properly regulate the subcortical regions leaving the survivor with the hyper-arousal and hypo-arousal symptoms associated with PTSD (L. M. Shin et al., 2006).

The Interpersonal Neurobiological perspective moves beyond this *triune brain* categorization of brain structure (P. D. MacLean, 1977), which is individualistic, to highlight structures that are most relevant to interpersonal processes and to reciprocal neurobiological influences, which is systemic. In addition, an interpersonal neurobiological perspective would

emphasize that the neurophysiological impact on the traumatized individual reverberates in relational systems yielding secondary (Campbell et al., 2001) or vicarious (Boscarino et al., 2010) trauma. This reciprocal influence might be another mechanism for understanding the social response during the DINT phenomenon.

Cozolino (2014) notes three important transitions in the paradigm shift from a within-individual conceptualization of the brain (the personal brain) to an interpersonal conceptualization of the brain (the social brain). First, in terms of cortical structure, researchers traditionally focused on four distinguishable lobes (frontal, parietal, temporal, and occipital) that map out the surface of the brain (Casillo et al., 2020; Pearce, 2006) and the corresponding emphasis on sensory, motor, and cognitive processes (Damasio & Anderson, 2003). The interpersonal neurobiology perspective places greater emphasis on other cortical distinctions, primarily the orbital medial prefrontal cortex (OMPFC), somatosensory cortex, cingulate cortex, and insular cortices that are more involved in social and emotional processes.

The OMPFC functions as a bridge between the subcortical limbic system and the prefrontal cortex (PFC). In this regard, it "serves as a convergence zone and association area for polysensory and emotional information" (Cozolino, 2014, p. 44). Important inhibitory control over amygdaelic activation is another integral mechanism of the OMPFC, as are affect regulatory processes. Bottom-up sensory afferent receptors are associated with the somatosensory cortex, which interprets the physical experience of the body within a given context or environment. Due to the implicit nature of information acquisition, the somatosensory cortex is recognized as having involvement in intuition (Damasio, 1994). The implicit nature bottom-up processing is also important for the understanding of intrusion symptoms of PTSD and the regular distress that those with narrowed windows of tolerance endure. The cingulate cortex is also a center of

filtration and integration from various inputs, such as sensory, autonomic, emotion, and motor. This structure is also activated within the dyadic parenting relationship and empathic attunement (Cozolino, 2014). The insula (or insular cortex) integrates and filters information from the limbic region and, in doing so, it sends signals to higher cortical structures.

Second, this emphasis on the neurological underpinnings of social-emotional functioning has brought with it a heightened focus on the functions of the right hemisphere rather than the left hemisphere, which received prominence in the more reductionistic models that primarily focused on "cold" cognition (Nord et al., 2020; Unsworth et al., 2005). Left hemispheric dominance has been confuted and now the field holds greater understanding of the integrated roles of each hemisphere in global functioning (Pinel & Dehaene, 2010; D. D. Shin et al., 2022). Cozolino (2014) describes how the right hemisphere is predominantly a culmination of early experiences that are inherently interpersonal within the caregiver-infant dyad yielding subsequent physiological arousal responsivity. The right hemisphere is now recognized as invaluable in a wide variety of social-emotional processes and autonomic physiological functioning (Schore, 2008). For instance, the right hemisphere is largely responsible for avoidance, bonding/affiliation, eye gaze, facial recognition, and interpretation of nonverbal communication (Porges, 2011).

It is noteworthy in understanding trauma processes that the right hemisphere is principally involved in negative emotionally valenced experience (Gainotti, 2019; Hartikainen, 2021; Schore, 2008; van der Kolk, 2000). In particular, the right amygdala is heavily involved in fear and threat assessment (LeDoux, 2003; Öhman, 2005; van der Kolk, 2000) and with memory for distressing experience and associations (Maren, 2003) stored specifically in the basal nuclei and lateral amygdala (Nader et al., 2000). Traumatic experiences and chronic post-traumatic

stress are associated with volumetric alterations in the size of the amygdala (Giotakos, 2020; van der Kolk, 2014; Woon & Hedges, 2009). This corresponds with increased perception of threat and anxiety, yielding greater myelinated dendritic connections, or plasticity (Woon & Hedges, 2009) between neurons underpinning this chronic activation. Fear conditioning (Keifer et al., 2015; LeDoux, 2007) plays a vital role conceptually in understanding this schematic prioritization of fear- and threat-associations across time. There is an inability to ameliorate or extinguish these associations despite dissonant information disconfirming threat stimuli (conditioned stimulus) in the present, which is accounted for in a hypo-activation of the MPFC in PTSD (Koenigs & Grafman, 2009).

The amygdala, thus, might predispose the discloser to perceive threat, particularly if the facial expression of the disclosee appears fearful, shocked, or horrified by what they are hearing. This can factor into the DINT experience for the discloser making this a distressing experience. Likewise, the disclosee may experience subcortical activation and corresponding threat perception based on what they are hearing and processing, again coupled with the automatic amygdaelic response to seeing the distressed facial expression of the discloser. The amygdala is particularly quick to detect threat regarding fear-based facial expression in another person (Mendez-Bertolo et al., 2016). This quick assessment of fear in others addresses the right hemispheric focus on social dynamics and the prioritization by the right amygdala on interpersonal cues, beginning in infancy. According to Mendez-Bertolo et al. (2016), facial expressions of others might take precedence over other forms of threat. The primacy of facial cues in threat assessment at a deep neurological level is directly relevant to how face-to-face interactions during disclosure may predispose some interaction cycles to yield a DINT.

Cozolino (2014) states that the orbitomedial prefrontal cortex (OMPFC) “is the executive center of the right hemispheric networks of attachment, social relationships, affect regulation, and higher level input into bodily homeostasis” (p. 64). For many people with PTSD, the amygdala is more responsive and larger in volume (size) and the MPFC has diminished responsivity and is lower in volume (Liberzon & Sripada, 2008; Rauch et al., 2000). Although the MPFC generally has the ability to inhibit amygdala responsivity, this circuitry can be compromised in trauma survivors (Koenigs & Grafman, 2009). When triggered by real or perceived threat, the amygdala is excessively activated, the PFC doesn’t deactivate the amygdala, and the amygdala keeps fight-flight response going such that the person does not recognize that the threat is over and that it is safe to calm down (see Resick et al., 2017).

The third transition brought upon by an interpersonal neurobiological approach is the recognition of the critical impact of interpersonal interaction at the neurobiological level. This recognition stems from research demonstrating development in the neural correlates related to emotional attunement and affect regulation in the right hemispheres both of caregiver and child alike. This “right brain to right brain” interaction yields optimum development for the child and optimal functioning for the adult and can translate to all interpersonal interactions across the lifespan when it incorporates synchronicity. For example, infants had higher positive affect immediately following mutual gaze with their caregiver, suggesting that the caregiver provides important co-regulatory cues that eventually translate into independent affect-regulation (P. C. MacLean et al., 2014). The opposite is true with dysynchrony, which, if chronic, would lead to a disruption of the neural substrate for affect-regulation (Schore, 2012, 2019). This co-regulation of affect, or in the later example, inability to do so, can create intersubjectivity in a way that soothes or can create rupture and, across time, discordant intersubjective experiencing. The

neural damage that can ensue from lacking co-regulatory function of the caregiver on the infant's emotional state is tragic; the infant is left with inner turmoil and a physiological cascade of neurochemical toxicity with both an immediate adverse impact and a very real potential for permanent alterations in stress reactivity, self-perception, and relational orientation. Reflecting back on the earlier definition of IPNB and its emphasis on relational mechanisms in neurobiological development, this principle of right-brain to right-brain co-causality is the fundamental interpersonal mechanism by which social experience shapes the mind and brain.

While advocating for the essential role of interpersonal experiences in shaping neurobiological development, Cozolino (2014) offers the intriguing notion of a "social synapse" somewhat akin to a neural synapse. Information from one neuron to another traverses a physical gap (synapse) between them via neurochemical exchange. This exchange results in neurobiological changes on both sides of the synapse. Likewise, information from one person to another must traverse a physical space. The exchange of information across this social synapse also results in neurobiological alterations within both interacting parties. In effect, one person affects another at the neurobiological level (and vice versa). This recognition of reciprocal neurobiological influence (inter-brain synchrony) stands in stark contrast to the intra-brain focus of more conventional cognitive neuroscience.

Polyvagal Theory. Polyvagal Theory is important in understanding dyadic interactional patterns from a neurophysiological and evolutionary perspective (Porges, 1995, 1998, 2001, 2003, 2011). This theory focuses on the hierarchical phylogenetic structure of the mammalian nervous system. Within this hierarchy, the dorsal vagal complex (DVC) is the most evolutionarily primitive system and is associated with immobilization or freeze responses to threat. The sympathetic nervous system (SNS) mediates responses that are generally categorized

as flight and fight behaviors (Cannon, 1928) and otherwise known as mobilization (Porges, 2007). The myelinated ventral vagal complex (VVC) is the most evolutionarily recent system. The VVC allows for rapid, parasympathetically mediated change in cardiovascular and metabolic output in response to environmental demands without activation of sympathetic arousal. The influence of the VVC originates in the nucleus ambiguus. In addition, the VVC is integrated via afferent nerves to the corticobulbar tract associated with facial expression and vocalization. Critically, the VVC has the capability to suppress or down-regulate the influence of the more evolutionarily primitive systems on physiological and behavioral responses to threat (such as fight, flight, and freeze). The VVC is also coordinated with the development of what Porges (2003) refers to as the *social engagement system* (SES).

The SES is a fundamental component of our dependency on interrelatedness as a biological imperative for optimal biopsychosocial functioning (Porges, 2003). The integrated control of cardiovascular and facial expressiveness/vocalization is a defining feature of the SES. The relational process is bidirectional in that the physiological state of one person is expressed to the other person within a dyadic interaction through muscular alterations on the face and reciprocally the expressiveness feeds back.

Several neurophysiological systems comprise the SES according to Polyvagal Theory. Socioemotional regulatory behaviors manifest from the cortex that controls lower subcortical primitive motoric neurons that are necessary to engage with social communication. These include facial expressiveness, vocalization, and filtering auditory sound to zero in on human voice. These same motor neurons located in the brain stem are directly linked within a neural system to regulate the autonomic nervous system; specifically decreasing arousal and heart rate to create a physiologically calm baseline state. Moreover, the aforementioned neural systems of

the SES impact hormones related to the parasympathetic system, such as oxytocin and vasopressin (Porges 1998). In summary, the interactions among the neural components produce an integrated system that co-regulates behavior and visceral responses within a socially engaged context.

Another element within Polyvagal Theory is the construct of an unconscious appraisal system to determine whether the self-system is safe. In mammalian species, social cues are critical to assessing safety versus threat and to regulating emotional and behavioral responses to threat (Porges, 2011). Facial expressions, vocalizations, movements, and gestures are all important interpersonal signals regarding the presence of danger or safety in the physical and/or social environment. Porges (2011) defines the process of *neuroception* as being when "neural circuits distinguish whether situations or people are safe, dangerous, or life threatening" (p. 11). This is a chronic unconscious process that is constantly occurring, evaluating threat within the interpersonal and physical environment. The process yields emotional and behavioral shifts in response based on feeling safe versus threatened. During moments when feeling safe, the defensive postures need to be inhibited to participate in adaptive social behaviors, such as cooperation and seeking or receiving support. In some individuals, neuroception may be or become misattuned and this can generate defensive autonomic responses and the inability to inhibit this response in a benign context. This response can intrude on constructive social engagement processes.

In a published interview, Porges directly proposed that traumatic experiences could alter the automatic neuroception threshold for threat detection, creating false positives and corresponding physiological and behavioral defense reactions in otherwise safe social contexts (Devereaux, 2017). These false positives can be in response to benign environmental

associations, but also directly within interactional cycles. This later form of a faulty neuroception can explain what is happening within the DINT phenomenon.

The notion of neuroception can also be mapped onto the window of tolerance model, with assessing safety corresponding with being within the window, assessing danger as being in the hyper-arousal zone, and assessing life threat as being in the hypo-arousal zone. Many times, these responses become patterned across time when encountering stressors, thus the window increasingly narrows with further sensitization (Perusini et al., 2017) and overgeneralization (Kaczkurkin et al., 2017) of fear responsivity yielding day-to-day event related stress to cause persons to respond outside the window of tolerance with chronic trauma responses.

Of particular relevance to the present work on interpersonal disclosure, Polyvagal Theory emphasizes the importance of others' responses in shaping emotional and physiological reactions during social engagement. If social signals from the other imply safety, defensive responses are inhibited and constructive social engagement is facilitated. However, if social signals for the other imply (or are perceived to imply) danger or threat, automatic defensive responses and physiological stress reactions result. Thus, if a trauma survivor's vulnerable disclosure to another person is met with a reassuring and validating response, this likely will reduce the prospect of fight-flight-freeze reactions and promote social affiliation. However, if the disclosure is met with distress, alarm, or blame, aversive mobilization (fight-flight) or immobilization (freeze) reactions likely would ensue. Moreover, as described in the earlier section on IPNB these neurophysiological patterns that are characteristic of trauma symptomology may become established and become associated with the specific disclosure experience and relationship. These neurophysiological responses and may also be generalized to disclosure processes and interpersonal relationships more broadly.

Polyvagal Theory and the broader field of Interpersonal Neurobiology emphasize the vital role of social and interpersonal processes; however, they do not dive into the nature and development of those processes. A central component of the DINT phenomenon is the notion that disclosure of a vulnerable experience within a close relationship context magnifies the significance of the social response. My reasoning for emphasizing close relationships in the disclosure feedback process is grounded in attachment theory (Bowlby, 1969).

Attachment Theory

Attachment theory initially developed out of John Bowlby's interest in observing *in vivo* processes within the parent-child dyadic interaction. Bowlby noted the obvious shortcomings of the typical psychoanalytic approach of retracing childhood relationship dynamics via various forms of retrospection in order to determine the etiology of neurotic symptoms in adulthood. Observing such dynamics directly, Bowlby argued, should be especially informative as these should precipitate later psychological symptoms. For instance, Bowlby stated that "observation of how a very young child behaves towards his [*sic*] mother, both in her presence and especially in her absence, can contribute greatly in our understanding of personality development" (Bowlby, 1969, p. 3). In contrast, Bowlby noted that "not only Freud, but virtually all subsequent analysts have worked from an endpoint backwards" (p. 4). Similar to Harlow (1961), Bowlby valued an ethological orientation to understanding the development of attachment behaviors in humans.

What emerged from this heightened focus on direct observation of parent-child interactions was a recognition of the importance of the attachment system in infancy and throughout early childhood that has extended beyond the field of psychoanalysis. Bowlby (1969) regarded attachment behavior as an initially instinctual component of the survival system that

develops in critical ways through interaction with attachment figures. The attachment system is activated by appraisals of fear and fosters proximity-seeking behavior. Critically, there is an interplay between the attachment system and the exploratory system, which also is fundamental to human survival. The exploratory system is deactivated by external signals of danger that instead activate the attachment system and prompt a return to the attachment figure as a *secure base* (Ainsworth, 1963). Exploration is reactivated when signals of safety are received from the same attachment figure. Bowlby was especially interested in children's responses during separation from the attachment figure and stated that "when removed from mother by strangers young children respond usually with great intensity" (p. 3). This quote emphasizes the strong positive and negative emotions that are coupled with the attachment system. Bowlby continued that "…after reunion with her, they show commonly either a heightened degree of separation anxiety or else an unusual detachment" (p. 3). Again, Bowlby was highlighting the intense emotions associated with the attachment system and was foreshadowing the later identification of individual differences in childhood patterns of attachment (Ainsworth et al., 1978).

A central construct advanced by attachment theory relates to a child's formation, refinement, and utilization of schemas or mental representations regarding her or his attachment experiences. Bowlby (1969) borrowed the term *working model* from biology (Young, 1964) to capture his notion of the mental representations that infants form throughout their interactions with their primary caregivers and that they then apply to predict and understand themselves and their social world. Bowlby candidly dismissed the refusal of behaviorists to consider cognitive or internal processes and emphasized that concepts such as working models are necessary to capture the "complexities of behaviour and especially of human behaviour" (p. 81). Initially Bowlby (1969) referred to working models of the external world, including other people, as

environmental models and to working models of the self as *organismic models*. Ultimately, these concepts became referred to, respectively, as the *internal working model of other* (IWM-other) and *internal working model of self* (IWM-self; Bowlby, 1988).

Bretherton and Munholland (2016) and Pietromonaco and Barrett (2000) provide comprehensive overviews of the IWM construct (including contemporary understanding of the underlying neurobiological mechanisms). The development of adequate IWMs is necessary for the child to understand and, importantly, predict how her or his caregivers typically will respond in different circumstances. IWMs are "models" in that they are constructed to approximate social reality in a condensed fashion. They are "working" models in that they regularly are revised and updated in concert with new experiences with the caregiver and with the developing capacities of the child. They also are "working" models in that they are used to simulate alternatives and gauge the probability of different outcomes. For example, will the mother praise the child for eating his mashed turnips? Or what will happen if the child refuses to take her nap? Finally, IWMs are "internal" working models partly in that they are mental representations. They also are "internal" in the sense that they are *internalized* relationship patterns that "increasingly become a property of the child himself" (Bowlby, 1988, p. 129).

It is important to note from a systemic perspective that Bowlby recognized the inherent mutuality and interdependence that shapes the construction of IWMs. The child and the caregiver are both developing IWMs of themselves and the other in a reciprocal fashion. "It is evident that the particular pattern taken by any one child's attachment behaviour turns partly on the initial biases that infant and mother each bring to their partnership and partly on the way that each affects the other during the course of it. In practice, a constant problem is to determine to what extent the behaviour of each partner is the result of his or her initial bias and to what extent it has

resulted from the influence of the other" (Bowlby, 1969, p. 339). Bowlby further emphasized that IWM's create expectations of the other that inherently become confirmed and contribute to stabilized interactional patterns across time "independent of each partner considered separately" (Bowlby, 1969, p. 347).

While Bowlby (1969) commented that the utilization, testing, and refinement of IWMs likely are "subjected from time to time to whatever special benefits accrue from becoming conscious" (p. 83), he also emphasized that there is considerable automaticity within the context of attachment dynamics. Much of the process of expectancy and reciprocity is unconscious and based upon implicit application of IWMs shaped by previous experience-dependent learning within the relationship. These automatic reciprocal expectancies influence future interactional patterns and reinforce already established relational norms.

A child is a product of the relational context in which she or he is located. The child adapts to the nuances specific to the primary caregiver's responsivity to the child's needs. Thus, the pattern of attachment behavior the child cultivates is inherently an adaptation to the nature and quality of the caregiver's responsivity. When a behavior exhibited by the child rigidly adheres to initial expectations and cannot be altered *in vivo* in response to new relational experiences, it can be regarded as maladaptive and may yield symptoms consistent with various psychopathologies (Bowlby, 1969). Bowlby (1969) characterized these unchangeable patterns and expectations as being "out-of-date" IWMs (p. 82).

One utility of an IWM is that it creates a roadmap for future interactions both with familiar others in new situations and with unknown interaction partners (Bowlby, 1969). Thus, an IWM is generalized to other contexts and other persons across the lifespan. There is an

element of fitness of the previously established model that may or may not extend to any given relationship, potentially yielding discrepant expectations and self-fulfilling relational prophecies.

Attachment theory describes various categories of attachment style that are descriptive of the child's IWMs, the responsiveness of the caregiver, and the child's pattern of behavior in relation to the caregiver. These variations in attachment behavior are represented by the three attachment classifications identified by Ainsworth and colleagues (Ainsworth et al., 1978): secure, insecure avoidant, and insecure anxious-ambivalent. The quintessential element of Ainsworth's "Strange Situation" study was the qualification of the pattern of behavior between the infant and the caregiver before, during, and after a brief separation. During separation, a secure infant becomes emotionally distressed and upon reunification is able to be co-regulated by the caregiver and to return to exploration. The caregiver is regularly attuned and according to Winnicott (1960/1986) a "good enough mother" with predictable nurturance and responsivity. In contrast, an avoidant infant has adapted to a caregiver who is dismissive, withdrawn, and rejecting. Such an infant largely overlooks the caregiver's absence and is unconcerned with reconnection upon reunification. An anxious-ambivalent infant is highly distressed when the caregiver is out of sight and during reunification is simultaneously clingy and aggressive, expressing both fear and anger. An anxious-ambivalent child displays hypervigilance and enmeshment with the relationship, indicating preoccupation with the primary attachment figure. This pattern of behavior is etiological of the caregiver being inconsistent in responding to the child's needs, vacillating between withdrawal and intrusiveness, and often being misattuned to their child's emotions.

A fourth style of childhood attachment behavior subsequently was identified by Main and Solomon (1986). The *disorganized/disoriented* pattern of childhood attachment is particularly

relevant to traumatized populations. In the initial research using the Strange Situation paradigm, children expressing a disorganized/disoriented pattern were unclassified. However, as more children were observed using the paradigm, a recognizable pattern emerged. Upon reunification, the disorganized child presents strong emotions that are often contradictory, shows an inability to reconcile the separation-reunification experience, approaches the mother in indirect ways, and, of particular note, occasionally appears frozen or dissociated. The parents of most of these children had traumatic experiences in their backgrounds (Main et al., 1985). Interestingly, when parent-child interaction patterns were reassessed at age 6, there was a tendency for children categorized as disorganized in infancy to demonstrate controlling or punishing behavior toward their parents and to display "overly bright 'caregiving' behavior (inappropriate role reversal)" (Main et al., 1985, p. 83). This pattern implies a trend toward very early parentification.

The attachment categories of the infant tend to transcend across time (Main et al., 1985) and proliferate in interpersonal relationships in the adult (Bartholomew & Horowitz, 1991). The language as it translates into attachment styles in adulthood is as follows: the secure child typically remains *secure*, the anxious-ambivalent child often becomes a *preoccupied* adult, the avoidant child often becomes a *dismissive* adult, and the disorganized/disoriented child typically fits the *unresolved* pattern as an adult. The negative characteristics of the insecure and disorganized categories perturb optimal interpersonal functioning due to schematic expectations of others and suboptimal IWMs. Not surprisingly, the preoccupied adult is inundated with anxiety and fear, the dismissive adult is intimacy avoidant and withdrawn/self-reliant, and the unresolved adult holds intensely polarized feelings that manifest in deleterious ways (Alexander, 2012).

The attachment system is paramount to human survival and an infant is dependent on the caregiver to be attuned to her or his needs and to effectively coregulate his or her affective state. If this does not occur, the infant is left in extreme distress. Importantly, attachment disruptions at any stage of life can elicit intense feelings of fear, isolation, and anxiety (Johnson, 1986; St. Vil et al., 2021). The significance of attachment processes in adult human relationships is obvious and has direct bearing on the current topic of social responses to trauma disclosures. A person disclosing a traumatic experience is relying on the person to whom they are disclosing to serve as a secure base and to constructively coregulate the shared emotional environment. If an important relationship partner responds to the disclosure of a traumatic event with alarm, fear, disapproval, or disbelief, the discloser is likely to experience powerful reciprocal feelings of fear, shame, and abandonment. These powerful emotional reactions and the severe alterations to appraisals of the self and other (IWMs) can dramatically and perhaps instantaneously transform a once secure attachment relationship into a troubled, insecure, and distrusting one. Any felt security and safety previously associated with that relationship and relied upon by the discloser is thereby violated and this betrayal has the potential to be uniquely traumatizing.

In her clinical work with couples, Susan Johnson has referred to *attachment injuries* as "abandonments and betrayals at crucial moments of need" (Johnson, 2004, p. 267; see also Johnson et al., 2001). Examples of such moments of need are during childbirth or following a miscarriage. Disclosers of traumatic experiences also may be in a moment of need, and feelings of abandonment or betrayal by a close other during the disclosure process can be devastating to feelings of safety, trust, and connection. Thus, the DINT phenomenon that I am proposing can take the form of an attachment injury. However, DINT is a broader construct in one sense because it is not restricted to couples. It also is a more precise construct in another sense because

it focuses on a potentially traumatic attachment injury that specifically results from interpersonal disclosure. Additionally, the DINT conceptualizes long-term impact and potential for generalized fears associated with the disclosure experience, the relationship, and other relationship contexts. It also embeds itself in a larger narrative of Self and Other (negatively modifying IWMs) regarding the disruption and potentially leads to a reappraisal of the original event.

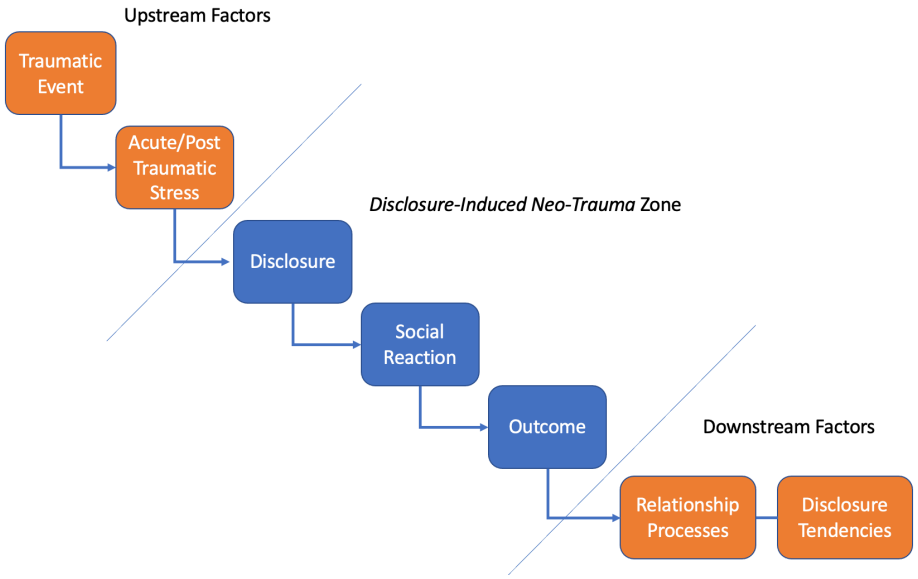
The Present Work

The above review of the theoretical backdrop for my conceptualization of disclosure-induced neo-trauma (DINT) highlights that my perspective: a) is trauma-informed, b) recognizes the neurobiological underpinnings of trauma symptoms, and c) focuses on systemic, interpersonal dynamics within close or otherwise influential relationships. In the following section, I more fully describe the phenomenon of DINT that I am proposing, with explicit conceptual definitions of key variables, a review of the pertinent research on interpersonal disclosure and social reactions to disclosure, and formal statements of the research aims and hypotheses.

Defining Key Variables

A specific disclosure experience occurs within a longer stream of processes as depicted in Figure 3. Upstream factors, such as the nature and severity of the originating traumatic event, set the stage for the disclosure experience. Traumatic experiences that are particularly overwhelming and that make the discloser feel more vulnerable are likely to magnify the potential impact of the disclosure – for good or bad. Within the disclosure experience itself, the nature of the relationship with the disclosee and the quality of the social response are instrumental. I refer to this as the "disclosure-induced neo-trauma zone." The characteristics of the social response, verbal and nonverbal, directly impact the psychological and physiological outcomes for the

Figure 3. *Disclosure Occurs within a Stream of Processes*



discloser, which on one end of the spectrum might be healing and reparative while on the other end be so detrimental as to yield a new traumatic experience distinguishable from the initial traumatic event. This impact is likely to be more magnified if the discloser is confiding in someone whose response matters to them; that is, if it is someone close to them whose response is more central to their feelings of trust, safety, efficacy, intimacy, and esteem. The psychological and emotional outcome of the disclosure then has downstream effects (again good or bad), including its impact on relational dynamics and future disclosure tendencies and expectations, perhaps on a more global level than within the specific relationship with the original disclosee.

The DINT phenomenon that I am proposing here and the corresponding hypotheses that I plan to examine can be placed within this upstream-downstream model. Essentially, I am proposing that a DINT is a new *traumatic event* that results from a *disclosure* of an earlier stressful or traumatic event. Before formally defining the DINT phenomenon and stating the

hypotheses, it is necessary to consider further what is meant by these two terms: *traumatic event* and *disclosure*.

Definition of Traumatic Event. The term *trauma* originated from the Greek word for wound and has been used for many centuries in the medical literature to refer to "an injury to living tissue caused by an external agent" (Merriam-Webster, 1994). This term was applied to psychological and emotional reactions to events by Eulenberg in 1878. During that era, psychological trauma began to take on a heightened interest within Western medicine and psychiatry as practitioners and theorists began to consider the perplexing reactions of patients suffering injuries to the nervous system due to accident (Erichsen, 1866; Page, 1883), war experiences (Da Costa, 1871; Myers, 1870), and the phenomenon referred to at the time as *hysteria* (Breuer & Freud, 1893-1895/1955; Charcot, 1887; Janet, 1889).

In defining trauma, it necessarily is difficult to separate the event producing a traumatic stress response from the traumatic stress response itself. In its specification of the diagnostic criteria for PTSD, the current version of the Diagnostic and Statistical Manual (DSM-V) first defines a *traumatic event*, which it identifies as "[e]xposure to actual or threatened death, serious injury, or sexual violence…" which can occur in several ways (viz., "directly experiencing," "witnessing," "learning that the traumatic event(s) occurred," or "repeated or extreme exposure to aversive details") (APA, 2013, p. 271). The subsequent DSM-V symptom criteria for PTSD (Criteria B – H) specify the psychological and emotional reactions to that event, the duration of the distress, the severity of the distress, and the requirement that no chemical or other medical cause be identifiable.

Other contemporary definitions of trauma tend to blend the event itself with the individual's response to and perception of that event. The National Institute for Mental Health

(NIMH) defines a traumatic event as "a shocking, scary, or dangerous experience that can affect someone emotionally and physically" (NIMH, n. d.). Likewise, the CDC incorporates psychological and emotional reactions into its definition: "an event, or series of events, that causes moderate to severe stress reactions is called a traumatic event. Traumatic events are characterized by a sense of horror, helplessness, serious injury, or the threat of serious injury or death" (CDC, n. d.). The National Health Service (NHS) further incorporates post-event psychological coping processes in its definition by stating that "trauma occurs when our usual way of coping and managing our day-to-day experiences is overwhelmed. It is frightening, and we feel helpless" (NHS, n. d.).

For purposes of this study, a traumatic event is defined idiographically for each person, such that the individual's subjective interpretation of an experience as traumatic is regarded as functional reality. Specifically, a traumatic event is an event (or series of events) that a person regards as being distinct from other events in their lifetime and as having caused them traumatic stress. This traumatic experience could have happened at any given point in that person's lifetime (i.e., childhood, adolescence, or adulthood).

Definition of Interpersonal Disclosure. Disclosure is a broad term that is widely applied. Disclosure can be considered a statement for legal transaction of property, a means of communicating who one is to the public, an act of transparency, a confession of something that previously was unacknowledged or hidden, or a means of confiding in another about something personal, sensitive, and vulnerable. Disclosure can occur in a wide range of contexts, from a private conversation with a close friend to legally binding statements made during cross-examination in a public court. Disclosure occurs when a person visits a medical professional for a presenting issue and discusses their concerns; when a person is coming out from a

heteronormative lifestyle to a congruent sense of self as being gay; it occurs when someone is giving a public presentation and is transparent about a personal journey or experience; disclosure occurs when making a police report after an experience of domestic violence; disclosure happens when confronting a perpetrator when on the stand during a court proceeding. All of these scenarios are valid exemplars of disclosure processes. However, in this dissertation, the term is being applied in a narrower sense to instances in which a person has experienced a distressing event and is *disclosing*, or sharing in confidence, that event with another person. The context of this form of interpersonal disclosure could range widely: from casually seeking social support (e.g., reaching out to a friend, romantic partner, or family member) to more formally relaying the experience to another in hopes of protection (e.g., legal authority or person in hierarchy). Examples of this type of interpersonal disclosure would be telling a friend about an assault, confiding in a therapist, filing a police report, telling a romantic partner about a childhood molestation, or reliving a memory as an adult about telling a parent about an experience within the family of abuse. The expectations and motivations of the person disclosing also can vary dramatically.

Importantly, the term disclosure as used here refers to a process and is therefore primarily used as a verb rather than a noun. The disclosure process is not a finite event that is completed in a moment. It is a dynamic and reciprocal process. A simplified depiction of the interpersonal disclosure process is depicted in Figure 1 (see page 22). The survivor of a distressing or traumatic event (the discloser) shares information about the event with another person (the disclosee). The response by the disclosee then has the potential to impact the discloser – for good or bad. At the extreme negative end of this potential impact is the phenomenon of disclosure-induced neo-trauma (DINT) that I am proposing.

Emotional Expression. The benefits and costs of disclosing distressing events have received substantial research attention in recent decades. A particularly large amount of this research has focused on the effects of experimental manipulations of the expression of emotions related to distressing events, patterned after the work of Pennebaker and colleagues (e.g., Pennebaker, 1997; Pennebaker et al., 1988, 1990; Pennebaker & Beall, 1986; Pennebaker & Francis, 1996). For example, a commonly used experimental paradigm instructs participants either to "write about your deepest thoughts and feelings about a trauma" or to "write about your plans for the day"; Pennebaker & Beall, 1986). The underlying *inhibition-confrontation model* proposed by Pennebaker posits that a person who has experienced a traumatic event tends to actively inhibit the experience and resulting symptoms. Written or oral disclosure allows the person to actively confront the traumatic event, easing inhibition processes and reducing the corresponding emotional and physiological stress (Pennebaker 1985, 1989, 1993). Meta-analytic reviews of the studies that have used versions of Pennebaker's *emotional-expression* paradigm have shown that the expression of emotions related to traumatic events typically leads to brief, temporary increases in distress followed by more substantial and longer-term psychological and physical benefits (Frattaroli, 2006; Smyth, 1998). Importantly, participants' written and oral expression of emotions during the vast majority of these experiments is purposefully not subjected to social feedback and thus does not fall under the umbrella of interpersonal disclosure that is the focus of the present work. Nevertheless, this research does attest to the vulnerability that accompanies disclosure (as evidenced by the short-term increase in distress when self-attention is focused on a trauma) as well as the power of the disclosure experience to impact longer-term psychological, emotional, and physical well-being.

Social Reactions to Disclosure. Research on *social reactions* to interpersonal disclosure is more directly relevant to the phenomenon of DINT that I am proposing in this dissertation. The interpersonal disclosure process inherently involves some form of feedback to the discloser (Figure 1 on page 22). The literature on social support typically emphasizes that the feedback that disclosers receive generally is supportive and fosters positive posttraumatic adjustment (Cohen & Willis, 1985; Flannery, 1990). A growing body of research, however, demonstrates that negative disclosure reactions are common, have a disproportionately potent effect compared to positive reactions, and independently predict maladaptive coping outcomes (Davis et al., 1991; Major et al., 1997; Ullman et al., 2007; Ullman & Filipas, 2001). It is important to emphasize that, throughout this dissertation and the accompanying research, the focus is on the discloser's subjective perception of the social response. Thus, whenever I refer to positive or negative social response, the reader should be aware that I am referring to perceived positive or negative social response.

My review of the literature indicates that Ullman's (2000) Social Reactions Questionnaire (SRQ) is the most commonly used measure of perceived social response in research examining the interpersonal disclosure of traumatic events. Factor analyses of the SRQ (Ullman, 1996b; Ullman, 2000) have indicated three subscales for positive reactions (emotional support, instrumental support, and information support) and five subscales for negative reactions (taking control of the victim's decisions, victim blame, treating the victim differently, distraction, and egocentric behavior). More recent work (Relyea & Ullman, 2015) has indicated that two broad categories of negative reactions are particularly influential: a) turning against and b) unsupportive acknowledgement. Turning against includes reactions such as blaming the victim and attempting to control the victim's decisions. Unsupportive acknowledgement includes

reactions in which the disclosee prioritizes their own needs above those of the victim and discourages the victim from continuing to discuss or process the traumatic event. Women who receive such negative reactions when disclosing experiences of sexual assault tend to suffer from greater posttraumatic stress (Bonnan-White et al., 2018; Littleton, 2010; Littleton & Radecki Breitkopf, 2006). In fact, even moderate levels of negative reaction during disclosure have been shown to predict depression in female survivors of sexual assault (Salim et al., 2022).

While there is a substantial amount of research on negative social reactions to disclosure, the theoretical and empirical emphasis has been on the tendency for these aversive reactions to disrupt the recovery process and to hamper the ability to repair damage caused by the originating traumatic event (e.g., Littleton, 2010; Orchowski et al., 2013; Peter-Hagene & Ullman, 2015; Salim et al., 2022,). The impact of responses to disclosure on the recovery process absolutely should be appreciated by researchers, theorists, and clinicians focusing on trauma. I also believe, however, that the literature does not adequately address the notion that these negative reactions to disclosure can, in themselves, be uniquely traumatizing and constitute novel and separable traumatic experiences with their own recovery trajectories.

Disclosure-Induced Neo-Trauma. In the aftermath of a distressing experience, the process of talking about that experience with others can be daunting for at least two broad reasons. First, disclosing the event to another person may cause the discloser to relive and re-experience the original traumatic experience, resulting in posttraumatic stress symptoms associated with the originating event (Danieli, 2010). Although this form of "retraumatization" is a distressing new experience as a result of disclosure, it does not constitute a new traumatic event. The memories, stimuli, and associations producing the posttraumatic stress symptoms all stem from the originating event and the post-processing of that event. The survivor is returning

back to the distress caused by the originating event: “Although the exposure may not be inherently traumatic but may only carry reminders of the original traumatic event or relationship, retraumatization typically refers to the reemergence of symptoms previously experienced as a result of the trauma” (Alexander, 2012, p. 191).

The fundamental purpose of this dissertation is to propose a second broad reason why interpersonal disclosure can be daunting for survivors of traumatic events. I contend that negative social reactions by the disclosee can in themselves be traumatizing for the discloser, particularly when the original traumatic event reflects a vulnerable issue and when the disclosee’s aversive reactions result in the disruption of an important attachment relationship. Under these conditions, the disclosure experience qualifies as a new traumatic event on its own accord. When the interpersonal disclosure process becomes a novel traumatic event in and of itself, this is a DINT. Making clear this delineation between symptoms stemming from the reliving of a previous traumatic experience, on one hand, and the generation via disclosure of traumatic stress linked directly and uniquely to that disclosure experience, on the other hand, is the primary contribution of this dissertation project. The concept of DINT that I am proposing here is a) a *disclosure-induced* phenomenon in that it is created as a result of the disclosure of a vulnerable issue to another person and b) a *neo-trauma* in that it is a new instance and new source of traumatic stress with symptoms that are distinguishable from any symptoms that are traceable to the vulnerable issue that was the initial subject of the disclosure. Thus, I am proposing a new psychological construct that is distinct conceptually from existing constructs in the trauma and stress and coping literatures.

I further propose that the experience of DINT is not aberrant but falls within the normal range of experience for survivors of traumatic events. On balance, survivors report more positive

than negative social responses when they disclose traumatic experience to others (Bonnan-White et al., 2018; Brewin et al., 2000; Ozer et al., 2003). However, negative reactions are quite common, and anywhere between 25% and 75% of trauma survivors report negative reactions from members of their support networks (Filipas & Ullman, 2001). Indeed, in one research study examining reactions to disclosure in a sample of sexual minority men, 100% of the participants reported at least one experience of being blamed for a past sexual assault when they disclosed the experience (Jackson et al., 2016). Another study found that female survivors of sexual assault commonly experienced negative reactions to disclosure and in consequence ceased sharing after that experience (Ahrens, 2006). A study with veterans ($N = 173$) disclosing trauma to their medical treatment providers, found that 45% of participants experienced at least one negative social reaction to their disclosure (Leibowitz et al., 2008). Although this past research has not conceptualized these negative social reactions as new traumas per se, I contend that in any reasonably large sample of trauma survivors there will be an ample number who have experienced what qualifies as a DINT.

Research Aims and Hypotheses

The research study detailed in Chapter Three (Methodology) presents a self-report measure of the proposed DINT construct and was designed to provide a preliminary assessment of the construct validity of this measure, including the examination of a hypothesized multiple mediation model (Figure 4).

Aim 1: Assess the construct validity of a new self-report measure of disclosure-induced neo-trauma (DINT), including subscales for *disclosure trauma* and *relationship disruption*. The *disclosure-trauma* subscale of the new DINTS measure was developed to assess the degree to which respondents believe that their disclosure of a previous distressing event

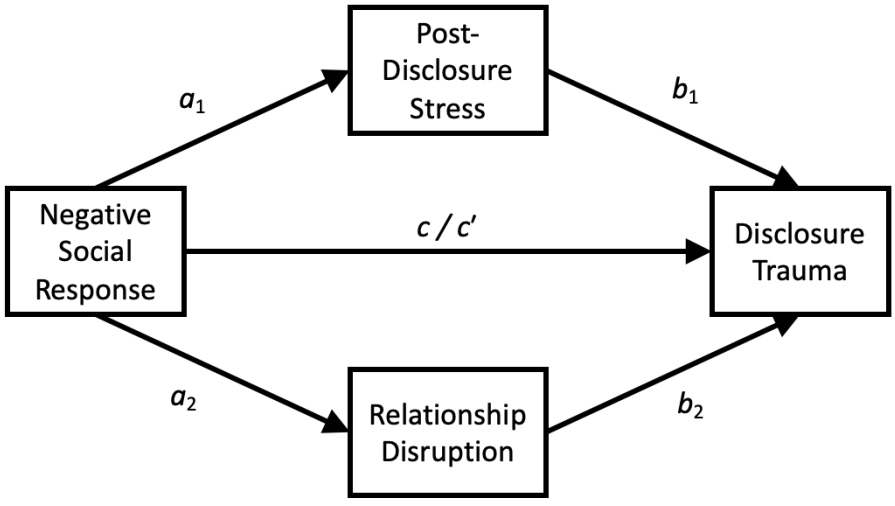
produces a novel traumatic event in and of itself (i.e., a DINT). The *relationship-disruption* subscale was developed to assess one of the key mechanisms by which an aversive disclosure experience may yield perceptions of disclosure trauma.

Aim 2: Test the proposed conceptual model that *disclosure trauma* results from aversive disclosure experiences in which perceived *negative social responses* by the disclosee a) yield high levels of traumatic stress related distinctly to the disclosure experience and b) negatively impact the relationship between the discloser and the disclosee (Figure 4).

Hypothesis 1: Participants were asked to report on a time in which a) they disclosed their worst distressing event to someone and b) the disclosure itself was a distressing experience. This prompting to report on a distressing disclosure experience was intended to tap into the DINT phenomenon, and I maintain that the DINT experience is not an uncommon one. Therefore, I predicted that at least 10% of respondents would strongly agree on the disclosure-trauma subscale that their disclosure experience was traumatic.

Hypotheses 2-8 reflect the components of the conceptual mediation model (Figure 4).

Figure 4. *Conceptual Mediation Model*



Hypothesis 2: Perceived *negative social responses* lead the discloser to experience the disclosure as a unique and traumatic event (i.e., *disclosure trauma*) (path *c*). *Positive social responses* have less impact on disclosure trauma.

Hypothesis 3: N*egative social responses* create higher levels of traumatic stress due to the disclosure (i.e., *post-disclosure stress*) (path a_1). *Positive social responses* have less impact on post-disclosure stress.

Hypothesis 4: *Negative social responses* also have an adverse effect on the relationship between the discloser and the disclosee (i.e., *relationship disruption*) (path a_2). *Positive social responses* have less impact on relationship disruption.

Hypothesis 5: The degree to which the disclosure creates traumatic stress (i.e., *post-disclosure stress*) predicts disclosure trauma, with higher levels of post-disclosure stress yielding higher levels of disclosure trauma (path b_1).

Hypothesis 6: The degree to which the disclosure has an adverse effect on the relationship between the discloser and the disclosee (i.e., *relationship disruption*) predicts disclosure trauma, with higher levels of relationship disruption yielding higher levels of disclosure trauma (path b_2).

Hypothesis 7: Post-disclosure stress mediates the H2 association between negative social response and disclosure trauma (indirect path a_1b_1), reducing the magnitude of path *c*.

Hypothesis 8: Relationship disruption independently mediates the H2 association between negative social response and disclosure trauma (indirect path a_2b_2), further reducing the magnitude of path *c*.

Hypothesis 9: The associations predicted in H2-H8 are independent of any association between disclosure trauma and the following covariates: *post-traumatic stress* associated with the originating event, general *depression* symptoms, and general *anxiety* symptoms.

Summary

This research has two interrelated purposes: a) to identify the disclosure experience as holding potential to be a traumatic experience for some persons, and b) to validate a measure of perceived trauma due to disclosure. The DINT phenomenon proposed is important conceptually and theoretically. Furthermore, it holds vast clinical implications for understanding the paradigm shift around benefits and risks to disclosing and the potential need for intervention to prevent DINTs from occurring. These issues will be discussed in the later clinical implications section.

Chapter Three: Methodology

I created an online questionnaire in which respondents identified a previous stressful event and described an experience disclosing this event to another person. The questionnaire contained assessments of the originating stressful event (e.g., a brief narrative of the event and the degree of traumatic stress associated with that event) and the disclosure experience (e.g., a brief narrative of that experience, the respondent's perceptions of the social response, and the degree of traumatic stress and relationship disruption associated with the disclosure). A targeted set of accompanying measures of depression, anxiety, and general disclosure tendencies were included. The overarching goal was to document the experience of disclosure-induced neo-trauma (DINT) and to understand more about its phenomenology, the "upstream" factors that give rise to it, and the "downstream" factors that flow from it.

Participants

All aspects of this research were approved by the Syracuse University Office for Research Integrity and Protections (ORIP). Participants ($N = 167$) were volunteers who agreed to complete an online survey. The informed consent document indicated that the survey was focused on "learning about the experiences that people have when they share with others about distressing events in their lives." A fundamental purpose of this research was to pilot test a self-report measure of DINTS that will have general and broad applicability; therefore, there were no pre-determined criteria regarding the demographic background or trauma histories of participants. However, for ethical reasons the sample was restricted to persons aged 18 or older. And, for practical reasons the sample was restricted to persons who are fluent in English and residing in the US.

Participants were recruited through a variety of sources. Undergraduate and graduate students were invited to participate by faculty within the Public Health Department and the Marriage and Family Therapy Department at Syracuse University and from the Psychology Department at SUNY-Oswego. In recruiting student participants, it was made clear that faculty would have no knowledge whether a student chose to participate, and that participation would not affect class grades or provide extra credit. Other participants were recruited via snowball sampling by asking colleagues, friends, and family members to distribute the survey description and web link to persons they knew who may be interested in completing the survey. These persons, in turn, were asked to forward the description to others who may be interested. As with the student-recruitment protocol, participation was voluntary and anonymous, and there was no incentive for completing the survey.

When it became clear that the above recruitment strategies likely would fail to yield an adequate sample size in sufficient time, a raffle opportunity was added as an incentive. Potential participants were contacted in the same manner as described above but were also told that they would have the option to be entered into a raffle to win one of three gift cards. If they wished to be included in the raffle, participants who completed the survey provided contact information in a separate survey that could not be linked to their earlier survey responses.

Procedure

All potential participants were provided with an electronic informed consent document, which included an overview of the study (Appendix A). If they elected to proceed, they progressed to the online survey. The survey included measures addressing trauma history, posttraumatic stress, disclosure experiences, and depression and anxiety symptoms. Some of these are established measures, while others were created specifically for purposes of this

research. Each of these measures is described in detail below and included in Appendix B. The online software Qualtrics (www.qualtrics.com) used to administer the survey recorded the amount of time that participants took to complete the full set of measures, which was 25 min on average. After completing the measures, participants were provided with a written debriefing (Appendix C). The debriefing further explained the goals of the study and the contribution that participants' experiences would have on facilitating safer disclosure experiences in future therapeutic contexts. Participants also were provided contact information for therapeutic resources in their communities if completing the study elicited strong negative and emotional reactions.

Survey Measures

The measures described below were computer-administered via Qualtrics, which is a commonly used online program for generating experiments and surveys. The online platform allows control and randomization of the ordering of measures across participants, which helps to offset methodological confounds, such as order effects, carryover effects, and survey fatigue. I provide further details about the structure of the survey after identifying and describing each of the component measures.

Background Information. Participants first completed a background information form containing items related to age, gender, race/ethnicity, current relationship status, student/occupational status, and current geographical location (Appendix B.1).

PTSD Checklist (PCL-5) for DSM-5 with Criterion A. The PCL-5 with Criterion A (Weathers et al., 2013a) was used to identify a past, distressing event for each participant and to assess the current level of PTSD symptomology related to that event (Appendix B.2). The PCL-5 is a commonly used self-report measure of PTSD symptomology that is based on the qualifying

event and symptom criteria for a diagnosis of PTSD in the Fifth Edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5: APA, 2013). The Criterion A component of the PCL-5 asks respondents first to identify a specific distressing event from the past that is their "worst event" and that "currently bothers you the most." Respondents were given the option of writing in a brief description of the distressing event if they were comfortable doing so. After identifying the worst event, respondents rated the degree to which this distressing event affected them in terms of 20 specific "problems" reflecting the four DSM-5 symptom clusters for PTSD (Re-experiencing, Avoidance, Negative thinking and mood, and Hyperarousal). Respondents indicated using a 5-point Likert scale ranging from 0 (*Not at all) to* 4 (*Extremely*) their subjective sense of being "bothered by" each of the 20 problems in the past month (e. g., Re-experiencing: "Repeated, disturbing, and unwanted memories of the stressful experience"; Avoidance: "Avoiding memories, thoughts, or feelings related to the stressful experience"; Negative thinking and mood: "Having strong negative feelings such as fear, horror, anger, guilt, or shame"; Hyperarousal: "Being 'superalert' or watchful or on guard"). In the current study, the sum of these 20 items was used to index PTSD symptoms related to the originating stressful event.

The PCL-5 has high reliability and construct validity with a Cronbach's $\alpha = .94$ (Blevins et al., 2015; Bovin et al., 2016), and provides provisional diagnostic information pertinent to PTSD symptoms that have manifested in the past month, relative to the worst distressing event(s) previously experienced (e.g., Galovski et al., 2020; Resick et al., 2017).

Identifying the Disclosure Experience (IDE). The IDE was developed for purposes of this research to identify a specific time in which: a) a participant disclosed the worst distressing event to someone and b) the disclosure itself was a distressing experience. Participants first were asked whether they had disclosed the event to anyone (outside of the current research context). If

so, they were asked whether any of these disclosure experiences were particularly distressing because of the response of the person to whom they disclosed. All participants who had disclosed the event were asked to provide a brief description of one of their disclosure experiences. If they had difficult disclosure experiences, they were asked to select the one that was most distressing. If they had no difficult disclosure experiences, they were asked to select one of their non-distressing disclosures. Participants also were asked to identify the nature of their relationship with the person to whom they disclosed (e.g., friend, family member, stranger, etc.), the length and closeness of the relationship, their own age at the time of the disclosure, and the duration between the originating distressing event and this particular disclosure. Finally, participants were asked two questions to indicate the impact of this disclosure experience on the subjective closeness of the relationship with the person to whom they disclosed (Appendix B.3).

Participants who indicated that they had not disclosed the distressing event to anyone were asked an open-ended question about why they had not disclosed the event. They also were asked the degree to which they were afraid that each of 12 negative outcomes might occur if they told someone about the event (e.g., "they will think less of me" and "it will be embarrassing") using a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). These participants were then advanced past the measures that focus on the disclosure experience and asked to respond to the general measures of depression, anxiety, and disclosure tendencies that are described below.

PTSD Checklist for Disclosure (PCL-D). The PCL-D is a modified version of the PCL-5 created specifically for this research study. The Criterion A (qualifying event) component of the PCL-5 was eliminated, and the instructions and items were reworded to refer specifically to the disclosure experience identified earlier in the IDE (e. g., "Repeated, disturbing, and unwanted

memories of the disclosure experience"). For exploratory purposes, an additional item was added that asked participants to provide and rate "any other issue related to the disclosure experience that you would like to describe." The 20 items from the PCL-D (Appendix B.4) were summed to provide a measure of *disclosure stress* on a scale comparable to the PCL-5 scale that was used to measure posttraumatic stress resulting from the originating distressing event.

Social Reactions Questionnaire (SRQ). The SRQ (Ullman, 2000) was used to assess the perceived quality of social response during the specific disclosure experience identified by each participant in the IDE. The 46-item SRQ originally was developed to assess the frequency with which victims of sexual assault received a range of positive and negative social reactions when they disclosed to others (Ullman, 1996a). Factor analyses of the SRQ (Ullman, 1996b; Ullman, 2000) have indicated three subscales for positive reactions (emotional support, instrumental support, and information support) and five subscales for negative reactions (taking control of the victim's decisions, victim blame, treating the victim differently, distraction, and egocentric behavior). Some example items include "told you it was not your fault," "believed your account of what happened," "distracted you with other things," "made decisions or did things for you," "minimized the importance or seriousness of your experience," and "provided information and discussed options." Of these eight factors, it was found that seven of the subscales exhibited strong internal consistency and reliability. These factors include emotional support ($\alpha = .93$), treat differently ($\alpha = .86$), distraction ($\alpha = .80$), taking control ($\alpha = .83$), tangible aid ($\alpha = .84$), victim blame ($\alpha = .80$), and egocentrism ($\alpha = .77$) and the Cronbach's alphas for each are reflective of the high internal consistency of each item set (Ullman, 2000). A recent review and meta-analysis indicated that the negative social reactions indexed by the SRQ are consistent

predictors of poor psychological outcomes, whereas the positive social reactions do not show a consistent buffering or protective effect (Dworkin et al., 2019).

In the present research, participants were asked to rate the degree to which the person to whom they disclosed their worst distressing event had each of the 46 SRQ reactions during the specific disclosure identified in the IDE using a 5-point Likert scale ranging from 1 (*Not at All*) to 5 (*Extremely*). For ease of presentation, a total *negative social response* score was computed by averaging the 26 negative reactions items, and a total *positive social response* score was computed by averaging the 20 positive items (Appendix B.5).

Disclosure-Induced Neo-Trauma Scale (DINTS). This questionnaire was created specifically for purposes of this research in order to ask participants directly the degree to which they perceive a particular disclosure experience, in and of itself, to be a traumatic event (disclosure trauma). The DINTS scale also assesses the degree to which a particular disclosure affected the quality of the relationship between the participant and the person to whom they disclosed (relationship disruption). Six items assess *disclosure trauma* using a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). For example, participants rate the degree to which the disclosure experience "was a traumatic event," "caused me to feel so helpless and overwhelmed that it stands out as a unique and distressing event in my life," and "resulting in significant physical stress symptoms not directly related to the original stressful event."

Five additional items assess *relationship disruption* using the same 5-point response scale. Example items include "I regret disclosing because it caused pain and ruptured the relationship," "The relationship was never the same after the disclosure," and "A lot of trust was lost during and after the disclosure."

In order to more fully capture the impact of the disclosure on participants, they were asked to write a brief impact statement: "Please describe the impact that this disclosure experience has had on you and your relationships (including the person to whom you disclosed). In writing your statement, consider the effects this disclosure experience has had on your beliefs about yourself, others, and the world in the following area: safety, trust, power/control, esteem, and intimacy." These instructions are patterned in part on the impact statements used in Cognitive Processing Therapy (Resick et al., 2017). Participants' impact statements are intended to be used for qualitative analyses, content coding, and future refinement of the DINTS scale (Appendix B.6).

Distress Disclosure Index (DDI). The DDI (Appendix B.7) assesses a person's general tendency to conceal versus disclose stressful experiences and negative emotions (Kahn & Hessling, 2001). The DDI is a 12-item measure in which respondents rate six positively worded items (e.g., "I usually seek out someone to talk to when I am in a bad mood") and six negatively worded items (e.g., "When I'm distressed I don't tell anyone") on a 5-point Likert-type scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The Cronbach's alpha for the 12-item scale is reported to be $\alpha = .93$, which shows strong internal reliability.

Beck Depression Inventory (BDI). The BDI (Beck, 1967) assesses the intensity of depressive symptoms and has been the most widely used self-report measure of depression for several decades (e.g., Shaver & Brennan, 1991). The 21 items of the BDI were created to tap the symptom-attitude categories that Beck (1967) identified in his classic book on clinical depression. The response scale has been revised somewhat since the original publication of the BDI (Beckham & Leper, 1985), and this more commonly used version will be used in the current research (Appendix B.8). The BDI was included to assess the convergent and discriminant

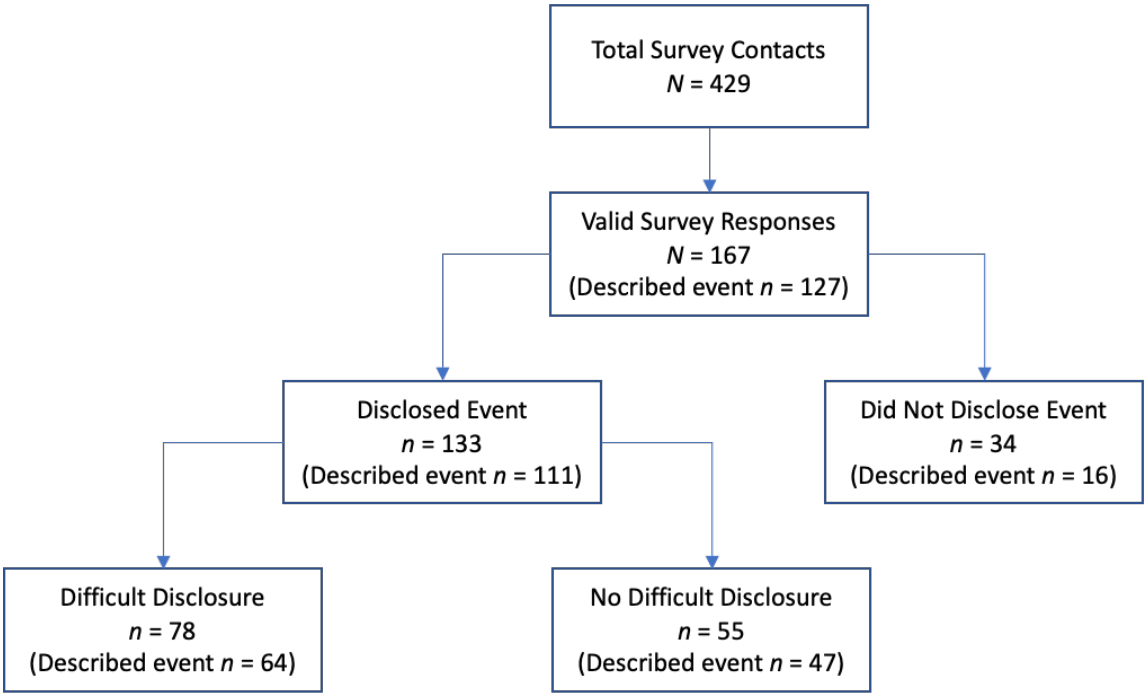
validity of the DINTS scale and as a statistical covariate when assessing various hypotheses throughout the present research.

Beck Anxiety Inventory (BAI). The BAI (Beck et al., 1988) measures the severity of anxiety symptoms based on 21 items (Appendix B.9). The BAI tends to be moderately correlated with the BDI. The BAI was included to assess the convergent and discriminant validity of the DINTS scale and as a statistical covariate when assessing various hypotheses throughout the present research.

Structure of Survey

The survey first provided the informed consent and, if accepted by the participant, progressed to the set of measures. The measures were placed into three blocks (A, B, and C) that were administered in that order. For all participants, Block A consisted of the PCL-5 followed by the IDE. These two measures were used to identify the originating distressing/traumatic event for each participant (PCL-5) and the corresponding disclosure experience (IDE) that was to be the focus of several of the subsequent measures. Block B consisted of the PCL-D, SRQ, and DINTS measures. These measures assessed the perceived quality and impact of the disclosure experience, and their order of administration was randomized across participants. Finally, Block C consisted of the DDI, BDI, and BAI. These three measures largely were intended to serve in the construct-validation phase of the data analyses. They also were used as statistical controls in several of the analyses. The order of these three measures was counterbalanced, such that some participants received the DDI followed by the BDI and BAI, whereas others received the BDI and BAI followed by the DDI. The order of the BDI and BAI was randomized across participants.

Figure 5. *Flowchart of Sample Sizes*



Effective Sample Size

Figure 5 displays the effective sample size as a function of several critical aspects of the data-collection process and the response patterns of the persons who opened the survey on Qualtrics. In total, the survey was opened 429 times. Several of these were test runs by myself or other people I asked to look over the survey. There also were quite a few times in which the survey was opened but very few or no questions were answered. In addition, there were some responses that were identified as "bots" by Qualtrics, some responses in Chinese, some offensive responses, and some irrelevant responses containing gibberish. I filtered out these invalid responses to reach an effective sample size of 167 valid survey respondents in which the respondent rated a previous distressing event using the PCL-5 and indicated whether they had disclosed this event to another person using the IDE. Of these, 133 indicated that they had disclosed the event to at least one other person, while 34 indicated that they had never disclosed

the event to anyone. Of those who had disclosed the event, 78 respondents indicated that they had at least one difficult disclosure of the event, while the remaining 55 respondents indicated that none of their disclosures of this event had been difficult. In the end, for the primary data analyses, there are two pertinent sample sizes. The larger effective sample size of 167 represents the total number of respondents who legitimately completed the survey and identified a distressing event. However, the subset of these respondents (n = 133) who reported that they disclosed this event to another person represents the sample upon which most of the analyses are based. The remaining 34 participants who never disclosed the event represent an interesting subsample, and I describe supplemental analyses focusing on this subsample.

Sample Characteristics

Given the topic of this research project, it was desirable to reach respondents from a fairly broad population with a wider set of life experiences than the "typical" undergraduate student. Table 1 provides information on the self-reported background characteristics of the sample. There was a reasonable balance in terms of gender, with approximately two-thirds identifying as female and one-third as male. The age range was wide (19 to 84), with an average age of 35 years. Over half of the participants were White, and over one-third identified with a different race or ethnicity. The majority had received a college degree, were employed, and were married or engaged; but there was considerable variability within each of these demographic domains. Finally, approximately one-third of the participants were Christian, and the rest identified with another religion or had no religious affiliation.

Trauma Taxonomies

Responses to the PCL-5 provided several bases for categorizing the stressful events that respondents reported into different trauma taxonomies. First, participants indicated whether the

event met DSM-5 Criterion A as a "qualifying event" for a PTSD diagnosis ("Did it involve actual or threatened death, serious injury, or sexual violence?"). Second, participants indicated whether the event occurred to them personally ("It happened to me directly"). Third, participants who reported on the death of a close friend or family member were asked to indicate whether the death was the result of "accident or violence" or "due to natural causes."

Participants also were asked to describe "briefly the stressful event you have chosen (if you feel comfortable doing so)." As shown in Figure 5, 127 of the 167 participants (76%) provided a brief description of the stressful event. These descriptions were coded independently by two judges (myself and another person with a doctorate in Psychology). The judges assessed whether each description referred to an event that was a) sexual or non-sexual and b) interpersonal or non-interpersonal. For the sexual vs. non-sexual code, the judges determined whether the description referred to a) a sexual incident that involved the participant, b) a sexual incident that involved someone else, or c) a non-sexual incident. There was near perfect agreement in these codes (99.21%; Cohen's $\kappa = .97$), and the sole discrepancy was resolved through discussion. The judges were instructed to code an event as interpersonal if it described an attachment disruption or an interpersonal behavior of any kind, otherwise it was to be coded as non-interpersonal. Again, agreement was very high (94.49%; Cohen's $\kappa = .85$), and the 7 disagreements out of 127 descriptions were resolved through discussion.

The frequencies for these five trauma taxonomies are displayed in Table 2. The majority of participants identified a stressful event that met the DSM-5 criteria to be a qualifying event for a potential PTSD diagnosis (64%), happened to them directly (58%), and was non-sexual (85%), but interpersonal (74%) in nature. In addition, a large percentage (41%) identified a stressful event that involved the death of a close friend or relative.

Chapter Four: Results

Data Analysis Plan

A list of the key variables that resulted from this research is shown in Table 3. The reader may wish to consult this table while reading through the following analysis plan. The data analytic approach had three phases and was designed to test the hypotheses specified at the end of Chapter Two (Literature Review). Phase 1 focused specifically on Hypothesis 1 (i.e., the prevalence of the DINT phenomenon in the sample) and the factor structure, internal consistency, and distributional properties of the *disclosure-trauma* scale from the DINTS measure. Phase 2 focused on the construct validity of the disclosure-trauma scale based on its pattern of associations (group differences and correlations) with other variables in the data set (including those specified in Hypotheses 2-6). Phase 3 focused on the predicted pattern of mediation shown in Figure 4 on page 59 (Hypotheses 7 and 8). All analyses were re-conducted while controlling for post-traumatic stress, depression, and anxiety symptoms (Hypothesis 9). In addition, supplementary analyses examined a) a moderation analysis involving a statistical interaction between negative social response and post-traumatic stress predicting disclosure trauma, b) a mediation analysis focusing on the indirect effects of positive social response on disclosure trauma, and c) the characteristics of those respondents who reported that they had never disclosed the distressing event to anyone – the non-disclosers.

Phase 1: Disclosure-Induced Neo-Trauma

Hypothesis 1, admittedly, was more of a speculation than a formal hypothesis. I predicted that "at least 10% of respondents would strongly agree on the disclosure-trauma subscale that their disclosure experience was traumatic." The first item on the disclosure-trauma subscale ("The disclosure experience, in and of itself, was a traumatic event.") explicitly addresses this

prediction. Table 4 displays the frequency distribution for this item. Across all participants who completed the DINTS measure, 15.4% strongly agreed that their disclosure experience was a traumatic event for them. Moreover, almost half (45.3%) indicated that they agreed at least "somewhat" that their disclosure experience was traumatic. It is important to note that this sample was essentially a convenience sample, and the participants were not recruited based on trauma history or any other factor that would seem to predispose them to having troubling disclosure experiences. Thus, Hypothesis 1 was supported, and it appears that the DINT experience is not especially rare, nor is it restricted to clinical populations. I return to this issue in Chapter Five (General Discussion).

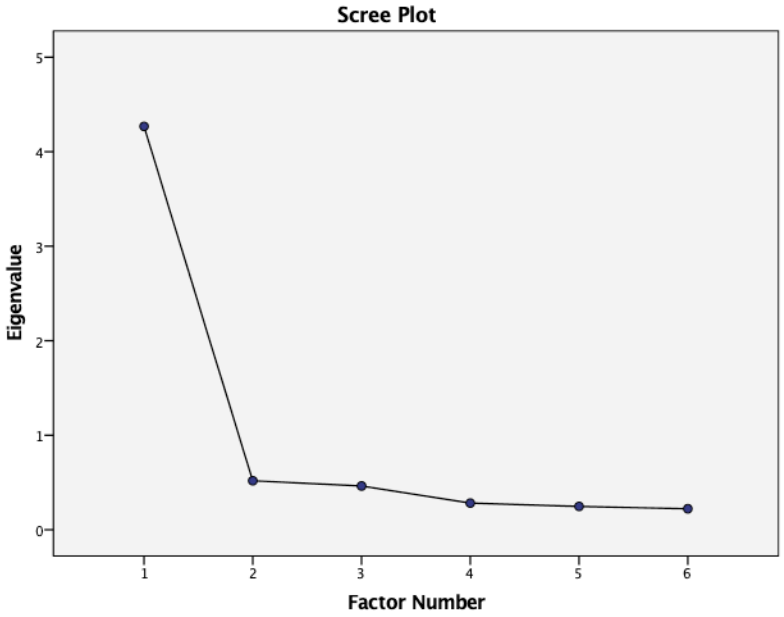
Although the first item of the disclosure-trauma scale is the only one to refer explicitly to the disclosure experience as a traumatic event, I phrased the other five items to reflect the broader psychological construct of interest; namely, that the disclosure experience represented a stressor that was distinct from the originating event. The next step of the analysis was to examine whether all six items reflect a common construct. Table 5 provides descriptive statistics for each of the disclosure-trauma items. The average response for each item fell between 2.03 and 3.03 on the 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) Likert scale, with all response options for each item being selected by participants. There was no evidence of considerable skewness for any of the items. This initial check of the distributions of the items indicated that it was appropriate to progress to the next step, a factor analysis.

I phrased the items with the intention that each would reflect individual variation in the psychological construct of DINT that I am proposing. Thus, the goal was to create a unidimensional, or one factor, scale. Given that a one-factor solution was predicted I conducted a

factor analysis with maximum likelihood estimates to test this assumption.[1] With a fairly small number of variables (such as the six in the present analysis) the maximum-likelihood technique is robust to departures from normality (Fuller & Hemmerle, 1966). As shown in Figure 6 and Tables 6 and 7, the associations among the six items were well-represented by a one-factor solution. The scree plot in Figure 6 clearly demonstrates that the first eigenvalue stood out from the remaining. Indeed, as displayed in Table 6, the first eigenvalue of 4.17 accounted for nearly 70% of the covariance among this set of six items. None of the other eigenvalues approached the commonly applied threshold of 1.0 or exceeded 10% of the explained variance. The loadings for the items on this single factor all were very strong, above .70 (Table 7).

A test of the internal consistency of the six items yielded a high Cronbach's alpha value ($\alpha = .91$) and removing any of the items would only serve to reduce that value (Table 7).

Figure 6. Plot of Eigenvalues from the Factor Analysis of the Disclosure-Trauma Scale



Note. Scree plot of eigenvalues from factor analysis of the six items from the disclosure-trauma scale, based on maximum likelihood estimates ($N = 115$)

[1] This approach is regarded as a confirmatory factor analytic technique (Gorsuch, 1983). An alternative confirmatory strategy based on fitting latent variable models (e.g., Kline, 2005) was initially considered, but the unidimensional pattern was so evident in these data, that this alternative was not pursued.

Taken together, these analyses suggest that participants' responses to this set of items are influenced by a single underlying dimension or construct and that it is appropriate to combine them into one scale. Therefore, I created a disclosure-trauma score for each participant by averaging their responses to these six items. The distribution of these scores is shown as a boxplot (Figure 7) and frequency histogram (Figure 8, Panel A). There was a large cluster of scores near the low end of the response scale, likely representing participants who were unable to think of a difficult disclosure experience. Indeed, when these participants (n = 52) were filtered out, the distribution of the disclosure-trauma scale no longer had this spike at the low point and more closely approximated a normal distribution (Figure 8, Panel B).

Figure 7. *Box Plot for the Disclosure-Trauma Scale (N = 117)*

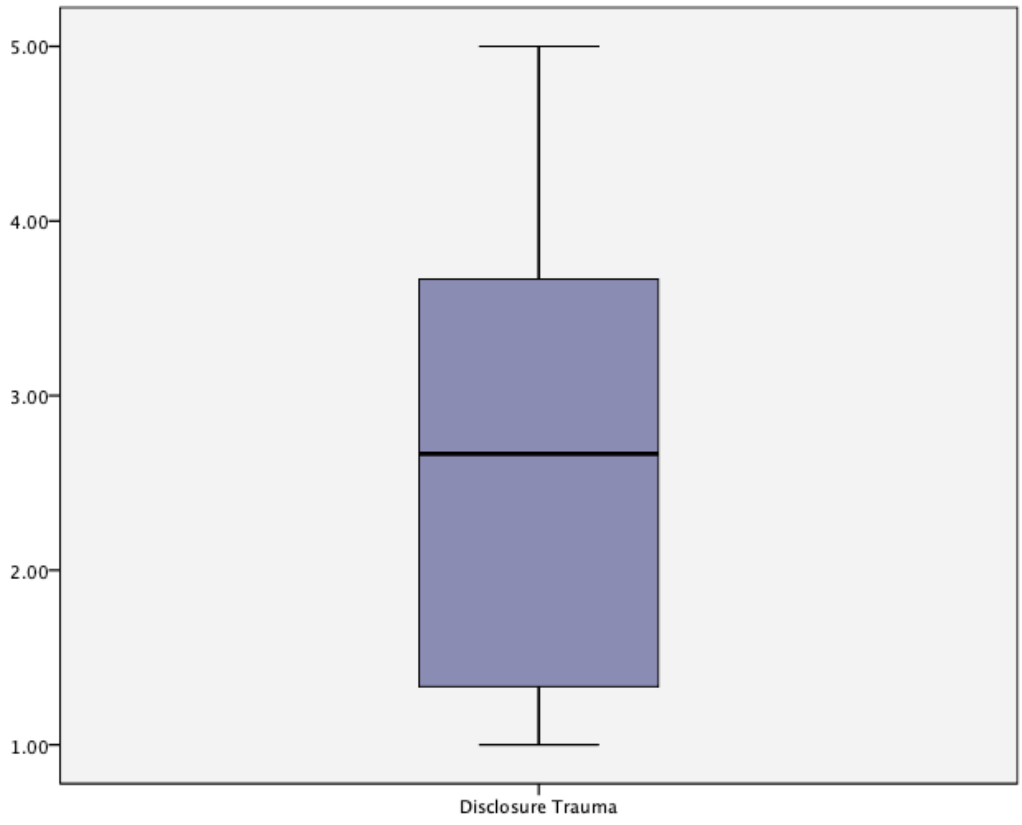
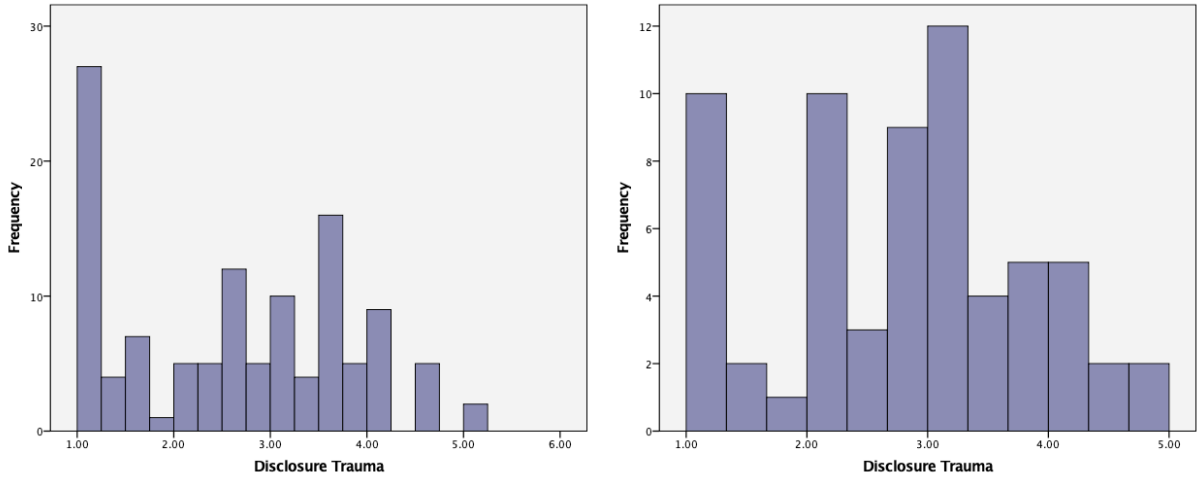


Figure 8. *Frequency Histograms for the Disclosure-Trauma Scale*



Panel A.
All participants ($N = 117$)

Panel B.
Difficult disclosure participants ($N = 65$)

Table 8 displays the basic descriptive statistics for the disclosure trauma scale for the overall sample and for several subgroupings. There were no dramatic differences in mean levels of disclosure trauma across these subgroupings. There were two marginal effects. Participants who reported that their distressing event met the DSM-5 criteria for a qualifying event for a potential PTSD diagnosis (i.e., "actual or threatened death, serious injury, or sexual violence") tended to view their disclosures as more traumatic. And participants who reported a non-interpersonal trauma also tended to regard their disclosures as more traumatic. Again, these two patterns were not statistically significant and none of the other differences in mean levels of disclosure trauma approached significance.

In summary, Phase 1 of the data analyses addressed two important issues. First, it provided empirical support for Hypothesis 1, in which I predicted that there would be a non-trivial number of respondents (at least 10%) who regarded their disclosure experience as traumatic. In this sample, 15.4% strongly agreed that their disclosure experience had been traumatic, and an additional 29.9% somewhat agreed. Second, it provided psychometric support

for computing a disclosure-trauma scale from the six items I created to reflect the degree to which a person regards their disclosure as having been traumatizing, ranging from not-at-all traumatic to traumatic.

Phase 2: Construct Validity of the Disclosure-Trauma Scale

The goal of Phase 2 of the analyses was to provide support for the construct validity of the new six-item disclosure-trauma scale by examining its pattern of correlation with other scales in the survey that differ in their degree of conceptual overlap (Messick, 1989). This also allowed for the examination of the correlations specified in Hypotheses 2-6. Before initiating this phase of the analyses, it was necessary to examine the psychometric properties of these other scales.

Psychometric Properties of Scales used for Construct Validity

The descriptive statistics and internal consistency estimates for these scales are shown in Table 9. Each scale had high internal consistency and none of their distributions contained any outliers. It is notable that the average level of post-traumatic stress symptoms on the PCL-5 in this sample was slightly above 31 (M = 31.03), which is sometimes used as a lower-level clinical cutoff for PTSD diagnosis (Weathers et al., 2013a). I will return to this issue at several points in Chapter Five (General Discussion). For the time being, the fact that respondents in this sample were experiencing a wide range of post-traumatic stress due to the originating event suggests that many of them were reporting on an event that had significant influence in their lives. Levels of traumatic stress post-disclosure on the PCL-D were not as high on average (M = 17.33), but there was a similar range of traumatic stress symptomology (0 to 61), again suggesting that this disclosure-focused scale was tapping into a meaningful life experience for many participants. The mean level of general anxiety symptomology on the BAI also was fairly high at 21.19, and only slightly less than the 22.35 average for the sample that was used in the final phase of the

development of the BAI. That sample was recruited from outpatients from a psychiatric clinic in Philadelphia in the late 1980s (Beck et al., 1988). The distributions of the other key variables and covariates indicated that none of their average scale scores was extreme and that the participants used the full range of possible responses for each scale.

Convergent and Discriminant Correlations

The correlations between the disclosure-trauma scale and the other key variables are displayed in Table 10.[2] The discloser's perception of the social response during the disclosure was predicted to influence the perception of disclosure trauma (Hypothesis 2). Indeed, perceived negative social response was highly correlated with disclosure trauma $r(113) = .57$, $p < .001$, such that higher levels of perceived negative response (taking control of the victim's decisions, victim blame, treating the victim differently, and distraction) corresponded with a greater tendency to perceive the disclosure as traumatic. Also consistent with Hypothesis 2, perceived positive social response (instrumental, emotional, and informational support) was not correlated with disclosure trauma $r(113) = .01$. The overall pattern of correlations involving positive social response is intriguing (viz., a positive correlation with post-disclosure stress and a negative correlation with relationship disruption). Toward the end of this chapter, I dedicate a supplemental analysis to the exploration of these patterns.

Hypotheses 3 and 4 were supported based on the correlations between negative social response and post-disclosure stress, $r(113) = .81$, $p < .001$, and between negative social response and relationship disruption $r(113) = .77$, $p < .001$. Although these two correlations do not directly attest to the construct validity of the disclosure-trauma scale, they are important components of the mediation model to be examined in Phase 3 of the analyses.

[2] Listwise deletion was used when computing the correlations within each of the tables in order to match the subsamples upon which subsequent multiple regression and mediation analyses were based.

In support of Hypothesis 5, the disclosure-trauma scale was positively correlated with post-disclosure stress, $r(113) = .60$, $p < .001$. If the disclosure experience generated a high degree of stress and PTSD-oriented symptoms, then participants had a greater tendency to perceive the disclosure experience as traumatic. In support of Hypothesis 6, the disclosure-trauma scale also was positively correlated with relationship disruption, $r(113) = .57$, $p < .001$. The more the disclosure experience had an adverse effect on the relationship between the discloser and the disclosee, the more that experience was regarded as traumatic by the discloser.

The above pattern of correlations supports five of the primary hypotheses (H2-H6) and attests to the construct validity of the new disclosure-trauma scale. Additional scales in the data set provided more information about the construct validity of this scale by demonstrating discriminant validity (see Hypothesis 9). As shown in Table 10, disclosure trauma was correlated positively with post-traumatic stress due to the originating event, $r(113) = .37$, $p < .001$. However, when disclosure trauma was regressed onto both post-traumatic stress due to the originating event (PCL-5) and post-disclosure stress (PCL-D), only post-disclosure stress remained a significant predictor (Table 11). Therefore, disclosure trauma was specifically related to traumatic stress due to the disclosure, rather than to stress stemming from the originating stressful event.

General depression and anxiety symptoms also were correlated positively with disclosure trauma (Table 12). This makes sense, as experiencing a traumatic disclosure understandably would result in general feelings and symptoms of depression and anxiety. However, the symptoms associated directly with the disclosure (post-disclosure stress) should be more proximal predictors of perceiving that disclosure as traumatic, compared to more global symptoms of depression and anxiety. Consistent with this hypothesis, when disclosure trauma

was regressed simultaneously onto post-disclosure stress (PCL-D) and the depression (BDI) and anxiety (BAI) scales, only post-disclosure stress remained a significant predictor (Table 13). Again, disclosure trauma was specifically related to traumatic stress resulting from the disclosure, rather than to more global symptoms of anxiety and depression.

Finally, disclosure trauma was not significantly associated with the general tendency to disclose distressing events to others (Table 12). Nevertheless, higher post-disclosure stress, relationship disruption, and negative social responses were correlated negatively with general distress disclosure (Table 12). Experiencing traumatic stress symptoms, suffering harm to one's relationship, and perceiving negative reactions due to a specific disclosure all predict a greater reluctance to disclose distressing events to others more generally.

All in all, the above pattern of convergent and discriminant correlations provides solid initial support for the construct validity of the new disclosure-trauma scale and with Hypotheses 2-6 and Hypothesis 9 presented at the end of Chapter Two. Perceiving a disclosure experience as traumatic was associated with a) perceiving a more negative social response by the disclosee, b) greater disruption to the relationship with that disclosee, and c) greater PTSD-oriented symptoms surrounding the disclosure experience. These associations were independent of traumatic stress symptoms related to the originating event and from more general depression and anxiety symptoms.

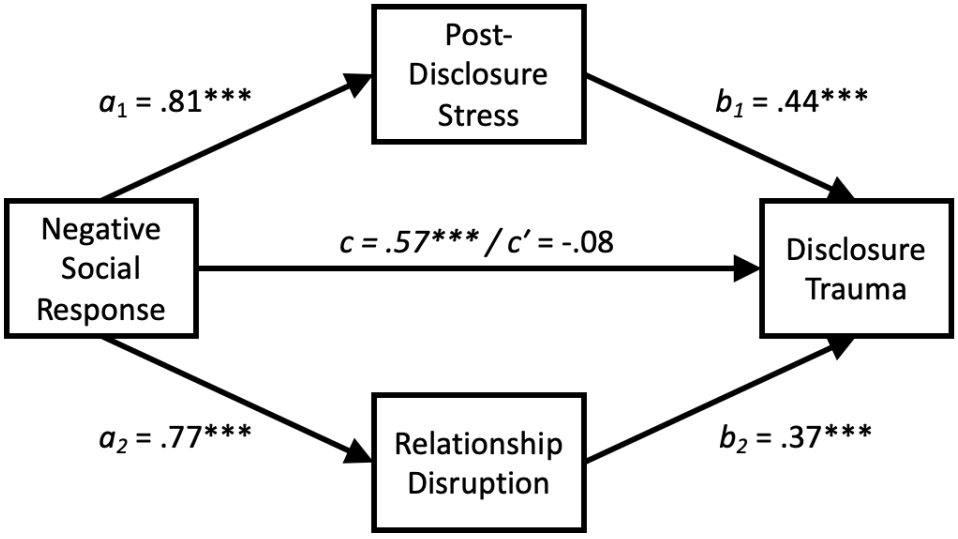
Phase 3: Parallel Multiple Mediation Model

The third phase of the analyses focused on better understanding the nature of the relationships among the predictors of disclosure trauma that were identified in the patterns of correlations observed in Phase 2. I hypothesized a path model in which the impact of negative social responses on disclosure trauma (path *c*) is mediated independently by post-disclosure

stress and relationship disruption (Hypothesis 7 and 8; Figure 4 on page 59). In other words, negative social reactions during a disclosure cause traumatic stress (path a_1) and adversely affect the relationship between the discloser and disclosee (path a_2). Post-disclosure stress (path b_1) and relationship disruption (path b_2) each then independently contribute to the perception of the disclosure experience as traumatic.

A parallel multiple mediation analysis using ordinary least squares path analysis and the PROCESS macro (version 4.2 beta; Hayes, 2022) was used to test this hypothesized pattern. As shown in Figure 9 and Table 14, perceived negative social response to the disclosure predicted higher post-disclosure stress ($a_1 = .81$, $p < .001$). Higher post-disclosure stress, in turn, predicted a greater tendency to perceive the disclosure as traumatic ($b_1 = .44$, $p < .001$). A bias-corrected 95% confidence interval for the indirect effect ($a_1b_1 = .36$) based on 10,000 bootstrap samples did not include 0 (.1203 to .5895), supporting the corresponding mediation hypothesis (Hypothesis 7).

Figure 9. *Multiple Parallel Mediation Model for Negative Social Responses*



Note. This mediation model was tested using the PROCESS macro (version 4.2 beta: Hayes, 2022). The association between perceived negative social response and disclosure trauma was mediated by post-disclosure stress ($a_1b_1 = .36$***) and relationship disruption ($a_2b_2 = .29$***).

In the same analysis (Figure 9 and Table 14), perceived negative social response to the disclosure also predicted greater relationship disruption ($a_2 = .77$, $p < .001$), and greater relationship disruption, in turn, predicted a greater tendency to perceive the disclosure as traumatic ($b_2 = .37$, $p < .001$). A bias-corrected 95% confidence interval for this indirect effect ($a_2b_2 = .29$) based on 10,000 bootstrap samples did not include 0 (.1172 to .4707), supporting the corresponding mediation hypothesis (Hypothesis 8).

Finally, the direct effect of perceived negative social response on disclosure trauma (which initially was reflected by an $r = .57$, $p < .001$) switched signs and no longer was significant ($c' = -.08$, $p = .598$) once the mediating effects of post-disclosure stress and relationship disruption were taken into account.[3]

In summary, this analysis indicated that perceived negative social responses during the disclosure led to the perception that the disclosure was a traumatic event through two mechanisms. The two paths by which this indirect influence occurred were through: a) the elevated traumatic stress symptoms produced by the negative social responses and b) the adverse impact that the negative social responses had on the relationship between the discloser and disclosee.

Supplemental Analyses

The three phases of data analysis reported above comprehensively addressed the two primary research aims and corresponding hypotheses. Nevertheless, additional questions and issues emerged during the various stages of the data analysis. These led me to conduct several supplemental analyses that I report here.

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[3] This mediation model also was conducted with post-traumatic stress, depression, anxiety, and general distress disclosure as covariates. There were essentially no differences in the path coefficients or tests of significance. Indeed, all of the associations among the key variables that are reported in this chapter were statistically independent from this set of covariates.

Additional Covariate Analyses

In the current research, I wanted to demonstrate that perceived negative social reactions during a disclosure can become a new and distinguishable source of traumatic stress symptoms and included one traumatic stress scale, the PCL-5, that referenced the originating event (post-traumatic stress) along with a modified version, the PCL-D, that referenced the disclosure experience (post-disclosure stress). Importantly, the association between negative social response and post-disclosure stress remained very strong and significant when controlling for post-traumatic stress due to the originating event; but the association between negative social response and post-traumatic stress due to the originating event while controlling for post-disclosure stress did not (Table 15). Thus, the association between negative social response and post-disclosure stress (path a_1 in Figures 1 and 9) was independent of any overlap with post-traumatic stress stemming from the originating event. This association between negative social response and post-disclosure stress also was independent of any overlap with depression and anxiety symptoms (Table 16).

In a similar vein, I wanted to explicitly examine whether the association between negative social response and relationship disruption (path a_2 in Figures 1 and 9) was independent of post-traumatic stress due to the originating event and depression and anxiety symptoms. The multiple regression results in Table 17 clearly demonstrate that this was the case.[4]

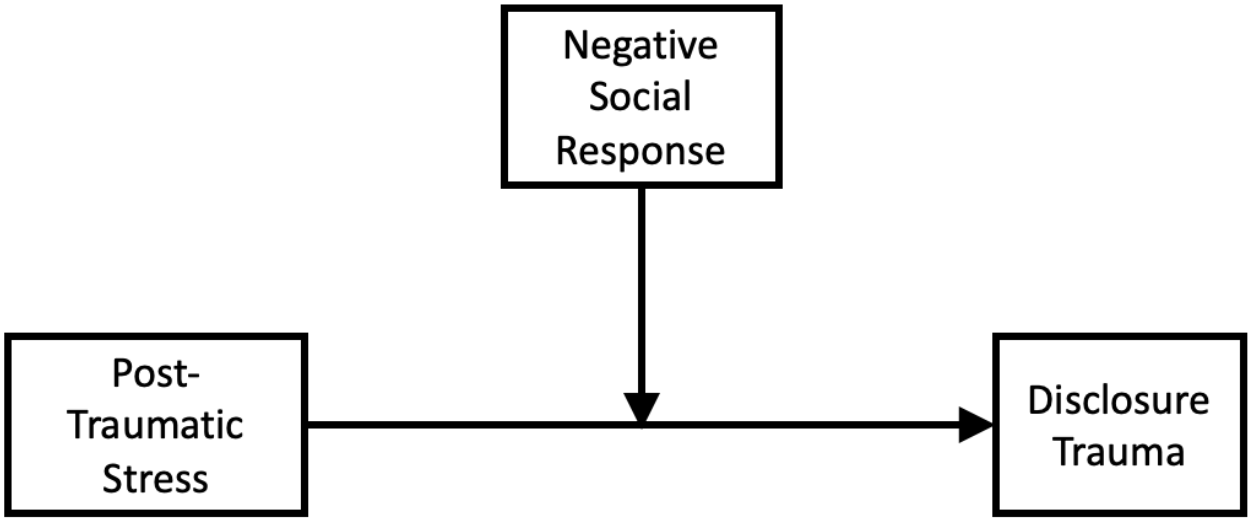
[4] It is interesting that post-traumatic stress due to the originating event was associated with less relationship disruption in this analysis (Table 17). This suppression effect (once negative social responses were controlled) could reflect a tendency for persons suffering from PTSD to strengthen their connection with supportive others. The positive association between depression and relationship disruption also is interesting and suggests that the relationship-disruption pathway to disclosure trauma may reflect depression-related symptoms in addition to the anxiety-related symptoms that tend to be the focus of standard measures of traumatic stress, including the PCL-5.

Moderation Model

Fundamental to my conception of the DINT phenomenon is the notion that the experience of a disclosure as a traumatic event is distinct from any distress stemming from the originating event. One of the regression analyses above clearly supported this notion by demonstrating that the association between disclosure trauma and post-traumatic stress due to the originating event was subsumed by the association between disclosure trauma and traumatic stress specifically due to the disclosure (post-disclosure stress).

Another way to disentangle the DINT phenomenon from any dependence on the distress of the originating event would be to show that an aversive disclosure experience can give rise to disclosure trauma even when there is little distress associated with the originating event. To test this possibility, I examined whether the association between post-traumatic stress related to the originating event and disclosure trauma varies as a function of the degree of negative social response during the disclosure (Figure 10). When the degree of negative social response is high, it should have a profound effect on disclosure trauma, and should override any association between post-traumatic stress due to the originating event and disclosure trauma. However, when the degree of negative social response is low, its influence on disclosure trauma should be low, and any variability in perceptions of disclosure trauma instead may reflect the degree of traumatic stress associated with the originating event. This contingency would yield an interaction pattern because post-traumatic stress due to the originating event would be less predictive of disclosure trauma when the negative social response is high and more predictive of disclosure trauma when the negative social response is low. I conducted a moderation analysis using the PROCESS macro (version 4.2 beta; Hayes, 2022) to examine this possibility.

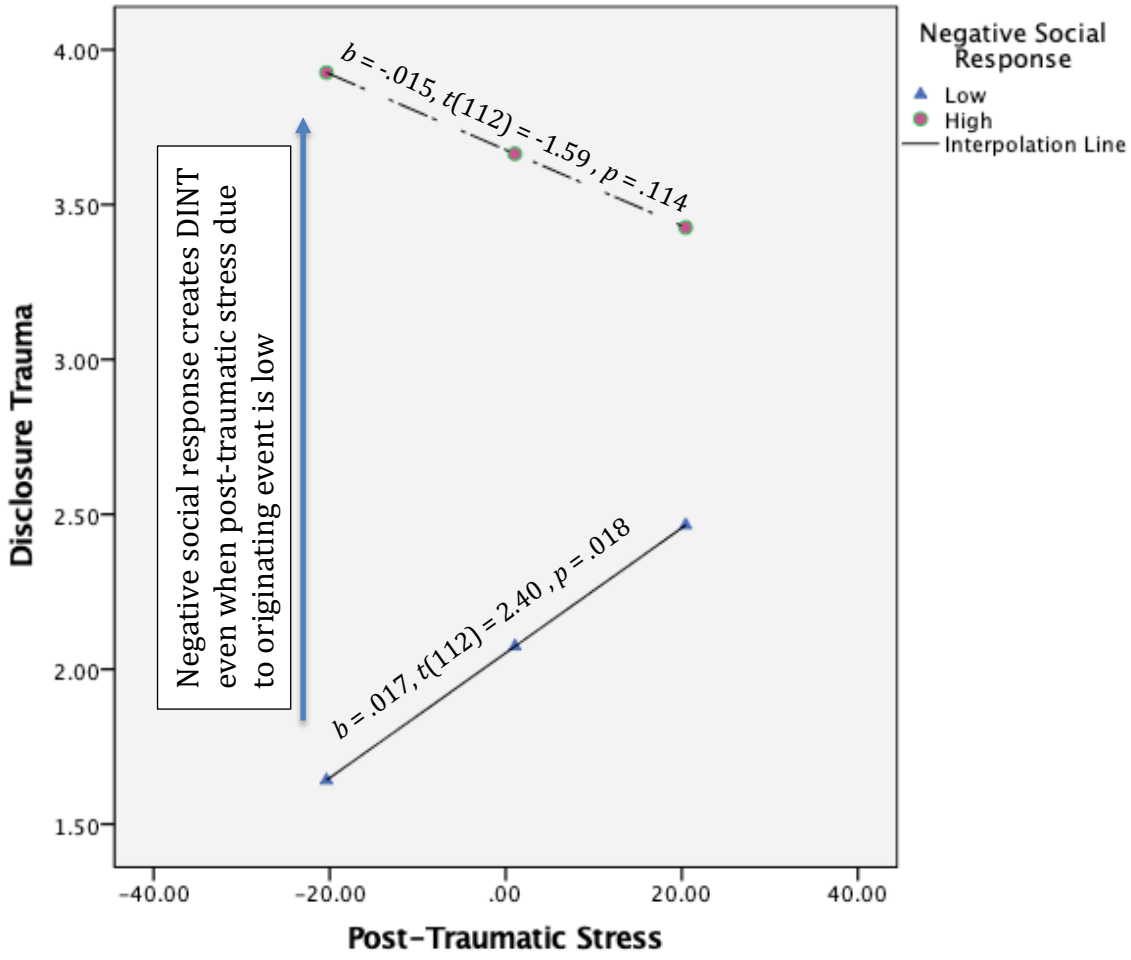
Figure 10. *Moderation Model*



Note. The association between post-traumatic stress due to the originating event and disclosure trauma is hypothesized to be moderated by the degree of negative social response during the disclosure. Post-traumatic stress due to the originating event is predicted to have little to no effect on perceptions of disclosure trauma when perceived negative social response to the disclosure is high.

The results of this moderation analysis are displayed in Table 18. The interaction between negative social response and post-traumatic stress had the predicted patten and was significant, indicating that post-traumatic stress had a greater effect on disclosure trauma when negative social response was low. In contrast, when negative social response was high, this overrode any association between post-traumatic stress and disclosure trauma. The implications of this interaction pattern can be seen in Figure 11. When disclosing an event that itself was low in traumatic stress (left side of the figure), a DINT experience was generated when the social response during the disclosure was negative. In such circumstances, the negative disclosure induced a new trauma even where none otherwise existed.

Figure 11. *Interaction Pattern from Moderation Analysis*



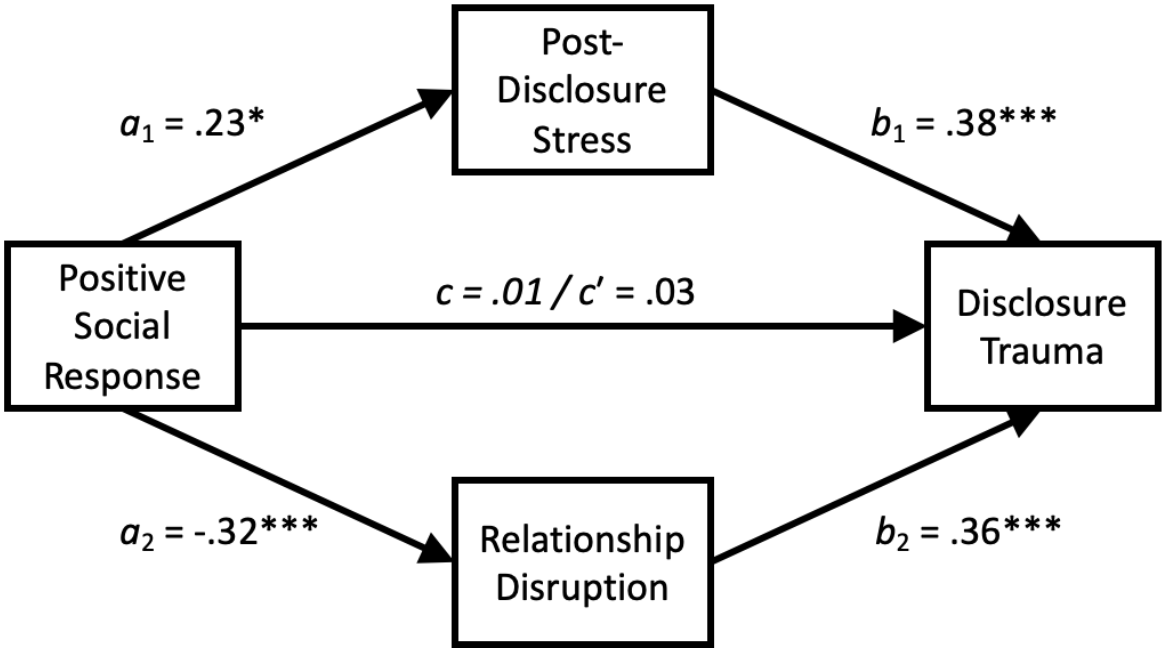
Note. Perceived negative social response has a large effect on perceived disclosure trauma across the board. In addition, there is no effect of post-traumatic stress due to the originating event on disclosure-trauma when perceived negative social response is high. The high negative social response overrides any effects related to the originating event. When perceived negative social response is low, however, there does appear to be some spillover effect of the post-traumatic stress due to the originating event on perceptions of disclosure trauma ($N = 115$)

Mediation Model for Positive Social Response

My hypotheses centered on the role of perceived negative social response in the formation of traumatic disclosure experiences, with the accompanying prediction that positive social response would be less impactful. I found the pattern of correlations involving positive social response in the bottom row of Table 10, however, to be intriguing and worthy of further

exploration. Positive social response had essentially no bivariate correlation with disclosure trauma. However, it was positively associated with post-disclosure stress and negatively associated with relationship disruption. This suggests that, on one hand, positive social responses may contribute to or reflect high traumatic stress symptoms, while at the same time help to maintain healthy relationship dynamics. Thus, like negative social responses, positive social responses may have two pathways in their impact on disclosure trauma. In the case of positive social responses, however, these two pathways ultimately have counterbalancing impacts. I tested this possibility using the PROCESS macro (Hayes, 2022). This multiple parallel mediation model was structured similarly to the mediation model I tested earlier (Figure 9) but substituted positive social response for negative social response (Figure 12; Table 19).

Figure 12. *Multiple Parallel Mediation Model for Positive Social Responses*



Note. This mediation model was tested using the PROCESS macro (version 4.2 beta: Hayes, 2022). The association between perceived positive social response and disclosure trauma was mediated by post-disclosure stress (a_1b_1 = .09*) and relationship disruption (a_2b_2 = -.12**). The pathway through post-disclosure stress led to increased perceptions of disclosure trauma, while the pathway through relationship disruption led to decreased perceptions of disclosure trauma.
*p < .05; **p < .01; ***p < .001

The first pathway from positive social response to post-disclosure stress and then to disclosure trauma (indirect path a_1b_1) was significant. A bias-corrected 95% confidence interval for the indirect effect (a_1b_1 = .08) based on 10,000 bootstrap samples did not include 0 (.0188 to .1741). The greater the positive response, the higher the post-disclosure stress symptoms (path a_1 = .235); and, the higher the post-disclosure stress symptoms, the more the disclosure was perceived to be traumatic (path b_1 = .377). Thus, perceived positive social response had a deleterious association with disclosure trauma through its positive association with post-disclosure stress.

The second pathway from positive social response to relationship disruption and then to disclosure trauma (indirect path a_2b_2) also was significant. A bias-corrected 95% confidence interval for the indirect effect (a_2b_2 = -.14) based on 10,000 bootstrap samples did not include 0 (-.2579 to -.0462). The greater the positive response, the less the disruption to the relationship (path a_2 = -.316); and, the less the disruption to the relationship, the less the disclosure was perceived to be traumatic (path b_2 = .357). Thus, perceived positive social response had an inverse association with disclosure trauma through its negative association with relationship disruption.

Non-Disclosers

A subset of survey respondents (n = 34; 20.4% of the full sample) reported that they had never disclosed the distressing event to anyone. Although these participants did not complete any of the measures focusing on a specific disclosure, they did complete the PCL-5, BAI, BDI, and DDI. This offered a comparison on these four measures between the non-disclosers and those who did disclose (Table 20).

Non-disclosers were significantly higher in PTSD-related symptoms specific to the distressing event that they identified, and they reported more elevated anxiety symptoms more globally. Non-disclosers also reported a significantly lower general tendency to share distressing things in their lives with others.

In order to understand a bit more about this subgroup, I examined the set of questions that these participants were asked after they had indicated that they had never disclosed their distressing event to anyone (e.g., "It would be embarrassing," "It would damage my relationship with them."). The full set of twelve questions is in Appendix B.3. For exploratory purposes, I created two subscales. The first subscale included the four items that focused on self-conscious emotions (items 1-4). The second subscale focused on items that referenced culpability or blame (items 5, 9, and 10). Overall, the non-disclosers indicated that self-conscious emotions (M = 3.43; SD = 0.98) played a larger role in their decision not to disclose than did concerns about blame (M = 3.05; SD = 1.05), $t(33) = 2.53$, $p = .017$.

What was particularly illuminating, however, was the pattern of correlations among these two subscales and the measures of post-traumatic stress, anxiety, and depression symptoms (Table 21). Post-traumatic stress and anxiety symptoms were correlated highly with both subscales, but particularly with the concerns-about-blame subscale. Indeed, when both subscales were included as predictors, the concerns-about-blame subscale was the more potent predictor of both post-traumatic stress and anxiety (Table 22). Possible implications of these patterns are discussed in the concluding chapter.

Chapter Five: General Discussion

When distressing situations arise, most humans tend to seek support, comfort, and understanding from others. By doing so, we open a channel to the plentiful resources that others can provide, and we hope to relieve the intrapsychic pressure that comes with concealment. We also place ourselves in a vulnerable position at the receiving end of an unknown response to our travails. The construct that I have introduced in this dissertation is a poignant example of the potential consequences of this vulnerability. When we share our traumatic experiences with others, the disclosure process can initiate a completely new trauma when we perceive the social reaction to be particularly tactless, insensitive, or blame-inducing. I label this phenomenon *disclosure-induced neo-trauma* (DINT), and the research I have presented supports the veracity of this phenomenon and the validity of the self-report instrument that I created to measure it.

There were two broad research aims. The first was to describe this new measure of disclosure trauma, examine its psychometric properties, and provide an initial test of its construct validity. The second was to present and test a conceptual model of the process by which negative social reactions to disclosure give rise to the formation of a DINT (Figure 4 on page 59). The model specifies that negative social reactions to disclosure create a DINT in two ways: by a) generating traumatic-stress symptoms distinctly related to the disclosure and b) damaging the relationship between the discloser and disclosee.

In this concluding chapter, I begin by reviewing the empirical findings relevant to each of these research aims (and their respective hypotheses) and discussing some of the conceptual implications. I then consider the limitations and strengths of this research at both a methodological and conceptual level. Throughout these two sections I attempt to reconcile the present findings with previously published research on concepts related to the DINT construct.

Third, I take a step back and explore broader issues related to contemporary thinking in trauma theory and convey how the DINT phenomenon and findings from the current research provide important insights for theory and practice. My conceptualization of this phenomenon emerged from my own clinical observations and I am particularly eager to share my thoughts regarding the clinical implications of the current work. Thus, I devote the fourth section of this discussion to advocating for a greater emphasis on disclosure processes in trauma treatment. Finally, I believe that the present research has only touched the surface and I have many ideas and suggestions for continuing my investigation of the DINT phenomenon in the near and long-term. I share several of these ideas for future directions in the fifth section of this chapter.

Evaluation of Current Research

The findings from the current research firmly support the construct validity of the new measure of disclosure trauma and the conceptual model specifying the processes that give rise to disclosure trauma.

Construct Validity of Disclosure-Trauma Scale

I created a six-item scale to assess disclosure trauma (Appendix B.6). The first item ("This disclosure experience, in and of itself…was a traumatic event") was used to test Hypothesis 1 that the DINT phenomenon is not particularly rare and that at least 10% of the participants from a reasonably large sample would indicate that they had experienced a DINT. In this particular sample, 15.4% strongly agreed that their disclosure experience was a traumatic event, and an additional 29.9% agreed somewhat that it was traumatic. Obviously, these percentages will vary widely based on the sampling strategy. Participants in the current sample were recruited through university classes and after a second amendment to the IRB a convenience sampling strategy was approved. There was no explicit incentive in the first round

of data collection and participants in the second round of data collection were recruited with explicit incentive of a raffle upon completion. In the end, this sample was fairly heterogenous on several background variables (Table 1), yet it was a convenience sample that did not intentionally target a specific population. A different sampling strategy, or even a similar strategy, would yield a different percentage – perhaps a very different one. The point of Hypothesis 1 was not to provide a point estimate of the prevalence of DINT in any given population, but to document that the DINT phenomenon is an experience that resonates with a nonclinical sample of people who have confided in others about distressing events in their lives and have received an unsettling response.

The larger disclosure-trauma scale was computed by averaging the first item with the remaining five. This scale had a unidimensional factor structure and high internal consistency. One benefit of the sample used in this initial validation study was that the participants varied across the full range in terms of the quality of their disclosures. As already noted, 15% strongly agreed that their disclosure was a traumatic experience. Conversely, many participants (33% of the total sample and 41% of those who had disclosed) reported never having a difficult disclosure related to the particular distressing event that was bothering them the most at the time. This variability was mirrored in the distribution of scores on the disclosure-trauma scale, which spanned the full range of possible scores (Figures 7 and 8). The disclosure-trauma scale, therefore, appears to be a sensitive measure. The sensitivity of the scale to individual variation is a very desirable psychometric property and is an important precursor to testing the pattern of convergent and discriminant validity correlations. If the scale did not index the full spectrum of disclosure trauma, its potential to be correlated with other scales would be muted.

The pattern of convergent validity correlations was very supportive of the construct validity of the new disclosure-trauma scale, which was correlated positively with post-disclosure stress, relationship disruption due to the disclosure, and perceived negative social response during the disclosure (Table 10). These three high positive correlations also supported Hypotheses 4-6 and were important elements of the conceptual mediation model that will be discussed soon. For the time being it is sufficient to note that the disclosure-trauma scale covaried in the anticipated way with other scales assessing disclosure processes, including the scale assessing perceived negative social response to disclosure, the SRQ, which is a very well-established measure (e.g., Relyea & Ullman, 2015; Salim et al., 2022; Ullman, 2000).

Additional analyses indicated that the disclosure-trauma scale diverged from other scales in ways that further support its construct validity. Specifically, disclosure trauma was not associated with positive social reactions. This finding is consistent with a recent large-scale meta-analysis that demonstrated that negative social reactions are related to poor psychological outcomes, but that positive reactions (perhaps because they are assumed) are not related to positive outcomes (Dworkin et al., 2019). On average, the level of perceived positive social response was higher than the level of negative social response (to the degree these are comparable; Table 9), yet the positive social responses were far less consistently correlated with any of the other scales in this study (Tables 10 and 12).

The disclosure-trauma scale was positively correlated with post-traumatic stress due to the originating event (Table 10). Critically, however, this association was due to the overlap of both of these scales with the measure of post-disclosure stress (Table 11). This was important to demonstrate because it emphasizes that disclosure trauma is related uniquely to traumatic stress due to the disclosure, rather than to stress due to the originating event. In a similar way, it was

important to show that the disclosure-trauma scale does not merely tap general anxiety and/or depression symptoms. Again, the association between disclosure trauma and depression and anxiety was fully accounted for by their common overlap with post-disclosure stress and, on the flip side, the association between disclosure trauma and post-disclosure stress was essentially unchanged when depression and anxiety were statistical controlled (Table 13). These discriminant validity patterns supported Hypothesis 9.

Conceptual Model of Processes Underlying Disclosure Trauma

The second broad research aim was to examine a conceptual model that identifies two distinct pathways by which negative social responses during a disclosure can contribute to the formation of a new traumatic experience (Figures 1 and 9). First, negative social responses produce peri-traumatic, acute, and post-traumatic stress symptoms (re-experiencing, avoidance, negative thinking and mood, and hyperarousal) that are directly attributable to the disclosure (Hypothesis 3; path a_1). The current research supported this hypothesis, as the correlation between negative social response and post-disclosure stress was quite high (r = .81). This indicates that there is a strong impact of perceived negative reactions to disclosure yielding post-disclosure traumatic stress symptoms. Moreover, this pathway was shown to be independent of post-traumatic stress due to the originating event and general depression and anxiety symptoms. Thus, the first link in the pathway from negative social response to disclosure trauma through post-disclosure stress (Hypothesis 3; path a_1) was firmly supported.

The second hypothesized pathway by which negative social responses form new traumatic experiences is by damaging the relationship and sense of trust between the discloser and disclosee (Hypothesis 4; path a_2). This pathway is distinct from the pathway involving traumatic stress because of its emphasis on interpersonal processes rather than individual-level

PTSD symptoms. As I reviewed the literature, I did not encounter a scale that closely matched this construct in the context of disclosure process. So, I created the relationship-disruption scale as part of the DINTS measure (Appendix B.6). This five-item scale was high in internal consistency and, in support of Hypothesis 4, strongly correlated with negative social responses. This association was independent of any overlap with post-traumatic stress due to the originating event and with depression and anxiety symptoms. Thus, the first link in the second pathway from negative social responses to disclosure trauma through relationship disruption was firmly supported.

The second pair of links in the two pathways (paths b_1 and b_2) were established at the zero-order level earlier when examining the convergent validity correlations, supporting Hypotheses 5 and 6. The multiple parallel mediation model demonstrated that these two associations were empirically independent from one another (Table 14; Figure 9). That is, despite the strong correlation between these two mediators, post-disclosure stress predicted disclosure trauma independently of relationship disruption (path b_1) and relationship disruption predicted disclosure trauma independently of post-disclosure stress (path b_2). This is an important finding because it corroborates my contention that disclosure trauma is a blend of individual-level traumatic stress symptoms and relational-level attachment injuries.

The two hypothesized mediation pathways (Hypotheses 7 and 8) were empirically supported by the tests of the two indirect effects. The first pathway from negative social response to post-disclosure stress and then to disclosure trauma (indirect path a_1b_1) was significant. The greater the negative response, the higher the post-disclosure stress symptoms; and, the higher the post-disclosure stress symptoms, the more the disclosure was perceived to be traumatic. The second pathway from negative social response to relationship disruption and then to disclosure

trauma (indirect path a_2b_2) also was significant. The greater the negative response, the greater the disruption to the relationship; and, the greater the disruption to the relationship, the more the disclosure was perceived to be traumatic. These two indirect effects -- through post-disclosure stress and relationship disruption -- fully accounted for the impact of negative social response on disclosure trauma.

Interim Summary

Findings from the present research support the hypotheses and conceptual model that I have proposed and yield three main conclusions:

1. The DINT phenomenon is genuine. A non-trivial percentage of people who share a distressing event with others regard the disclosure to be a new traumatic event.
2. Perceived negative social reactions from others instigate the new trauma by producing traumatic stress symptoms (re-experiencing, avoidance, hyperarousal, negative thoughts and feelings) and disrupting the relationship (communication, trust, betrayal, closeness).
3. These disclosure processes are distinct from traumatic stress symptoms that are rooted in the originating event (i.e., the initial subject of the disclosure) and are also independent from global anxiety and depression symptoms.

Supplemental Analyses

A series of supplemental analyses clarified that all of the associations among the key variables in the conceptual mediation model were independent of the set of covariates included in the study. This independence was important to demonstrate because it helps to demonstrate that the processes related to disclosure trauma are distinct from any traumatic stress associated with the originating event and from more general anxiety and depression symptoms. In addition,

the supplemental analyses addressed aspects of the data that I had not initially foreseen, but offered additional insights regarding the DINT phenomenon.

Moderation Model. One of these supplemental analyses was an attempt to further differentiate the traumatic disclosure experience from the distressing event that was the subject of the disclosure. The basic idea was to examine whether negative social responses can be seen to create traumatic disclosures even when there is very little distress/trauma associated with the originating event. Figure 11 displays the interaction pattern that supports this scenario. A high level of perceived negative social reaction yielded a strong perception that the disclosure was traumatic regardless of the level of post-traumatic stress due to the originating event.

Another important interpretation of this interaction pattern is that it demonstrates that, when negative social response during the disclosure is high, the distress levels due to the originating event play no role in predicting the perception that the disclosure is traumatic. The perception of disclosure trauma is completely driven by the perceived negative social response. In contrast, when negative social response during the disclosure is low, the distress levels due to the originating event do influence the perception that the disclosure is traumatic, but the level of disclosure trauma remains modest even when post-traumatic stress due to the originating event is high. In sum, this analysis goes a step further than simply demonstrating that the association between perceived negative social reactions and disclosure trauma is statistically independent of post-traumatic stress due to the originating event. It shows that when negative social reactions are high, they are the driving force in determining the perception that a disclosure is a traumatic event, completely overriding any influence of the traumatic stress due to the originating event.

Positive Social Responses. Although the results clearly demonstrated the potent influence of negative social responses on disclosure trauma, I also noted a compelling pattern of

correlations involving positive social responses. This led me to test another mediation model focusing on positive social responses as an indirect predictor of disclosure trauma (Figure 12). This analysis demonstrated that perceived positive social responses predicted disclosure trauma through two pathways, but that these two pathways had opposing effects on perceptions of disclosure trauma. One of the pathways had a straightforward interpretation. Perceived positive social responses during the disclosure were associated with less relationship disruption which resulted in the discloser perceiving the disclosure to be less traumatic. The other pathway struck me initially as counterintuitive. Perceived social responses were associated with higher (not lower) levels of post-disclosure stress which resulted in the discloser perceiving the disclosure to be more traumatic. Thus, positive social responses were related to heighted perceptions of disclosure trauma through this pathway. One possible explanation is that some of the "positive" social responses on the SRQ (e.g., "took you to the police" and "encouraged you to seek counseling") are not universally perceived to be positive and that these types of response may raise anxiety about the originating event. Another possibility is that if the discloser displayed signs of considerable anxiety during the disclosure. This may have prompted the disclosee to engage in "positive" social responses (e.g., "reassured you that you are a good person" and "held you or told you that you are loved"). As it stands, the current study does not provide a clear way to address which of these possibilities is more probable. Perhaps both or additional explanations play a part. I return to this issue later in this discussion when I consider the implications of the results for contemporary trauma theory.

The Non-Disclosers. The participants who indicated that they had never disclosed their distressing events to anyone had substantially higher levels of post-traumatic stress and anxiety symptoms compared to those who had disclosed (including those who reported difficult

disclosures). These high levels of anxiety and post-traumatic stress symptoms are consistent with Pennebaker's (1985, 1989, 1993) argument that inhibition of distressing experiences is maladaptive, and that writing about or otherwise expressing the thoughts and emotions related to these experiences is reparative. But there may be more to the story. In the current sample of non-disclosers, concerns about blame were the strongest predictor of negative symptoms. It is not knowable whether these concerns would materialize if non-disclosers did share their distressing events with others. However, the current research does show that perceived negative social reactions (of which victim blame is a major component) are highly associated with a host of negative outcomes related to the disclosure experience (relationship disruption, traumatic stress, etc.), as well as post-traumatic stress due to the originating event and depression and anxiety symptoms. Thus, the non-discloser appears to be in an unenviable position, and it is important for therapists and others concerned for their welfare to appreciate the conundrum and facilitate safe and supportive disclosure outlets.

Limitations of Current Research

Despite the many strengths of this research, there are several limitations needing to be acknowledged and potentially addressed in future studies. First, the study relied on retrospective self-report measures of the constructs of interest, all of which were assessed at a single time point. This prevents the ability to make causal inferences and to track the sequence of processes as they unfold. It also places considerable weight on participants' recollections and their capability and willingness to provide accurate information. My goals when designing this research were to get an initial test of the self-report measure of disclosure trauma and to test the plausibility of the conceptual model of the processes underlying the formation of traumatic disclosures. A survey seemed like an appropriate and expedient methodology to address these

goals. Nevertheless, an interview protocol might provide more robust details about the disclosure experience as well as the originating distressing event, and a daily diary or other longitudinal assessment protocol might provide a better model of the temporal relationships among the variables.

To demonstrate that disclosure trauma can be distinct phenomenologically from the originating event, a pair of experiences needed to be identified, assessed, and (in certain ways) compared in this research: a) an originating distressing event and b) a corresponding disclosure of that event. I opted to have participants first identify the stressful event that currently bothers them the most and then rate the traumatic stress symptoms they have experienced during the past month. Participants were then asked whether they had ever disclosed that event to anyone and, if so, whether any of those disclosures had been difficult ones. This strategy ensured that participants were focusing on an issue of present concern, but it did not necessarily target their worst disclosure experience. It may be advisable to modify the procedure to first identify the worst experience participants have ever had disclosing something, and then to provide details about the event that was the subject of the disclosure. As it stands, the current procedure may have missed traumatic disclosures that have had considerable influence on the quality of life and relationships of the participants. In effect, this procedure may have underestimated the frequency and/or severity of DINTs in the current sample.

Another important aspect of the current methodology was my decision to measure traumatic stress symptoms for both the distressing event and the disclosure experience based on the PCL-5. For the originating distressing event, I used the PCL-5 with criterion A (event) which typically is used in the context of making a possible PTSD diagnosis (e.g., Resick et al., 2017), tracking changes in PTSD symptoms over the course of treatment (e.g., Gallegos et al., 2020) or

in other research focusing on populations with a high prevalence of diagnosable PTSD (e.g., DiMauro & Renshaw, 2021). The PCL-5 is often used after first administering the Life Events Checklist (LEC) in order to identify the person's trauma history and choose the "worst event" from that history (Weathers et al., 2013b). Moreover, the instructions for the PCL-5 reference examples of stressful events that closely map onto the DSM-5 criterion for a qualifying event (serious accidents, death of close friend/relative, war, sexual assault, homicide, etc.). For the current study I was concerned that using the LEC would exclude other forms of subjectively appraised trauma and, given that the originating event did not need to be a traumatic one in order for the disclosure to be traumatic, I elected not to include the LEC and added instructions to the PCL-5 to "focus on a 'stressful event' that has had some degree of long-term impact. This could be one of the examples above or some other mild to extremely stressful experience." The purpose of these additional instructions was to allow participants to identify whatever event (or series of events) was bothering them the most at the time, even if it was not particularly stressful.

Because participants were invited to share a distressing event that was subjectively appraised, there was considerable variability in what they identified as their "worst event." Numerous stereotypical traumatic events including "war," "sexual assault," "domestic abuse," "death of a loved one," and "car accidents" were reported. Other events included "sibling problem," "parental overdose," "poverty," "work pressure," "hunger," "divorce," "COVID anxiety," and "sudden death of a pet." There were a few who reported more day-to-day stressors including "failing an exam," "academic worries," and "getting a promotion at work" and that apparently were regarded as the concerns that were "bothering them the most" at the time of taking this inventory. Some participants opted to not share their identifying event due to

discomfort or the vulnerability of doing so, writing things like “I would rather not say.” Suffice it to say, the PCL-5 is not commonly used to rate such a wide array of events.

I also used a modified version of the PCL-5 to measure traumatic stress symptoms due to the disclosure. I chose to do this for two reasons. First, it provided a common metric to index the traumatic stress symptoms attributable to the originating event and those attributable to the disclosure. Measuring these two sources of traumatic stress symptoms on the same scale was vital throughout all phases of the analyses. Second, to qualify a disclosure experience as a traumatic event, it was important to measure it in the same way that the field currently measures trauma and PTSD. I am aware of no current measures of subjective traumatic stress reactions at the time of the trauma (i.e., inquiry of trauma responsivity, subjective experience of physiological shifts). Traumatic stress measures such as the PCL-5 typically address the traumatic event and the post-traumatic symptomology. A limitation to modifying the PCL-5 to assess traumatic stress symptoms that are due to the disclosure process is that disclosure-induced traumas may have additional or differential traumatic stress symptoms both acutely and chronically (i.e., patterns of trust, interpersonal processes) that still need to be identified and clarified.

Additional concerns with the measurement instruments include the self-identification of the disclosure as a “trauma” as well as the constructs being measured in the DDI and SRQ. Within the disclosure-trauma scale, of the six questions inquiring about the level of distress experienced during the disclosure, the first question directly asks how strongly participants agree that the experience was in fact a traumatic event for them. The response options were Likert scale (*strongly disagree, somewhat disagree, neutral, somewhat agree, strongly agree*), which provided opportunity to identify their experience on a spectrum. However, the direct language in

defining the experience as a trauma may have left some participants reluctant to commit their experience to being defined that way. The conceptualization of this study is to determine that these experiences can be traumatic in hopes of validating and acknowledging the distress some persons have during disclosure and advocate for better responses in the future to address issues like victim blaming. Nonetheless, that is not how society at large views 'big T' traumatic events, so some individuals may be hesitant to identify their problematic disclosures as "traumatic."

The Distress Disclosure Index (DDI: Kahn & Hessling, 2001) is a general measure of a person's tendency to confide in others when distressed. This measure was included in the present study as possible "downstream" outcome of a traumatic disclosure. Although general distress disclosure was not associated with disclosure trauma, it was associated with lower levels of negative social response, post-disclosure stress, and relationship disruption. The present study would have benefitted from a larger set of measures assessing potential downstream consequences of disclosure trauma.

Attachment theory (Bowlby, 1969) is a major framework upon which the construct of DINT is based. The motivation to seek proximity to others and share vulnerable experiences is grounded in the attachment system. Individual differences in attachment style likely impact the manner of disclosure and the interpretation of social reactions. And, as the findings from the current study suggest, traumatic disclosures can have long-term impacts on attachment relationships. Due to the already lengthy survey and concerns about attrition, I decided not to include measures of attachment for this initial examination of the disclosure-trauma scale. I decided instead to include measures of general anxiety and depression because I considered these to be important control variables that also were helpful in assessing discriminant validity. The attachment categories likely would play a role in disclosure tendencies (level of motivation to

disclose) and subsequent needs and interpretations within the disclosure process. The concept of attachment disruption or injury (Johnson et al., 2001; Lafontaine et al., 2022) may play a pivotal role in the underpinnings of the disclosure being traumatic as it would impact the IWM of self and other (Bowlby, 1988; Bretherton & Munholland, 2016; Pietromonaco & Barrett, 2000) acutely and potentially be a chronic modification. Excluding measures related to attachment style and attachment impact reduced the potential magnitude of the contribution of the present research as these measures would elucidate the DINT experience.

Finally, the Social Reactions Questionnaire (SRQ: Ullman, 2000) was the only measure utilized to understand the interpersonal responses during disclosure. This measure contains a large and comprehensive set of items addressing what people may say or do in response to a disclosure. The items in the SRQ were tailored to a specific type of trauma (i.e., sexual assault), however, and may not generalize to the wide assortment of distressing events represented in the current study.

The limitations of this study help to identify areas of improvement. In the future directions section below, I address each limitation and propose amendments for research going forward.

Implications for Contemporary Trauma Theory

The construct of disclosure trauma presented in this dissertation adds to contemporary trauma theory in that it addresses an underappreciated component of the post-trauma experience and highlights an additional potential for traumatic experience within the trajectory that follows a distressing event. It also introduces the term “disclosure trauma” into the lexicon and adds a new taxonomy of traumatic experience: disclosure-induced neo-trauma (DINT).

DINT as a Unique Trauma Taxonomy

First and foremost, conceptualizing a DINT as a specific trauma taxonomy is a means of validating and acknowledging this difficult experience for those for whom this resonates. Prior to a diagnosis of post-traumatic stress, survivors were pathologized, misunderstood, and there was no language to normalize the symptoms being experienced. Likewise, many persons, upwards of 60-80% of a given population (CDC, 2019; Felitti et al., 1998; Kessler et al., 2017), experience at least one traumatic event, and the majority of those disclose in some fashion at least once to another person (Sylaska & Edwards, 2014).

There is no clear tangible acknowledgment within contemporary trauma theory or diagnostically to directly address this disclosure-related traumatic experience, which is qualitatively different than (a) the originating event, (b) secondary trauma, or (c) retraumatization. DINT is conceptually a new traumatic experience that is distinct and can have a different trajectory than standardized symptoms of post-traumatic stress, including issues of trust, intimacy, blame, relationship disruption, betrayal, and altered internal working models. Secondary trauma refers to a specific context of revictimization during rape or sexual assault disclosure with feelings of a second violation leading to silence due to the negative response (Campbell et al., 2001). DINT refers to a more global phenomenon and can be broadly applied to disclosures of issues on a spectrum of distress/trauma. In addition, it can be useful to examine the degree to which individuals experience disclosure trauma and to a variety of positive and negative social reactions including, but not limited, to blame.

Secondary trauma also refers to witnessing (Elwood et al., 2011) and is used interchangeably with vicarious trauma (Boscarino et al., 2010), which is inherently different than a DINT, as a DINT is a directly experienced traumatic event. Lastly, retraumatization can refer

to reliving the original event (Alexander, 2012) or experiences that parallel the original event in some manner (i.e., exploitation within hierarchy as an isomorph to early childhood abuse by a parent within a family system), but considered another traumatic event (Duckworth & Follette, 2012; Follette & Vijay, 2008). DINT is distinct from the original event and separate from reliving that originating experience and is a trauma specific to the disclosure process. DINT is conceptually a trauma typology, potentially considered a "Big T" trauma, and a major component of the sequelae of post-traumatic stress symptoms. This phenomenon deserves special consideration in the course of treatment and healing as the long-term impact may involve more interpersonal processes with a corresponding emphasis on post-traumatic symptoms related to relationship difficulties, rather than the typical focus on arousal and avoidance symptoms.

Disclosure and Social Response

This study contributes to the literature addressing the benefits of interpersonal disclosure, which is marked by contradictory findings and conflicting theories. A great deal of evidence supports the psychological and physiological benefits of seeking support (S. E. Taylor, 2006), including as a buffer against the deleterious impact of stress and as an aid to healing from trauma (Frattaroli, 2006; Guay et al., 2006; Pennebaker & Susman, 1988; Sloan & Wisco, 2014). Evidence for the benefits of social support extends to endocrine correlates, such as oxytocin (Carter et al., 2020). Prototypically, it is understood that positive socially affiliative support protects against the effects of PTSD (Cohen & Willis, 1985; Flannery, 1990). At the same time, some research has shown that, even when support is prosocial, it does not necessarily mitigate PTSD symptoms (Laffaye et al., 2008).

In the current research, there is evidence that inhibiting disclosure is maladaptive. The subsample in this study who never disclosed their trauma had significantly higher PTSD and

anxiety symptoms, which is congruent with the literature supporting the importance of seeking social support rather than internalizing (Afifi & Caughlin, 2006; Finkenauer & Rimé, 1998; Graham-Bermann et al., 2011). In addition, the current findings provide clear evidence that negative responses to disclosures are maladaptive and can create a new source of traumatic stress, adversely impact relationships, and even spawn a new traumatic life experience (DINT) with its own recovery trajectory.

The complexity of the association between positive social response and the quality of the disclosure experience that is evident in the published literature (Dworkin et al., 2019), however, was also evident in the current research. Positive social response had a pattern of correlation with post-disclosure stress and relationship disruption that seemed contradictory (Table 10). A supplemental mediation analysis (Table 19, Figure 12) indicated that positive social response was associated with lower levels of disclosure trauma through its association with lower levels of relationship disruption. At the same time, positive social response was associated with higher levels of disclosure trauma through its association with higher levels of post-disclosure stress.

In the end, the current study demonstrated that not disclosing a distressing event was clearly maladaptive and that disclosing but receiving a negative response clearly resulted in poor disclosure outcomes. In contrast, disclosing and receiving a positive social response appears to be a mixed bag – exacerbating post-disclosure traumatic stress but protecting against severe relationship disruption. As with the broader literature on PTSD (Dworkin et al., 2019), a parsimonious and definitive conclusion about the link between positive social responses and disclosure trauma is elusive in the current study. What is compelling, however, is the notion that the effects of positive social responses diverge in two distinct pathways that have contrary

impacts on disclosure trauma, suggesting that positive social responses may have "multifinality" (Bertalanffy, 1968).

Three final points need emphasis. First, much of the research focusing on social reactions to disclosure emphasizes how negative responses can interfere with recovery from the original traumatic experience, and the outcome measures of PTSD symptoms typically reference the originating event (e.g., Bonnan-White et al., 2018; DeCou et al., 2019). This makes sense because disclosures often are an integral part of the coping process following a traumatic event. However, by maintaining focus on the originating event, this research might be confuting changes in PTSD symptoms related to that event with traumatic stress symptoms that are better understood to be related to a novel traumatic life experience that will have its own unique genesis and recovery trajectory.

Second, the weight or impact of negative social responses was consistently stronger than that of positive social responses and, thus, negative social responses might account for symptomology of PTSD even if there are positive aspects to the disclosure as well. This could be because positive responses are more common and expected in this context, and negative responses represent aversive expectancy violations (Baumeister et al., 2001; Burgoon, 1993). In addition, this pattern may represent a general negativity bias in human cognition (Norris, 2021; Rozin & Royzman, 2001; Vaish et al., 2008).

Third, I have been careful to place reminders throughout this document that the current research addresses the discloser's *perception* of the social behavior of another person. A given social response likely will be perceived very differently as a function of between-person and within-person variation in its interpretation. Nevertheless, these perceptions appear to have

considerable impact, with the combined effect of perceived positive and negative social response accounting for 70% of the variation in PTSD symptoms post-disclosure.

Clinical Implications

There are many clinical implications for the findings from this study. First, I highlight that disclosure trauma is an impactful distressing experience and describe ways in which this construct intersects with therapeutic practice and has application to the real world. Then I consider the use of the instrument for measurement of disclosure trauma in clinical and research contexts.

Findings in this study suggest that a DINT is not an outlying or uncommon experience. The data indicate that over 15% of this sample of participants identified their disclosure to be a traumatic experience for them and 45% reported the disclosure to be somewhat traumatic. This is consistent with previous findings suggesting a subset of disclosures to be adverse experiences (Aherns, 2006; Filipas & Ullman, 2001; Jackson et al., 2016; Leibowitz et al., 2008). It was further understood from the data that the disclosure process has the potential to create traumatic stress and subsequent post-traumatic impact distinct from the originating event that was being disclosed and the level of post-traumatic stress related to that original event. In fact, a subset of those who reported having experienced a DINT (strongly agreeing that the disclosure experience was traumatic on the DINTS measure) had lower PTSD scores on the PCL-5 for the original event compared to their scores on the PCL-D, indicating the disclosure experience was more stressful for them than the originating event (Figure 11). This suggests that the disclosure process is in fact a novel traumatic experience for some persons with post-traumatic stress symptoms that overshadow those stemming from the event being disclosed. This is important because therapists, counselors, and supervisors are in a unique position bearing witness to regular disclosures, and

family therapists, in particular, situate themselves in a context where disclosures happen between family members or within couple dyads and where DINTs can occur and, likewise, be prevented.

It is important to understand the seemingly paradoxical and sometimes contradictory nature of social support in relation to trauma and PTSD. Moreover, it is helpful to recognize that there may be more complexity and potential risk for new trauma to be experienced within the initial stages of the recovery trajectory post-trauma. Social support seems necessary for optimal healing and recovery from a traumatic experience, yet the pathways within this context can vary quite substantially and pose unseen risk. As clinicians, like medical professionals, we intend to do no harm under the Hippocratic oath and need to be advocates for minimizing risk of disclosure trauma. The first step in doing so is to recognize its existence and prevalence. To be trauma-informed (Eales & Goodwin, 2022) practitioners and supervisors, we should integrate this new knowledge that disclosure processes have the potential both to compound the original traumatic effects and to cultivate new traumatic experiences. This integration can include and move toward a *traumatic-disclosure-informed* or DINT-informed assessment of further trauma that may be affecting a client or patient. The disclosure-trauma measure developed in the present research may have utility in the clinical setting in conjunction with established trauma and PTSD measures for purposes of diagnosis and treatment planning.

Despite our knowledge of the prevalence of trauma and adverse experiences generally (CDC, 2019; Felitti et al., 1998; Kessler et al., 2017; Ports et al., 2020; Resnick et al., 1993; Sacks & Murphey, 2018; Vrana & Lauterbach, 1994), many treatment providers ranging from hospital to outpatient settings continue to practice medicine and mental health care in a non-trauma-informed manner (Chung et al., 2012; Mahon, 2022; Reeves, 2015). The damage done as a result of this missing conceptualization is not the point of this dissertation. However,

misattributing symptoms to an alternative diagnosis when the root etiology is trauma is analogous to what I am proposing regarding missing or overlooking a disclosure trauma.

The therapeutic alliance is an important aspect of treatment from a systems theoretical perspective (Aponte, 2022). Many forms of therapy highlight the relationship between psychotherapist and client and emphasize that this dynamic is integral to the therapeutic process and is linked to treatment outcomes (Tschuschke et al., 2022; Werz et al., 2022). Given that the DINT is a trauma cultivated through disclosure, there are significant implications in the therapy context which I conceptualize in terms of two different pathways. First, the therapeutic alliance can be impacted by previous disclosure traumas. One posited long-term implication of a DINT is generalized distrust, particularly in sharing vulnerable experiences or associated feelings. Thus, it may be a barrier therapeutically if a client has experienced a DINT or multiple DINTs and subsequently is more guarded or avoids disclosing in fear of re-experiencing the painful feelings from the time of the original disclosure. Persons who were subjected to high negative social reactions previously may view the therapeutic relationship differently than those who have had mostly favorable social support across time, even with diagnoses of PTSD or complex PTSD from originating events. Thus, the client may not feel safe with the therapist, and without explicit inquiry clients may not recognize or acknowledge a negative disclosure experience as traumatic and may not disclose the aversive previous disclosure. Second, the disclosure can take place within the therapeutic context between the therapist and client or between members of a family or couple system with the therapist present. Similar to treating complex trauma in therapy by creating safety and challenging denial and other negative or retraumatizing responses by family members (Barrett & Stone Fish, 2014) the therapist needs to home in on these moments of

disclosure to not only promote prosocial response, but to mitigate any negative social response (as these appear to carry more weight for the discloser).

As a researcher who also practices clinically, I have had clients with high PTSD scores on the PCL-5 who during the therapeutic work revealed traumatic disclosures that clearly had higher impact on their current presenting problems than did the original traumatic event. In fact, I have had a number of clients share in confidence that they felt that a particular disclosure experience during their life was more painful than the originating traumas. For example, the experience of disclosing to their mother at some point during their childhood and receiving blame, rejection, disbelief, or dismissal. The emotional pain was more intense than when they thought of the original abuse or perpetration by another family member. They had mustered the courage to seek support and had hoped for love, acceptance, and understanding but found themselves left in a worse position in the aftermath of the disclosure. These clinical experiences, in large part, are what prompted the current research.

Future Directions

This study focused on the theoretical conceptualization of a disclosure-induced neo-trauma as a potential trauma on its own. Additionally, this study posed a new measure and examined its construct validity in order to provide a standard instrument that researchers and clinicians can use to identify and index this experience. It is my hope that the disclosure-trauma scale will have broad utility and that my introduction of the DINT construct to the literature will generate further research interest.

As noted in the limitations section, future research should first prioritize the disclosure process, rather than making the identification of the disclosure contingent on the precipitating event. In the current research, 59% of the participants were able to identify a difficult disclosure

linked to the distressing event they earlier identified. If they first were asked to identify a difficult disclosure, it would allow participants to focus on their worst disclosure experience. In doing so, it also would be helpful to request a fuller account of the disclosure based on a series of open-ended questions that would prompt for elaboration and would facilitate trauma-taxonomy coding. The list of traumatic symptoms associated with the disclosure also should not be restricted to those on the PCL-5 and should incorporate symptoms that are pertinent to traumatic disclosures. In a similar vein, the details of the precipitating event needn't be provided in the context of the PCL-5, nor should there be any requirement that the precipitating event be gauged in terms of DSM-5 criteria for a PTSD diagnosis. In fact, according to my perspective, a DINT results from the characteristics of the disclosure experience and need not be linked to a traumatic or extremely stressful precipitating event.

The sample for this initial validation study did contain a high percentage of participants (64%) who reported on the PCL-5 a distressing event that met the DSM-5 criteria as a qualifying event for a PTSD diagnosis. It is not surprising, therefore, that the average level of post-traumatic stress symptoms was also high for this sample (Table 4). It is important to emphasize, though, that this sample was not targeted for previous trauma exposure. In other words, there was no prerequisite trauma history as an inclusion criterion to participate. And, despite the relatively high levels of PTSD symptomology, the sample included a wide and diverse spectrum of experiences in terms of the originating distressing event. More importantly, it yielded considerable variability in the reported experiences of disclosure -- ranging from extremely negative to extremely positive. The benefit of this variability was that it simultaneously provided an opportunity to identify a sizeable number of cases at the high end of disclosure trauma and to have a sufficient number of responses across the full range of the scale to examine its

associations with other key variables in the study. This study provided data to suggest that on the high end of the disclosure-trauma spectrum, a DINT is an identifiable experience affecting enough persons to warrant further research and exploration. And, it provided data to model the processes associated with variability at all levels of disclosure trauma.

In future studies, it may be helpful to use the disclosure-trauma scale to identify especially traumatic disclosures and to sample from that population to understand the long-term implications more deeply. The current study placed priority on assessment of the construct validity of the disclosure-trauma scale and was not designed to address long-term consequences of traumatic disclosure experiences. Importantly, the ultimate impact of an initially distressing disclosure experience may not always be maladaptive for the individual or for the relationship. If the DINT experience is processed and new interactional patterns are established as a result, the relationship might not only heal from and acute DINT experience, but potentially may grow stronger. In other words, post-DINT growth, both personally and relationally, may be an alternative and more positive trajectory. Intriguing and multifaceted downstream effects such as these require further research – ideally based on longitudinal or prospective designs.

Examining disclosure processes in vivo and incorporating physiological measures would be a fascinating avenue to pursue. The neural underpinnings of the negative disclosure experience likely involve a maladaptive form of mirroring or synchronization in which both the discloser and the disclosee become activated (i.e., dual amygdaelic activation). This mirrored activation state can become a runaway feedback loop interpersonally or a chronic pattern of maladaptive interaction. Another pathway interpersonally would be dysynchronization with discrepant trauma responses and discordant intersubjective experience (i.e., discloser in tend-and-befriend and disclosee reacting with flight-fight-or freeze rather than tending reciprocally).

Both negative forms of disclosure experience, either mirrored synchrony or reactive dysynchrony, can lead to attachment injuries and alter IWM of self and other. These interpersonal dynamics harken back to the earlier discussion of differentiation as it is conceptualized within Bowen family systems theory (Bowen, 1978). The current study did not address the experience of the disclosee and the reasons for their reactions to the discloser. If the disclosee is undifferentiated it may be difficult for them to provide a properly attuned and supportive response during this anxiety-laden context of disclosure. Such maladaptive interaction patterns could be observed through neurophysiological assessments, such as EEG, EKG, blood pressure, and skin conductance of both the discloser and disclosee.

In addition to quantitative and neurophysiological methodologies, a qualitative approach would also be a generative route toward further understanding the disclosure process and the DINT phenomenon. There was a mixed-method component to this research, as the survey included open-ended items at several points. For example, participants were asked to provide an "impact statement" about their disclosure experiences. Below are a few examples of statements about negative disclosure experiences:

> I don't trust people to fully care about me or believe me. I have lower self-esteem in myself and my ability. I struggle with intimacy. I feel that I have much riskier relationships now because I feel deserving of chaos and like it doesn't matter if I get hurt anymore. "Everyones right about me I cause my own harm" type thing.
>
> This experience made me not want to confide with anyone about my personal issues.
>
> Telling my friend made me feel more isolated because I realized that very few people can provide empathy and understand what I am going through. They think that I am being too negative in regards to my brothers outlook, because they don't understand what I've witnessed over the past 15+ years of his alcoholism. I sometimes feel judged when I open up to people about how I feel that his disease is a terminal illness. Based on this experience and others I tend to avoid opening up to friends about my brother. I don't

> gain anything from telling them about him other than a very uncomfortable conversation in which I end up feeling more bad for making them feel bad!
>
> I told my friend what I really thought, but my friend betrayed me and spread it widely.
>
> This experience has made me question people's intentions within friendships. Since this event, and disclosure of the event, I have trusted people in my life less and less, which ultimately has had an effect on feeling safe within interpersonal relationships.
>
> It was like a re-traumatize experience for me because the event I thought was most important and impacted the most was invalidated by my closest family members. We have never talked about it ever again since then and he acted like it did not happen or not a big deal really hurts me and makes me doubt myself that if I am overreacting or exaggerating my experience.

Below are two examples of statements about positive disclosure experiences:

> This disclosure to this person has brought clarity and understanding that I can trust and feel safe in sharing this experience. While I held it for so long, not wanting to burden my daughter with something s traumatic to me, she made me feel okay about talking about it. She validated that it was an awful experience and made me feel okay about sharing it.
>
> Disclosing this to my partner made me feel like our relationship was stronger. I have more trust in him and he makes me feel safe. I feel like I have more power and control over the what happened after disclosing it to my partner. He had always been kind and considerate intimately before and continued to be afterward and never treated me any differently. I still have shame and guilt about what happened but significantly less than I did before I disclosed to anyone. It was an extremely freeing experiencing after getting through disclosing it. Like a weight lifting off my chest that I had forgotten had been there for so long.

Often, the impact statements made it clear that the disclosure experience could be multifaceted.

Here is one example:

> Although this person held space for me and my emotions during the disclosure experience, I internalized feelings of guilt and shame about myself. Sometimes I still think about the disclosure experience and become embarrassed. I wish the person held me and told me it wasn't my fault to help alleviate some blame. I still believe that this person is safe and would disclose to her again. The disclosure experience brought up

> difficult feelings I had towards myself and thus amplified them. But I recognize it wasn't this person's responsibility to take care of my feelings.

Impact statements such as these provide a wealth of information that can be used to deepen understanding of the disclosure process. With a larger pool of these impact statements, thematic coding could be used to identify salient patterns (e.g., betrayal, misunderstanding, internalization, fear of validating negative self-beliefs, guilt about burdening the other person, confidentiality concerns, generalized distrust) that can inform a refinement of the disclosure-trauma scale to better ensure that it fully captures the phenomenon.

An additional route to follow in future research is to explore the reasons why people choose not to disclose and to investigate more fully the ramifications of non-disclosure. The survey contained an open-ended question asking non-disclosures to describe why they did not share the distressing event with anyone. Perhaps it is not surprising that about half chose not to respond and that these descriptions from those who did were, for the most part, very succinct. Below are a few select examples:

> It was uncomfortable but I allowed it to happen because I was young and too trusting. I've never had a reason to share it with others. It was a significant event in my life but I learned from it and won't let it happen again. I was able to compartmentalize it as a part of life and move on. A learning experience perhaps?
>
> I'm afraid someone will blame me
>
> I think I can solve myself and comfort myself.
>
> I don't know who to talk to or how to talk
>
> I don't like to share my thoughts with others, but I would rather bear them silently.
>
> Can't say it

Despite the obvious challenge of getting non-disclosers to expand upon their reasoning, their high levels of PTSD and anxiety symptoms indicate a clear need to reach this subgroup and understand the barriers to disclosure. Perhaps by identifying these barriers it will be possible to structure an environment that addresses these specific concerns and provides a sense of safety (emotional and otherwise) for those who are reluctant to disclose. Future research should address this prospect.

Although I have argued that subjective appraisals are a defining factor as to whether a particular event should be considered "traumatic" for a give person, the self-identification of a disclosure as traumatic may be too direct. It might help strengthen the DINTS measure to ask some clarifying questions regarding the level of distress experienced. The insensitivity to disclosure experiences as being the root cause of distress is not limited to theorists and clinicians. Individuals may not recognize the impact of negative disclosures within themselves or may be reluctant to use the term "trauma" to identify this experience. For instance, someone may have witnessed another person's homicide and might have had a very distressing disclosure experience, but when pointedly asked if their disclosure was traumatic for them, despite feeling helpless, overwhelmed, and abandoned during their confiding experience, by comparison they may not commit to identifying the experience as traumatic. The measure would need to define the traumatic experience as a subjectively appraised event causing distress, rather than assuming this to be true for the general public in which there are likely internalized standards suggesting that some experiences are "trivial" or that victims themselves are at fault.

Additionally, a more comprehensive narrative about the disclosure would provide information that would aid construction of a modified DINTS measure. The current standard for defining a traumatic event does not fully capture the defining features of non-acute forms of

trauma, including complex trauma and developmental trauma. Likewise, there likely are some universal themes to disclosure trauma in addition to the commonly identified "fear, helplessness, and horror" that are the current standard. Therefore, I believe that DINTs have distinct markers (i.e., possibly items similar to abandonment or helplessness), and fuller disclosure narratives will help to identify these features.

Finally, alternative individual-difference measures to those employed in the present research should be examined when addressing disclosure processes in future studies. For example, the Distress Disclosure Index (DDI) assesses general tendencies to discuss and share distressing feelings and experiences with others. It would be beneficial to adopt or create an instrument that address a specific disclosure process. Perhaps asking participants to rate their disclosure tendencies specific to the originating event over time would help to identify whether people stopped talking about their trauma if they received a negative reaction. The DDI is general and a study might benefit from something specific to their experience of disclosing trauma as general tendencies to share might not be indicative or hold any predictive utility for the disclosure of the trauma specifically or patterns of disclosure of trauma thereafter. In addition, findings in this study noted that the general distress disclosure was most closely associated with the measure of depression symptoms. It would be interesting to explore further the role of hypoarousal symptoms that are generally unaccounted for in an anxiety-related disorder like PTSD. This potentially chronic freeze response may play a role in lower disclosing tendencies separate from avoidance symptoms.

In addition to revising the disclosure-oriented measures used in future research, it will be important to incorporate attachment measures in future studies on this topic. The attachment style from early in life creates an internal schema for later expectations. When confronted at any

point in life with adversity, it is natural to engage the attachment system and proximity-seek for safety. Patterns of interpersonal disclosure presumably will vary by attachment style and earlier response from caregivers to those needs. Thus, a dismissing adult may not readily disclose, while the preoccupied adult may seek out more social support by comparison. This seeking out of social support and tend and befriend response (S. E. Taylor, 2006) might be met with prosocial response or with rejection and hurt. Some next steps would be to include attachment measures to examine whether attachment style moderates the association between negative reactions and disclosure trauma and to qualify which forms of social reaction are more or less traumatic for a given individual based on their attachment history.

It also may be helpful either to modify the Social Reactions Questionnaire (SRQ) to measure social responses to general trauma disclosures or to ask questions that are more specific to the reactions that people have when describing their traumatic disclosure experiences. This, too, would be a fruitful avenue to pursue in future research.

Final Thoughts

I put forward the notion that, despite the well-documented benefits of disclosure, interpersonal disclosures also can be the source of traumatic stress. In certain cases, the level and form of traumatic stress can result in the disclosure being experienced as a new and distinct traumatic event. I refer to these instances as disclosure-induced neo-traumas or DINTs. The current research demonstrated that perceived negative social responses during the disclosure lead to high levels of traumatic stress and disrupt important relationships. These high levels of post-disclosure stress and relationship disruption each contribute to the perception of the disclosure as being a traumatic event of its own accord (i.e., a DINT). Importantly, the findings demonstrate

that these disclosure processes are empirically independent from any traumatic stress symptoms related to the precipitating event.

The current research also demonstrated that perceived positive social responses to disclosure were not uniformly beneficial. Relational processes appeared to benefit from the perception that the disclosure response was positive. Simultaneously, the perception of positive social responses was associated with heightened post-disclosure traumatic stress symptoms. It also is worth noting that participants who did not disclose to anyone at all evidenced the highest levels of post-traumatic stress and general anxiety symptoms and that these symptoms were highly correlated with their concerns about the response they would receive.

Thus, the prospect and process of disclosure appears to have many, sometimes conflicting facets. In some instances, concerns (e.g., about blame or embarrassment) may prompt concealment, and concealment may amplify anxiety and stress symptoms. In other instances, perceived negative responses may stand in stark contrast to the presumption of a supportive and reassuring response, and this aversive expectancy-violation may become a new source of personal and relational stress. In still other instances, apprehension about how others may react might be mirrored during the disclosure and inadvertently confirm implicit fears, resulting in a DINT. This multifaceted nature of the disclosure process, and the propensity for disclosure to have dramatic positive and negative consequences, makes it an especially important area for further research investigation and clinical consideration.

Appendices

Appendix A: Informed Consent

Appendix A.1

Initial Informed Consent Form

SHARING WITH OTHERS SURVEY

My name is Sarah Wolf-Gramzow and I am a doctoral student in the Department of Marriage and Family Therapy at Syracuse University. I am inviting you to participate in a research study. I am interested in learning about the experiences that people have when they share with others about distressing events in their lives. We all have negative or troubling experiences that occur from time to time, and we often tell others about these experiences.

You will be asked to respond to a questionnaire containing different sections. The first section will ask you to identify a past distressing event in your life and rate how much that event currently impacts you. In the next section you will be asked to identify a time in which you told someone about this event and the impact that sharing the event with that person has had on you. There also will be sections that ask for background or demographic information and that contain self-report measures of your current mood and behavioral tendencies. Typically, people are able to complete the questionnaire within 45 minutes.

The only risk to you as a participant is that over the course of completion of the questionnaires, you may feel some discomfort emotionally as questions ask you to remember and report about a distressing event and what it felt like to share this with another person. If you find yourself emotionally upset and would like to talk to someone, there are resources available to you at any time through your University's Counseling Center.

Literature states that sharing vulnerable experiences through writing to be potentially beneficial. During the process of participating, you will be invited to answer some questions and reflect on a previous experience, which has the potential to be helpful long-term. Additionally, this research may serve to benefit future therapy clients, students, and others to help us understand what is most helpful to support those sharing vulnerable experiences with others.

Involvement in the study is voluntary. This means you can choose whether to participate and that you may withdraw from the study at any time without penalty. Also, you are free to omit responses to any specific questions that you do not wish to answer and to continue with the survey if you choose.

If you were directed to this survey by an instructor of one of your college courses, please be aware that your instructor will not be informed about your participation in this survey. Whether or not you complete the survey will have no implications on your grade. If you choose to participate, there will be no way for your instructor (or anyone else) to know your responses or even that you participated.

Please note that all of your responses are anonymous and that there is no way for me or any other member of the research team to link your name or other aspects of your identity with your responses. The data that we collect will contain no personally identifiable information. The

software program that we are using to administer the survey is called Qualtrics and it does not record or store any personally identifiable information.

That said, whenever one works with email or the internet, there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about this research please contact Prof. Linda Stone Fish at 315-443-3024 or flstone@syr.edu

I am 18 years of age or older, and by clicking here I agree to participate in this research study.

Mental Health Resources:

SU Counseling Center, Barnes Center at The Arch, 315-443-8000 (24-hour support)
https://experience.syracuse.edu/bewell/counseling

SUNY-Oswego Counseling Services, 315-312-4416
https://www.oswego.edu/counseling-services

An alternative resource outside the University is the NY State Crisis textline:
text “Got 5” to 741-741 to speak anonymously to someone at any time

Appendix A.2

Informed Consent Form for Snowball Sampling

SHARING WITH OTHERS SURVEY

My name is Sarah Wolf-Gramzow and I am a doctoral student in the Department of Marriage and Family Therapy at Syracuse University. I am inviting you to participate in a research study. I am interested in learning about the experiences that people have when they share with others about distressing events in their lives. We all have negative or troubling experiences that occur from time to time, and we often tell others about these experiences.

You will be asked to respond to a questionnaire containing different sections. The first section will ask you to identify a past distressing event in your life and rate how much that event currently impacts you. In the next section you will be asked to identify a time in which you told someone about this event and the impact that sharing the event with that person has had on you. There also will be sections that ask for background or demographic information and that contain self-report measures of your current mood and behavioral tendencies. Typically, people are able to complete the questionnaire within 45 minutes.

The only risk to you as a participant is that over the course of completion of the questionnaires, you may feel some discomfort emotionally as questions ask you to remember and report about a distressing event and what it felt like to share this with another person. If you find yourself emotionally upset and would like to talk to someone, there are resources available to you at any time through your University's Counseling Center.

Literature states that sharing vulnerable experiences through writing to be potentially beneficial. During the process of participating, you will be invited to answer some questions and reflect on a previous experience, which has the potential to be helpful long-term. Additionally, this research may serve to benefit future therapy clients, students, and others to help us understand what is most helpful to support those sharing vulnerable experiences with others.

Involvement in the study is voluntary. This means you can choose whether to participate and that you may withdraw from the study at any time without penalty. Also, you are free to omit responses to any specific questions that you do not wish to answer and to continue with the survey if you choose.

- If you were directed to this survey by an instructor of one of your college courses, please be aware that your instructor will not be informed about your participation in this survey. Whether or not you complete the survey will have no implications on your grade. If you choose to participate, there will be no way for your instructor (or anyone else) to know your responses or even that you participated.
- If you received an invitation to participate in this research from a friend, family member, or colleague, please be aware that no one (including the person who sent you the survey invitation) will be informed about whether or not you complete this survey.

Please note that all of your responses are anonymous and that there is no way for me or any other member of the research team to link your name or other aspects of your identity with your responses. The data that we collect will contain no personally identifiable information. The software program that we are using to administer the survey is called Qualtrics and it does not record or store any personally identifiable information.

That said, whenever one works with email or the internet, there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about this research please contact Prof. Linda Stone Fish at 315-443-3024 or flstone@syr.edu

I am 18 years of age or older, and by clicking here I agree to participate in this research study.

Mental Health Resources:

SU Counseling Center, Barnes Center at The Arch, 315-443-8000 (24-hour support)
https://experience.syracuse.edu/bewell/counseling

SUNY-Oswego Counseling Services, 315-312-4416
https://www.oswego.edu/counseling-services

An alternative resource outside the University is the NY State Crisis textline:
text “Got 5” to 741-741 to speak anonymously to someone at any time

If you reside outside the state of New York, a host of mental health resources are available:
https://www.apa.org/topics/crisis/hotlines

Appendix A.3

Informed Consent Form with Raffle

SHARING WITH OTHERS SURVEY

My name is Sarh Wolf-Gramzow and I am a doctoral student in the Department of Marriage and Family Therapy at Syracuse University. I am inviting you to participate in a research study. I am interested in learning about the experiences that people have when they share with others about distressing events in their lives. We all have negative or troubling experiences that occur from time to time, and we often tell others about these experiences.

You will be asked to respond to a questionnaire containing different sections. The first section will ask you to identify a past distressing event in your life and rate how much that event currently impacts you. In the next section you will be asked to identify a time in which you told someone about this event and the impact that sharing the event with that person has had on you. There also will be sections that ask for background or demographic information and that contain self-report measures of your current mood and behavioral tendencies. Typically, people are able to complete the questionnaire within 45 minutes.

At the end of the survey you will have the opportunity to be entered into a raffle to win one of three gift cards. At the end of data collection in April, we will conduct a raffle. Each of the three winners will be able to choose their preferred vendor (e.g., Amazon, Target, Starbucks, etc.).
• The "winner" will get a gift card worth $100
• "Second place" will get a gift card worth $75
• "Third place" will get a gift card worth $50

The only risk to you as a participant is that over the course of completion of the questionnaires, you may feel some discomfort emotionally as questions ask you to remember and report about a distressing event and what it felt like to share this with another person. If you find yourself emotionally upset and would like to talk to someone, there are resources available to you at any time through your University's Counseling Center.

Literature states that sharing vulnerable experiences through writing to be potentially beneficial. During the process of participating, you will be invited to answer some questions and reflect on a previous experience, which has the potential to be helpful long-term. Additionally, this research may serve to benefit future therapy clients, students, and others to help us understand what is most helpful to support those sharing vulnerable experiences with others.

Involvement in the study is voluntary. This means you can choose whether to participate and that you may withdraw from the study at any time without penalty. Also, you are free to omit responses to any specific questions that you do not wish to answer and to continue with the survey if you choose.

- If you were directed to this survey by an instructor of one of your college courses, please be aware that your instructor will not be informed about your participation in this survey.

Whether or not you complete the survey will have no implications on your grade. If you choose to participate, there will be no way for your instructor (or anyone else) to know your responses or even that you participated.

- If you received an invitation to participate in this research from a friend, family member, or colleague, please be aware that no one (including the person who sent you the survey invitation) will be informed about whether or not you complete this survey.

Please note that all of your responses are anonymous and that there is no way for me or any other member of the research team to link your name or other aspects of your identity with your responses. The data that we collect will contain no personally identifiable information. The software program that we are using to administer the survey is called Qualtrics and it does not record or store any personally identifiable information.

That said, whenever one works with email or the internet, there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about this research please contact Prof. Linda Stone Fish at 315-443-3024 or flstone@syr.edu

I am 18 years of age or older, and by clicking here I agree to participate in this research study.

Mental Health Resources:

SU Counseling Center, Barnes Center at The Arch, 315-443-8000 (24-hour support)
https://experience.syracuse.edu/bewell/counseling

SUNY-Oswego Counseling Services, 315-312-4416
https://www.oswego.edu/counseling-services

An alternative resource outside the University is the NY State Crisis textline:
text “Got 5” to 741-741 to speak anonymously to someone at any time

If you reside outside the state of New York, a host of mental health resources are available:
https://www.apa.org/topics/crisis/hotlines

Appendix B: Survey Measures

Appendix B.1

B.1 Demographic Information

What is your age (in years)?

What gender do you identify as?
- Female (1)
- Male (2)
- Non-binary / third gender (3)
- Prefer not to say (4)
- Other (5)

Where do you currently live?
- In the US (1)
- Outside the US (2)

What is your Zip or Postal Code?

What is your current relationship status?
- Committed long-term relationship (1)
- Engaged (2)
- Married (3)
- Single (never been married) (4)
- Single (divorced or separated) (5)
- Widowed (6)
- Other (7)

What is the highest level of education you have completed?
- Some high school or less (1)
- High school diploma or GED (2)
- Some college, but no degree (3)
- Associates or technical degree (4)
- Bachelor's degree (5)
- Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.) (6)
- Prefer not to say (7)

What is your current employment status?
- Employed full-time (1)
- Employed part-time (2)
- Seeking opportunities (3)
- Student (4)
- Retired (5)
- Other (6)

What is your race or ethnicity?
- Asian or Asian-American (1)
- Black or African-American (2)
- Latino/a or Hispanic (3)
- Native American / Native Hawaiian / Pacific Islander (4)
- White or Caucasian (5)
- Other (6)
- Prefer not to say (7)

What is your religious affiliation (if any)?
- Buddhist (1)
- Christian (2)
- Hindu (3)
- Jewish (4)
- Muslim (5)
- Sikh (6)
- Spiritual (7)
- None (8)
- Other (9)

Appendix
B.2: PCL-5

PCL-5 with Criterion A

Instructions: This questionnaire asks about problems you may have had after a very stressful experience involving actual or threatened death, serious injury, or sexual violence. It could be something that happened to you directly, something you witnessed, or something you learned happened to a close family member or close friend. Some examples are a serious accident; fire; disaster such as a hurricane, tornado, or earthquake; physical or sexual attack or abuse; war; homicide; or suicide.

First, please answer a few questions about your worst event, which for this questionnaire means the event that currently bothers you the most. This could be one of the examples above or some other very stressful experience. Also, it could be a single event (for example, a car crash) or multiple similar events (for example, multiple stressful events in a war-zone or repeated sexual abuse).

Briefly identify the worst event (if you feel comfortable doing so):

How old were you at the time of the event? _____ years (please estimate or give an age range)

How long ago did it happen? _____ (please estimate if you are not sure)

Did it involve actual or threatened death, serious injury, or sexual violence?

_____ Yes

_____ No

How did you experience it?

_____ It happened to me directly

_____ I witnessed it

_____ I learned about it happening to a close family member or close friend

_____ I was repeatedly exposed to details about it as part of my job (for example, paramedic, police, military, or other first responder)

_____ Other, please describe

If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

_____ Accident or violence

_____ Natural causes

_____ Not applicable (the event did not involve the death of a close family member or close friend)

Second, below is a list of problems that people sometimes have in response to a very stressful experience. Keeping your worst event in mind, please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being "superalert" or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Appendix
B.3: IDE

Identifying a Disclosure Experience (IDE)

Outside of this research study, have you ever told anyone else about your worst event?

___ No.
[If "No," participants were asked the following and then advanced to the BDI, BAI, and DDI scales]

1. Can you briefly describe why you have not shared this event with anyone else?

2. To what degree do you agree with each of the following reasons for why you have not told anyone about this event?

1	–	2	–	3	–	4	–	5
Strongly Disagree								Strongly Agree

I am afraid that if I tell someone about the event:

1. ____ It will make me feel worse
2. ____ It will be embarrassing
3. ____ I will feel ashamed about it
4. ____ I will feel guilty about it
5. ____ They will blame me for what happened
6. ____ It will damage my relationship with them
7. ____ They will think less of me
8. ____ They will not be supportive
9. ____ I will get in trouble
10. ____ Someone else who was involved in the event might get in trouble
11. ____ It might change the way they think about someone else who was involved in the event
12. ____ They will think that I am making too big a deal about it

___ Yes.
Approximately how many people have you told about this event? _____
[If "Yes," participants were advanced to the Disclosure Description that begins on the next page.]

Identifying a Disclosure Experience (IDE - continued)

Disclosure Description

Telling other people about distressing events that have occurred in one's life can be difficult at times. Of the times that you have told someone about this specific event, were there times in which the process was especially difficult or the person's reaction made you feel bad or otherwise uncomfortable?

___ No.

Please think of a specific time in which you did tell someone about this event, even though this disclosure may not have been a difficult experience. Briefly describe this ***disclosure experience***:

___ Yes.

Approximately how many times have you had a negative experience when you disclosed this event to someone? _____

Please think of one specific time in which you told someone about this event and the disclosure itself was distressing to you. Even though you may have had several difficult experiences telling someone about this event, please focus on one specific disclosure. Briefly describe this ***disclosure experience***:

In the ***disclosure experience*** you just described, who was the person you told about the distressing event? Briefly describe who they were and their relationship to you:

How old were you at the time you told this person about the distressing event? _____ years

How long had you known this person at the time you disclosed the event? _____

How close was your relationship with this person at the time you disclosed the event?

1 – 2 – 3 – 4 – 5 – 6 - 7		
Not at All	Somewhat Close	Very Close

How close was your relationship with this person after you disclosed the event?

1 – 2 – 3 – 4 – 5 – 6 - 7		
Not at All	Somewhat Close	Very Close

Appendix
B.4: PCL-D

PCL-5 Modified to Focus on Disclosure Experience
(PCL-D)

Below is a list of problems that people sometimes have in response to disclosing previous experiences of trauma. Think back to the same time that you just described in which you told someone about your worst event. In the questions below, this is referred to as the **disclosure experience**. Please read each problem below and then circle one of the numbers corresponding to how much you were bothered by that problem **as a result of the disclosure experience**.

Please focus on the **disclosure experience** of telling the person about the distressing event, rather than the original distressing event itself.

In the past month, how much were you bothered by:	**Not at all**	**A little bit**	**Moderately**	**Quite a bit**	**Extremely**
1. Repeated, disturbing, and unwanted memories of the disclosure experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the disclosure experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the disclosure experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the disclosure experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the disclosure experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the disclosure experience?	0	1	2	3	4
7. Avoiding external reminders of the disclosure experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the disclosure experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the	0	1	2	3	4

world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?					
10. Blaming yourself or someone else for the disclosure experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being “superalert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4
21. Any other issue related to the disclosure experience that you would like to describe here:	0	1	2	3	4

Appendix
B.5: SRQ

Social Reactions Questionnaire (SRQ)
(Ullman, 2000)

Thinking about the specific disclosure experience that you just described and rated, to what degree did the person you told about your worst event have the following reactions?

Not at all	A little bit	Moderately	Quite a bit	Extremely
1	2	3	4	5

_____ 1. Told you that you were not to blame
_____ 2. Told you that you did not do anything wrong
_____ 3. Told you it was not your fault
_____ 4. Reassured you that you are a good person
_____ 5. Held you or told you that you are loved
_____ 6. Comforted you by telling you it would be all right or by holding you
_____ 7. Spent time with you
_____ 8. Listened to your feelings
_____ 9. Showed understanding of your experience
_____ 10. Reframed the experience as a clear case of victimization
_____ 11. Saw your side of things and did not make judgments
_____ 12. Was able to really accept your account of your experience
_____ 13. Told you he/she felt sorry for you
_____ 14. Believed your account of what happened
_____ 15. Seemed to understand how you were feeling
_____ 16. Acted as if you were damaged goods or somehow different now
_____ 17. Pulled away from you
_____ 18. Treated you differently in some way than before you told him/her that made you uncomfortable
_____ 19. Avoided talking to you or spending time with you
_____ 20. Focused on his/her own needs and neglected yours
_____ 21. Said he/she feels you're tainted by this experience
_____ 22. Told you to stop talking about it
_____ 23. Told you to stop thinking about it
_____ 24. Tried to discourage you from talking about the experience
_____ 25. Told you to go on with your life
_____ 26. Encouraged you to keep the experience a secret
_____ 27. Distracted you with other things
_____ 28. Made decisions or did things for you
_____ 29. Tried to take control of what you did/decisions you made
_____ 30. Said he/she knew how you felt when he/she really did not
_____ 31. Told others about your experience without your permission
_____ 32. Treated you as if you were a child or somehow incompetent

____ 33. Minimized the importance or seriousness of your experience
____ 34. Made you feel like you didn't know how to take care of yourself
____ 35. Helped you get medical care
____ 36. Provided information and discussed options
____ 37. Helped you get information of any kind about coping with the experience
____ 38. Took you to the police
____ 39. Encouraged you to seek counseling
____ 40. Told you that you could have done more to prevent this experience from occurring
____ 41. Told you that you were irresponsible or not cautious enough
____ 42. Told you that you were to blame or shameful because of this experience
____ 43. Expressed so much anger at the perpetrator that you had to calm him/her down
____ 44. Said he/she feels personally wronged by your experience
____ 45. Has been so upset that he/she needed reassurance from you
____ 46. Wanted to seek revenge on the perpetrator

Appendix
B.6: DINTS

Disclosure-Induced Neo-Trauma Scale
(DINTS)

Thinking about the specific disclosure experience that you just described and rated, to what degree do you agree with each of the following statements?

1 – 2 – 3 – 4 – 5	
Strongly Disagree	Strongly Agree

This disclosure experience, in and of itself:

____ 1. was a traumatic event
____ 2. caused me to feel so helpless and overwhelmed that it stands out as a unique and distressing event in my life
____ 3. resulted in significant emotional distress not directly related to the original stressful event
____ 4. resulted in significant psychological distress not directly related to the original stressful event
____ 5. resulted in significant physical stress symptoms not directly related to the original stressful event
____ 6. was worse long-term for me than the original stressful event

Please use the scale below to describe the impact that the disclosure experience had on your relationship with the person you told about the distressing event.

1 – 2 – 3 – 4 – 5	
Strongly Disagree	Strongly Agree

____ 1. I regret disclosing because it caused pain and ruptured the relationship
____ 2. After disclosing, I felt so betrayed by how they responded that I had to end the relationship
____ 3. I never spoke to this person about anything vulnerable ever again because it hurt too much
____ 4. The relationship was never the same after the disclosure
____ 5. A lot of trust was lost during and after the disclosure
.

Please describe the impact that this disclosure experience has had on you and your relationships (including the person to whom you disclosed). In writing your statement, consider the effects this disclosure experience has had on your beliefs about yourself, others, and the world in the following area: safety, trust, power/control, esteem, and intimacy:

Appendix
B.7: DDI

Distress Disclosure Index (DDI)
Kahn and Hessling (2001)

Please use the scale below to rate the degree to which you typically talk to other people about issues in your life.

1 – 2 – 3 – 4 – 5
Strongly Disagree — Strongly Agree

_____ 1. When I feel upset, I usually confide in my friends.
_____ 2. I prefer not to talk about my problems.
_____ 3. When something unpleasant happens to me, I often look for someone to talk to.
_____ 4. I typically don't discuss things that upset me.
_____ 5.When I feel depressed or sad, I tend to keep those feelings to myself.
_____ 6. I try to find people to talk with about my problems.
_____ 7. When I am in a bad mood, I talk about it with my friends.
_____ 8. If I have a bad day, the last thing I want to do is talk about it.
_____ 9. I rarely look for people to talk with when I am having a problem.
_____ 10. When I'm distressed I don't tell anyone.
_____ 11. I usually seek out someone to talk to when I am in a bad mood.
_____ 12. I am willing to tell others my distressing thoughts.

Appendix
B.8: BDI

Beck Depression Inventory (BDI)
(Beck, 1967; Beckham & Leber, 1985)

Below are common experiences of depression. Please circle the number corresponding to the item that matches your experiences in THE PAST MONTH.

1.	0	I do not feel sad.
	1	I feel sad.
	2	I am sad all the time and I can't snap out of it.
	3	I am so sad and unhappy that I can't stand it.
2.	0	I am not particularly discouraged about the future.
	1	I feel discouraged about the future.
	2	I feel I have nothing to look forward to.
	3	I feel the future is hopeless and that things cannot improve.
3.	0	I do not feel like a failure.
	1	I feel I have failed more than the average person.
	2	As I look back on my life, all I can see is a lot of failures.
	3	I feel I am a complete failure as a person.
4.	0	I get as much satisfaction out of things as I used to.
	1	I don't enjoy things the way I used to.
	2	I don't get real satisfaction out of anything anymore.
	3	I am dissatisfied or bored with everything.
5.	0	I don't feel particularly guilty.
	1	I feel guilty a good part of the time.
	2	I feel quite guilty most of the time.
	3	I feel guilty all of the time.
6.	0	I don't feel I am being punished.
	1	I feel I may be punished.
	2	I expect to be punished.
	3	I feel I am being punished.
7.	0	I don't feel disappointed in myself.
	1	I am disappointed in myself.
	2	I am disgusted with myself.
	3	I hate myself.
8.	0	I don't feel I am any worse than anybody else.
	1	I am critical of myself for my weaknesses or mistakes.

	2	I blame myself all the time for my faults.
	3	I blame myself for everything bad that happens.
9.	0	I don't have any thoughts of killing myself.
	1	I have thoughts of killing myself, but I would not carry them out.
	2	I would like to kill myself.
	3	I would kill myself if I had the chance.
10.	0	I don't cry any more than usual.
	1	I cry more now than I used to.
	2	I cry all the time now.
	3	I used to be able to cry, but now I can't cry even though I want to.
11.	0	I am no more irritated by things than I ever was.
	1	I am slightly more irritated now than usual.
	2	I am quite annoyed or irritated a good deal of the time.
	3	I feel irritated all the time.
12.	0	I have not lost interest in other people.
	1	I am less interested in other people than I used to be.
	2	I have lost most of my interest in other people.
	3	I have lost all my interest in other people.
13.	0	I make decisions about as well as I ever could.
	1	I put off making decisions more than I used to.
	2	I have greater difficulty in making decisions more than I used to.
	3	I can't make decisions at all anymore.
14	0	I don't feel that I look any worse than I used to.
	1	I am worried that I am looking old or unattractive.
	2	I feel there are permanent changes in my appearance that make me look unattractive.
	3	I believe that I look ugly.
15	0	I can work about as well as before.
	1	It takes an extra effort to get started at doing something.
	2	I have to push myself very hard to do anything.
	3	I can't do any work at all.
16	0	I can sleep as well as usual.
	1	I don't sleep as well as I used to.
	2	I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
	3	I wake up several hours earlier than I used to and cannot get back to sleep.
17	0	I don't get more tired than usual.
	1	I get tired more easily than I used to.

	2	I get tired from doing almost anything.
	3	I am too tired to do anything.
18	0	My appetite is no worse than usual.
	1	My appetite is not as good as it used to be.
	2	My appetite is much worse now.
	3	I have no appetite at all anymore.
19	0	I haven't lost much weight, if any, lately.
	1	I have lost more than 5 pounds.
	2	I have lost more than 10 pounds.
	3	I have lost more than 15 pounds.
20	0	I am no more worried about my health than usual.
	1	I am worried about physical problems like aches, pains, upset stomach, or constipation.
	2	I am very worried about physical problems and it's hard to think of much else.
	3	I am so worried about my physical problems that I cannot think of anything else.
21	0	I have not noticed any recent change in my interest in sex.
	1	I am less interested in sex than I used to be.
	2	I have almost no interest in sex.
	3	I have lost interest in sex completely.

Appendix
B.9: BAI

Beck Anxiety Inventory (BAI)
(Beck, Epstein, Brown, & Steer, 1988)

Below is a list of common symptoms of anxiety. Please carefully read each item. Indicate how much you have been bothered by that symptom during THE PAST MONTH, including today, by circling the number in the corresponding space next to each symptom.

0	Not at all
1	Mildly, but it didn't bother me much
2	Moderately – It wasn't pleasant at times
3	Severely – It bothered me a lot

1. Numbness or tingling
2. Feeling hot
3. Wobbliness in legs
4. Unable to relax
5. Fear of worst happening
6. Dizzy or lightheaded
7. Heart pounding / racing
8. Unsteady
9. Terrified or afraid
10. Nervous
11. Feeling of choking
12. Hands trembling
13. Shaky / unsteady
14. Fear of losing control
15. Difficulty in breathing
16. Fear of dying
17. Scared
18. Indigestion
19. Faint / lightheaded
20. Face flushed
21. Hot / cold sweats

Appendix C: Debriefing

Thank you for participating in our research. We greatly appreciate your time and willingness to help us with our project.

The purpose of this study is to better understand the experience of sharing something vulnerable. The impact of this can be very promotive of healing if the social response is supportive. However, if the social response is negative, this can be very harmful both to the person having disclosed and the relationship with long-term implications. Learning more about this process can help us to better support and facilitate more positive responses in clinical, academic, and various other settings.

Your participation will be very helpful to others who may have had difficult sharing experiences. Thank you!

As a reminder, your responses are completely anonymous and no one, including us, will be able to link you with your participation in this study.

If you have any questions, concerns or complaints about this research please contact Prof. Linda Stone Fish at 315-443-3024 or flstone@syr.edu

Mental Health Resources:

SU Counseling Center, Barnes Center at The Arch, 315-443-8000 (24-hour support)
https://experience.syracuse.edu/bewell/counseling

SUNY-Oswego Counseling Services, 315-312-4416
https://www.oswego.edu/counseling-services

An alternative resource outside the University is the NY State Crisis textline:
text “Got 5” to 741-741 to speak anonymously to someone at any time

Tables

Table 1. *Participant Demographic Information*

Age	*M*	*SD*	Median	Min	Max	Missing
	35.13	14.49	30	19	84	1

Gender	*n*	%
Female	104	62.3
Male	55	32.9
Nonbinary	5	3.0
Missing	3	1.8

Relationship Status	*n*	%
Committed	26	15.6
Engaged	10	6.0
Married	68	40.7
Single	28	16.8
Divorced	10	6.0
Widowed	0	0.0
Other	1	0.6
Missing	24	14.4

Employment Status	*n*	%
Full-time	72	43.1
Part-time	42	25.1
Seeking	17	10.2
Student	31	18.6
Retired	11	6.6
Other	3	1.8

Race /Ethnicity	*n*	%
Asian	15	9.0
Black	18	10.8
Latinx	13	7.8
Native American	10	6.0
White	102	61.1
Other	2	1.2
Prefer not to say	6	3.6

Education	*n*	%
Some H.S.	0	0.0
High School	8	4.8
Some College	22	13.2
Associates	13	7.8
Bachelors	47	28.1
Graduate	54	32.3
Missing	23	13.8

Religion	*n*	%		*n*	%
Buddhist	2	1.2	Sikh	4	2.4
Christian	56	33.5	Spiritual	18	10.8
Hindu	7	4.2	None	38	22.8
Jewish	10	6.0	Other	1	0.6
Muslim	7	4.2	Missing	24	14.4

Note. Background and demographic information is based on self-identification ($N = 167$)

Table 2. *Trauma Taxonomy Groupings*

Taxonomy	n	Valid %
DSM-5 Criterion A[1]		
Yes	106	63.9
No	60	36.1
Missing	1	
Happened to Participant[2]		
Yes	96	57.5
No	71	42.5
Death of Friend or Relative[3]		
Violence or Accident	37	22.2
Natural Causes	32	19.2
Not Applicable	98	58.7
Sexual Incident[4]		
Yes, involving participant	16	12.6
Yes, involving someone else	3	2.4
No	108	85.0
Interpersonal Incident[5]		
Yes	84	74.0
No	32	26.0

[1] Self-report: "Did it involve actual or threatened death, serious injury, or sexual violence?"
[2] Self-report: "It happened to me directly"
[3] Self-report: "If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?"
[4] Judge's code: Yes = anything described as a sexual boundary violation
[5] Judge's code: Yes = an attachment disruption or an interpersonal behavior of any kind

Table 3. *Key Study Variables*

Variable Name	Measure	Type	Description
Post-Traumatic Stress	PCL-5	Continuous	Level of posttraumatic stress resulting from the distressing event based on the 20 PCL-5 items
Trauma Taxonomy Groupings	PCL-5	Categorical	i) Meets DSM-5 qualifying event criteria or not; ii) Happened directly to participant or not; iii) Involved death of close friend/relative or not; iv) Sexual or Non-Sexual incident; v) Interpersonal or Non-Interpersonal incident
Post-Disclosure Stress	PCL-D	Continuous	Level of posttraumatic stress resulting from the disclosure experience based on the 20 items in the PCL-D
Disclosure Trauma	DINTS	Continuous	Degree to which the disclosure itself was traumatic based on the first six items of the DINTS measure
Relationship Disruption	DINTS	Continuous	Degree to which the disclosure adversely impacted the quality of the relationship between the discloser and disclosee (based on last five items of the DINTS)
Negative Social Response	SRQ	Continuous	Discloser's perception of the degree of negative response by the disclosee during the disclosure (combination of 26 "negative" behaviors)
Positive Social Response	SRQ	Continuous	Discloser's perception of the degree of positive response by the disclosee during the disclosure (combination of 20 "positive" behaviors)
General Distress Disclosure	DDI	Continuous	General tendency to disclose versus conceal distress (total score from the DDI, with higher values indicating a higher tendency to disclose)
Depression Symptoms	BDI	Continuous	Level of depressive symptomology based on the total BDI score
Anxiety Symptoms	BAI	Continuous	Level of anxiety symptomology based on the total BAI score

Table 4. *Prevalence of DINT in this Sample*

Response	Frequency	Percent	Cumulative %
Strongly Disagree	26	22.2	22.2
Somewhat Disagree	11	9.4	31.6
Neither Agree nor Disagree	27	23.1	54.7
Somewhat Agree	35	29.9	84.6
Strongly Agree	18	15.4	100.0
TOTAL	117	100.0	

Note. Frequency of responses to the first item of the disclosure-trauma scale of the DINTS measure ("The disclosure experience, in and of itself, was a traumatic experience")

Table 5. *Descriptive Statistics for the Disclosure-Trauma Scale*

The disclosure experience, in and of itself…	**M**	**SD**	**Skew**	**Min-Max**
1…was a traumatic event	3.03	1.37	-.284	1-5
2….caused me to feel so helpless and overwhelmed that it stands out as a unique and distressing event in my life	2.57	1.50	.211	1-5
3…resulted in significant *emotional distress* not directly related to the original stressful event	2.77	1.42	-.065	1-5
4…resulted in significant *psychological distress* not directly related to the original stressful event	2.53	1.37	.174	1-5
5…resulted in significant *physical stress* symptoms not directly related to the original stressful event	2.48	1.41	.317	1-5
6…was worse long-term for me than the original stressful event	2.03	1.29	.762	1-5

Note. Responses on a 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) Likert scale ($N = 115$)

Table 6. *Eigenvalues from Factor Analysis of Disclosure-Trauma Scale*

Factor	Eigenvalues	% of Variance	Cumulative %
1	4.170	69.50	69.50
2	.542	9.03	78.53
3	.532	8.87	87.40
4	.312	5.19	92.60
5	.246	4.10	96.70
6	.198	3.31	100.00

Note. Eigenvalues based on maximum-likelihood estimates ($N = 115$).

Table 7. *Factor Loadings for Disclosure-Trauma Scale*

The disclosure experience, in and of itself…	**Factor loading**[1]	**α if removed**[2]
1…was a traumatic event	.707	.905
2….caused me to feel so helpless and overwhelmed that it stands out as a unique and distressing event in my life	.801	.892
3…resulted in significant *emotional distress* not directly related to the original stressful event	.841	.890
4…resulted in significant *psychological distress* not directly related to the original stressful event	.863	.890
5…resulted in significant *physical stress* symptoms not directly related to the original stressful event	.850	.891
6…was worse long-term for me than the original stressful event	.704	.906

Note. (N = 115).
[1] Factor loadings from a one-factor maximum-likelihood solution
[2] Impact on Cronbach's alpha estimate if item removed from internal consistency estimate

Table 8. *Descriptive Statistics for Disclosure-Trauma Scale*

	M	*SD*	*N*	*t*	*df*	*p*
Total Sample	2.60	1.18	117			
Gender				-0.98	109	.331
Female	2.53	1.19	76			
Male	2.76	1.07	35			
Difficult Disclosure				1.33	115	.185
Yes	2.73	1.03	65			
No	2.44	1.33	52			
DSM5 Criterion A				1.93	115	.056
Yes	2.79	1.18	79			
No	2.38	1.13	38			
Happened to Participant				-0.16	115	.874
Yes	2.58	1.18	75			
No	2.62	1.18	42			
Death of Friend/Relative				1.23	115	.221
Yes	2.79	1.05	39			
No	2.50	1.23	78			
Sexual Trauma				0.72	96	.471
Yes	2.79	1.32	15			
No	2.54	1.19	83			
Interpersonal Trauma				-1.77	96	.081
Yes	2.45	1.20	71			
No	2.93	1.17	27			

Note. These between-groups *t*-tests assumed equal variances. There was essentially no difference in these results when examining *t*-tests without assumption of equal variances.

Table 9. *Descriptive Statistics for Key Variables*

Variable (Measure)	*M*	*SD*	*N*	Skew	Min-Max	Cronbach's α
Disclosure Trauma (DINTS)	2.60	1.18	117	-.017	1.0-5.0	.91
Post-Traumatic Stress (PCL-5)	31.03	18.59	167	-.027	0-68	.95
Post-Disclosure Stress (PCL-D)	17.33	19.78	119	.876	0-61	.98
Relationship Disruption (DINTS)	2.20	1.25	116	.515	1.0-5.0	.92
Negative Social Response (SRQ)	1.88	0.92	122	.885	1.0-4.15	.96
Positive Social Response (SRQ)	2.78	0.99	122	-.241	1.0-4.55	.95
Depression Symptoms (BDI)	15.41	11.57	145	.243	0-38	.94
Anxiety Symptoms (BAI)	21.19	15.37	144	.221	0-54	.96
General Distress Disclosure (DDI)	3.20	0.79	165	.203	1.17-5.0	.90

Table 10. *Correlations among Key Study Variables*

Variable (Measure)	*Disclosure Trauma (DINTS)*	*Post-Traumatic Stress*	*Post-Disclosure Stress*	Relationship Disruption	Negative Social Response
Post-Traumatic Stress (PCL-5)	.37***	--			
Post-Disclosure Stress (PCL-D)	.60***	.67***	--		
Relationship Disruption (DINTS)	.57***	.29**	.60***	--	
Negative Social Response (SRQ)	.57***	.53***	.81***	.77***	--
Positive Social Response (SRQ)	.01	.35***	.24*	-.33***	.04

Note. Pearson correlation coefficients are reported here and throughout the document. There were no sizable changes in the magnitude of these coefficients when examining Kendall's tau, a non-parametric procedure that is appropriate for the response scales used in these measures (N = 115)

*$p < .05$; **$p < .01$; ***$p < .001$

Table 11. *DINT Predicted by PCL-D and PCL-5*

Variable (Measure)	*b*	*SE*	95% CI for *b*		*β*	*Model* R^2
			LL	UL		
Outcome: Disclosure Trauma (DINTS)						.36***
Constant	2.05	.174	1.70	2.39		
Post-Traumatic Stress (PCL-5)	-.004	.007	-.018	.009	-.068	
Post-Disclosure Stress (PCL-D)	.038	.006	.026	.049	.645***	

Note. Multiple regression results predicting disclosure trauma from post-disclosure stress due to the disclosure, controlling for post-traumatic stress due to the originating event. Only post-disclosure stress was a significant predictor of disclosure trauma. (N = 115)

***p < .001

Table 12. *Correlations among Key Study Variables and Covariates*

Variable (Measure)	*Depression Symptoms (BDI)*	*Anxiety Symptoms (BAI)*	*General Distress Disclosure (DDI)*
Disclosure Trauma (DINTS)	.39***	.46***	-.12
Post-Traumatic Stress (PCL-5)	.60***	.75***	-.30***
Post-Disclosure Stress (PCL-D)	.64***	.81***	-.31***
Relationship Disruption (DINTS)	.50***	.47***	-.21*
Negative Social Response (SRQ)	.53***	.67***	-.20*
Positive Social Response (SRQ)	-.01	.21*	.13
Depression Symptoms (BDI)	--		
Anxiety Symptoms (BAI)	.76***	--	
General Distress Disclosure (DDI)	-.45***	-.30**	--

Note. ($N = 104$)
*$p < .05$; **$p < .01$; ***$p < .001$

Table 13. *DINT Predicted by PCL-D, BDI, and BAI*

Variable (Measure)	*b*	*SE*	95% CI for *b*		*β*	R^2
			LL	UL		
Outcome: Disclosure Trauma (DINTS)						.37***
Constant	2.00	.154	1.70	2.31		
Depression Symptoms (BDI)	.005	.012	-.018	.028	.054	
Anxiety Symptoms (BAI)	-.011	.013	-.036	.014	-.136	
Post-Disclosure Stress (PCL-D)	.040	.008	.025	.056	.681***	

Note. Multiple regression results predicting disclosure trauma from post-disclosure stress due to the disclosure, controlling for general anxiety and depression symptoms. Only post-disclosure stress was a significant predictor of disclosure trauma. ($N = 107$)

***$p < .001$

Table 14. *Negative Social Response Mediation Model*

				95% CI for Coeff				*Model*
		Coeff	***SE***	***LL***	**UL**	***β***	***p***	***R*²**
Outcome: Post-Disclosure Stress								.66***
Predictors:								
Constant		-15.44	2.46	-20.32	-10.56			
Negative Social Reaction	a_1	17.36	1.16	15.05	19.66	.814	<.001	
Outcome: Relationship Disruption								.60***
Predictors:								
Constant		0.23	0.17	-0.10	0.57			
Negative Social Reaction	a_2	1.03	0.08	0.88	1.19	.774	<.001	
Outcome: Disclosure Trauma								.43***
Predictors:								
Constant		1.56	.219	1.12	1.99			
Post-Disclosure Stress	b_1	.026	.007	.012	.040	.443	<.001	
Relationship Disruption	b_2	.346	.105	.137	.555	.372	.001	
Negative Social Reaction	c'	-.102	.194	-.486	.281	-.082	.598	

Note. Regression coefficients from the PROCESS macro testing the parallel multiple mediator model depicted in Figure 9 ($N = 115$)
***$p < .001$

Table 15. *Negative Social Response Predicted by PCL-D and PCL-5*

Variable (Measure)	*b*	*SE*	95% CI for *b*		*β*	*Model* R^2
			LL	UL		
Outcome: Negative Social Response (SRQ)						.66***
Constant	1.27	.100	1.07	1.47		
Post-Traumatic Stress (PCL-5)	-.002	.004	-.010	.006	-.040	
Post-Disclosure Stress (PCL-D)	.039	.003	.033	.046	.841***	

Note. Multiple regression results predicting perceived negative social response from post-disclosure stress due to the disclosure, controlling for post-traumatic stress due to the originating event. Only post-disclosure stress was a significant predictor of perceived negative social response. ($N = 119$)

***$p < .001$

Table 16. *Negative Social Response Predicted by PCL-D, Depression, and Anxiety*

Variable (Measure)	*b*	*SE*	95% CI for *b*		*β*	*Model* R^2
			LL	UL		
Outcome: Negative Social Response (SRQ)						.64***
Constant	1.21	.091	1.03	1.39		
Depression Symptoms (BDI)	.001	.007	-.013	.014	.009	
Anxiety Symptoms (BAI)	.003	.007	-.012	.018	.045	
Post-Disclosure Stress (PCL-D)	.035	.005	.026	.044	.762***	

Note. Multiple regression results predicting perceived negative social response from post-disclosure stress due to the disclosure, controlling for general anxiety and depression symptoms. Only post-disclosure stress was a significant predictor of perceived negative social response. (*N* = 114)

***p < .001

Table 17. *Relationship Disruption Predicted by Negative SRQ, PCL-5, BDI, and BAI*

Variable (Measure)	*b*	*SE*	95% CI for *b*		*β*	*Model* R^2
			LL	UL		
Outcome: Relationship Disruption (DINTS)						.67***
Constant	.238	.178	-.115	.591		
Post-Traumatic Stress (PCL-5)	-.013	.006	-.025	-.001	-.185*	
Depression Symptoms (BDI)	.033	.009	.014	.051	.309***	
Anxiety Symptoms (BAI)	-.016	.010	-.036	.004	-.185	
Negative Social Response (SRQ)	1.13	.102	.928	1.34	.835***	

Note. Multiple regression results predicting relationship disruption from perceived negative social response, controlling for post-traumatic stress due to the originating event and general depression and anxiety symptoms. Negative social response remained a significant predictor of relationship disruption ($N = 115$)
*$p < .05$; ***$p < .001$

Table 18. *Moderation Model*

				95% CI for Coeff			*Model*
		Coeff	***SE***	***LL***	**UL**	***p***	***R*²**
Outcome: Disclosure Trauma							.37***
Predictors:							
Constant		2.77	.105	2.56	2.98		
Post-Traumatic Stress (*X*)	b_1	.004	.006	-.008	.017	.478	
Negative Social Response (*M*)	b_2	.812	.133	.548	1.076	<.001	
$X \times M$	b_3	-.017	.006	-.029	-.005	.005	

Note. Regression coefficients from the PROCESS macro testing the moderation model depicted in Figure 10. The significant $X \times M$ interaction effect indicates that the effect of post-traumatic stress on disclosure trauma varies as a function of the level of perceived negative social response. This interaction pattern is displayed in Figure 11 ($N = 115$)

***p < .001

Table 19. *Positive Social Response Mediation Model*

				95% CI for Coeff				*Model*
		Coeff	***SE***	***LL***	**UL**	***β***	***p***	***R²***
Outcome: Post-Disclosure Stress								.06*
Predictors:								
Constant		4.47	5.41	-6.24	-10.56			
Positive Social Reaction	a_1	4.67	1.82	15.05	1.07	.235	.012	
Outcome: Relationship Disruption								.10***
Predictors:								
Constant		3.30	0.33	2.64	3.95			
Positive Social Reaction	a_2	-0.39	0.11	-0.61	-0.17	-.316	<.001	
Outcome: Disclosure Trauma								.43***
Predictors:								
Constant		1.34	.404	0.56	2.16			
Post-Disclosure Stress	b_1	.022	.006	.010	.035	.377	<.001	
Relationship Disruption	b_2	.333	.103	.128	.537	.357	.001	
Positive Social Reaction	c'	.036	.106	-.174	.245	.031	.735	

Note. Regression coefficients from the PROCESS macro testing the parallel multiple mediator model depicted in Figure 12 ($N = 115$)
*$p < .05$, ***$p < .001$

Table 20. *Comparison of Non-Disclosers to Disclosers*

Measure	***M***	***SD***	***N***	***t***	***df***	***p***
Post-Traumatic Stress (PCL-5)				4.08	153	<.001
Non-Disclosers	42.67	16.41	33			
Disclosers	28.38	18.22	122			
Depression Symptoms (BDI)				0.76	135	.448
Non-Disclosers	16.88	10.54	32			
Disclosers	15.08	12.02	105			
Anxiety Symptoms (BAI)				4.45	134	<.001
Non-Disclosers	31.63	14.81	32			
Disclosers	18.52	14.50	104			
General Distress Disclosure (DDI)				-2.00	152	.048
Non-Disclosers	2.95	0.59	33			
Disclosers	3.25	0.82	121			

Note. These between-groups *t*-tests assumed equal variances. There was essentially no difference in these results when examining *t*-tests without assumption of equal variances.

Table 21. *Correlates of the Reasons for Not Disclosing Subscales*

	Reasons for Not Disclosing	
Variable (Measure)	Self-Conscious Emotions	Concerns about Blame
Post-Traumatic Stress (PCL-5)	.57***	.87***
Depression Symptoms (BDI)	.61***	.61***
Anxiety Symptoms (BAI)	.67***	.76***
General Distress Disclosure (DDI)	.17	-.02

Note. ($N = 34$)
***$p < .001$

Table 22. *Non-Disclosers' Concerns about Blame Predict PCL-5 and BAI*

Variable (Measure)	*b*	*SE*	95% CI for *b*		*β*	*Model* R^2
			LL	UL		
Outcome: Post-Traumatic Stress (PCL-5)						.74***
Constant	-2.46	5.70	-14.10	9.17		
Self-Conscious Emotions (IDE)	1.06	2.78	-4.60	6.73	.062	
Concerns about Blame (IDE)	13.33	2.65	7.92	18.74	.808***	
Outcome: Anxiety Symptoms (BAI)						.59***
Constant	-7.40	6.55	-20.77	5.97		
Self-Conscious Emotions (IDE)	2.35	3.19	-4.16	8.86	.148	
Concerns about Blame (IDE)	9.75	3.04	3.54	15.97	.643***	

Note. Multiple regression results predicting post-traumatic stress and anxiety symptoms from reasons for not disclosing subscales ($N = 34$)

***$p < .001$

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Winnicott, D. W. (1986). The theory of the parent-infant relationship. In P. Buckley (Ed.), *Essential papers on object relations* (pp. 233-253). New York University Press. (Original work published 1960)

Wood, P. (1941). Da Costa's syndrome (or effort syndrome): The mechanism of the somatic manifestations. *British Medical Journal, 1*, 805-811.

Woon, F. L., & Hedges, D. W. (2009). Amygdala volume in adults with posttraumatic stress disorder: A meta-analysis. *The Journal of Neuropsychiatry and Clinical Neurosciences, 21*, 5-12. https://doi.org/10.1176/jnp.2009.21.1.5

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Young, J. Z. (1964). *A model of the brain*. Oxford University Press.

Sarah D. Wolf-Gramzow, PhD

Curriculum Vitae

EDUCATION

May 2023 PhD Marriage and Family Therapy, Syracuse University, Syracuse, New York
Dissertation Title: *Traumatization Resulting from Interpersonal Disclosure: Developing a Measure of Disclosure-Induced Neo-Trauma*
Advisor: Linda Stone Fish, PhD
Committee: Linda Stone Fish, PhD, Dyane Watson, PhD, Dessa Bergen-Cico, PhD, Leonard Newman, PhD

May 2016 M.A. Marriage and Family Therapy, Syracuse University, Syracuse, New York
Thesis Title: *Intuition: A Silver Lining for Clinicians with Complex Trauma*
Advisor: Dyane K. Watson, PhD
Committee: Dyane Watson, PhD, Linda Stone Fish, PhD, Deborah Coolhart, PhD, Lisa Tedeschi, LMFT

C.A.S. Trauma-Informed Practice, Syracuse University, Syracuse, New York

May 2014 B.A. Psychology, Syracuse University, Syracuse, New York
Magna Cum Laude, GPA 3.8, Dean's List, Phi Kappa Phi, Honors

CURRENT POSITIONS

Wolf-Gramzow Psychotherapy Private Practice **September 2020 – Present**
Owner and Director
Licensed Marriage & Family Therapist

Adjunct Instructor **Summer 2023 - Present**
Syracuse University
Department of Marriage and Family Therapy

Adjunct Instructor **Spring 2020 - Present**
State University of New York at Oswego
Department of Psychology

PROFESSIONAL MEMBERSHIP

Clinical Fellow **Fall 2018 – Present**
American Association of Marriage & Family Therapy

PUBLICATION

Bergen-Cico, D, Wolf-Stanton, S. D., Filipovic, R. & Weisman, J., (2015). Trauma and neurological risks of addiction. In Victor Preedy (Ed.) *The Neuropathology of Drug Addictions and Substance Misuse.* Volume 3. Academic Press.

PROFESSIONAL PRESENTATIONS/POSTERS

Wolf-Stanton, S. (2018, June). *A Relational Model of the Psychological and Physiological Trauma Response*. Brief Presentation. American Family Therapy Association (AFTA). Austin, Texas

Wolf-Stanton, S. (2018, June). *Family Therapists with Trauma Histories Working with Couples and Families: Seeking to Destigmatize*. Poster Presentation. American Family Therapy Association (AFTA). Austin, Texas

Wolf-Stanton, S. (2017, April). *Sexual Trauma and Neurobiological Correlates.* Presentation. Marriage and Family Therapy Doctoral Sexuality Symposium. Syracuse, NY.

Wolf-Stanton, S., & Gump, B. (2014, October). *Heart rate variability among traumatized youth*. Poster Presentation. National Science Foundation. Alexandria, VA.

MANUSCRIPTS IN PREPARATION

Wolf-Gramzow, S., Wolf-Gramzow, R., Bergen-Cico, D., Stone Fish, L. (2023*). Expanded theory of interpersonal traumatology: A systemic trauma model.*

Wolf-Gramzow, S. & Stone Fish, L. (2023). *Trauma sensitive Bowen family systems theory.*

Stone Fish, L. & Wolf-Gramzow, S. (2023*). Collaborative change model in decreasing vicarious traumatization in mental health professionals.*

Wolf-Gramzow, S., Stone Fish, L. & Barret, M. (2023). *Trauma-informed pedagogical practices for teaching graduate level trauma studies.*

AWARDS

- Allport Scholar Award for Excellence in Research, *Syracuse University 2014*
- Award for Excellence in Applied Psychology, *Syracuse University 2014*
- Member of Honor Society of Phi Kappa Phi, *Syracuse University*
- Member of the National Society of Collegiate Scholars, 2014
- Dean's List for academic achievement, *Syracuse University*, 2012-2014

TEACHING EXPERIENCE

Adjunct Instructor **Spring 2020 - Present**
State University of New York at Oswego
Departments of Human Development and Psychology
PSY 459/559: Ethnocultural Aspects of Trauma
PSY 453/553: Cognitive Processing Therapy
PSY 425/525: Introduction to Trauma Studies
PSY 290: Research Methods in Psychology
HDV 302: Research Methods in Human Development II
HDV 101: Introduction to Human Development

Adjunct Instructor **2018 - 2020**
State University of NY Polytechnic Institute
Department of Psychology
PSY 220: Lifespan Developmental Psychology

Co-Instructor **Spring 2019**
Co-Teaching with Dyane K. Watson, PhD
Syracuse University, Department of Marriage and Family Therapy
MFT 688: Family Therapy Across the Life Cycle

Co-Instructor **Fall 2018**
Co-Taught with Linda Stone Fish, PhD
Syracuse University, Department of Marriage and Family Therapy
MFT 603: Introduction to Trauma Studies

Co-Instructor **Winter 2018**
Co-Taught with Dyane K. Watson, PhD
Syracuse University, Department of Marriage and Family Therapy
MFT 788: Working with Military Families

Co-Instructor **Fall 2016**
Co-Taught with Linda Stone Fish, PhD
Syracuse University, Department of Marriage and Family Therapy
MFT 603: Introduction to Trauma Studies

Teaching Assistant **January 2016**
Bessel van der Kolk, M.D. and Licia Sky
The Body Keeps the Score intensive trauma training

Teaching Assistant **August 2014-December 2014**
Dessa Bergen-Cico, PhD
Syracuse University, Department of Public Health
PHP 318: Dynamics of Addiction

GUEST LECTURES

Neurobiology of Trauma **May 2023**
Instructor: Tracey Reichert-Schimpff, Ph.D, LMFT
Course: MFT 643 Family Therapy with Complex Trauma;
Syracuse University, Syracuse NY

How to Recognize Trauma Indicators Early in Treatment **November 2020**
Training for graduate interns
Alkira Marriage and Family Therapy

Neurobiology of Trauma **May 2020**
Instructor: Tracey Reichert-Schimpff, Ph.D, LMFT
Course: MFT 643 Family Therapy with Complex Trauma;
Syracuse University, Syracuse NY

Professional Interview on Clinical Practice in Psychology **April 2020**
Instructor: Richard Gramzow, PhD
Course: Psychology of Adjustment; *Ithaca College, Ithaca, NY*

Attachment Across the Lifespan **April 2019, 2020**
Instructor: Richard Gramzow, PhD
Course: Psychology of Adjustment; *Ithaca College, Ithaca, NY*

Experiential Family Therapy **January 2020**
Instructor: Thom DeLara, MBA, MSW

Transgenerational Theories **February 2020**
Instructor: Thom DeLara, MBA, MSW

Interventions and Healing for Complex Trauma **September 2019**
Instructor: Linda Stone Fish, PhD
Course: MFT 643 Family Therapy with Complex Trauma;
Syracuse University, Syracuse, NY

Mindfulness & Somatic Interventions for Trauma and Addictions **March 2019**
Co-Presented with Dessa Bergen-Cico, PhD
Training in trauma-informed practices for staff;
Crouse Hospital, Syracuse, NY

Attachment Theory **April 15, 2019**
Instructor: Thom DeLara, MSW, MBA; Dept. Chair
Course: MFT 625 Family Therapy Theory;
Syracuse University, Syracuse, NY

Psychological Testing in Clinical Settings **April 12, 2019**
Instructor: Richard Gramzow, PhD
Course: Methods of Testing and Assessment;
Ithaca College, Ithaca, NY

Traumatic Stress & Its Impact on the Body **February 27, 2019**
Instructor: Richard Gramzow, PhD
Course: Psychology of Adjustment;
Ithaca College, Ithaca, NY

Collaborative Change Model (CCM) for Treatment of Complex Trauma **May 18, 2017**
Instructor: Tracey Reichert-Schimpff, LMFT
Course: MFT 643 Family Therapy with Complex Trauma
Syracuse University, Syracuse, NY

Treating Trauma and Preventing Retraumatization in Therapy **May 8, 2017**
Instructor: David Keith, M.D.
Family Therapy Seminar for Psychiatry Residents
Upstate Medical University, Syracuse, NY

Attachment and Complex Traumatology **April 3, 2017**
Instructor: Rashmi Gangamma, PhD
Course: MFT 625 Family Systems and Therapy;
Syracuse University, Syracuse, NY

Trauma and Attachment: Clinical Application **March 6, 2017**
Instructor: Linda Stone Fish, PhD
Course: MFT 625 Family Systems and Therapy;
Syracuse University, Syracuse, NY

Trauma Resiliency Model (TRM) in Family Therapy **February 16, 2017**
Supervisor: Dyane K. Watson, PhD
Supervision of Masters Level student therapists
Marriage and Family Therapy Department
Syracuse University, Syracuse, NY

General Systems Theory **January 30, 2017**
Instructor: Rashmi Gangamma, PhD
Course: MFT 625 Family Systems and Therapy;
Syracuse University, Syracuse, NY

Trauma in LGBTQ Populations **January 12, 2017**
Instructor: Deb Coolhart, PhD
Course: MFT 642 Therapy with LGBTQ Couples and Families;
Syracuse University, Syracuse, NY

Using Trauma-Informed Practice with Military Families **January 11, 2017**
Instructor: Dyane K. Watson, PhD
Course: MFT 600 Systems Family Therapy with Military Families;
Syracuse University, Syracuse, NY

Impact of Trauma on Individuals and Systems **October 10, 2017**
Instructor: Deb Coolhart, PhD
Course: MFT 661 Introduction to Family Therapy Practice;
Syracuse University, Syracuse, NY

WORKSHOPS CONDUCTED

Incorporating Trauma-Informed Care **February 2023**
The Barnes Center at the Arch, Syracuse University

Vicarious Trauma and Resilience **May 2021**
Annual CNY Prevention Conference, Office of Victim Services

Understanding Trauma and Promoting Resilience **March 2021**
Training workshop for staff at Jowonio School, Syracuse, NY

Mindfulness and Somatic Interventions for Trauma and Addiction **March 2019**
Training workshop for staff at Crouse Hospital, Syracuse, NY
Co-led with Dessa Bergen-Cico, PhD

Moving Traumatic Energy and Re-engaging in Life **April 2017**
Multiple workshops for Sexual Assault Awareness Month
Syracuse University

Impacts of Trauma on Children **December 2016**
Invited Talk at Liverpool School District, Liverpool, NY

Secondary Traumatic Stress and Vicarious Traumatization **October 2015**
Annual CNY Prevention Conference, Office of Victim Services
Co-led with Ellen Ford, LCSW

Trauma Resiliency Model **May 2015**
Local chapter meeting of AAMFT
Syracuse, NY

Community Resiliency Model and Trauma Resiliency Model **April 2013**
Trauma-Informed Care conference
Co-presented with Bill Cross, PhD
Syracuse, NY

PREVIOUS CLINICAL EXPERIENCE

Alkira Marriage & Family Therapy Private Practice **July 2019 – January 2021**
Trauma Psychotherapist
Licensed Marriage & Family Therapist

- Worked with individuals, couples, and families
- Provided systemic psychotherapy to diverse clientele
- Assessment, treatment planning, and collaborative psychotherapy
- Expertise/Specialization in trauma, PTSD, eating disorders, and attachment disruptions

Sol Stone & Nutrition Clinic **August 2019 – January 2020**
Primary Psychotherapist

- Therapist in a partial hospitalization program (PHP) for eating disorders
- Provided individual and group psychotherapy
- Conducted individual therapy with patients on weekly basis
- Conducted family therapy as needed
- Assessment and development of Treatment Plans with patients
- Plan and facilitate education, expressive, and group therapies
- Participated in weekly Treatment Team Meeting, reviewing & documenting patient's progress and recommendations
- Daily documentation of patients' progress as observed in groups, individual therapy as well as in milieu
- Provided staff training in areas of expertise to increase staff awareness and improve treatment
- Served as a member of the on-call clinical team, providing guidance and counseling outside program hours
- Completed intakes, clinical case formulations, discharge summaries for individual patients
- Completed risk assessments on admission and ongoing throughout treatment duration per clients' needs
- Collaborated with medical team for holistic patient care

Crouse Outpatient Chemical Dependency Treatment Services **May 2019 – August 2019**
Contracted Trauma Specialist

- Trained Crouse Staff in trauma-informed approaches to treating addiction
- Developed curriculum for therapists working with patients with histories of trauma and addiction
- Facilitated a weekly trauma group for women with trauma histories and addiction
- Conducted program-evaluation research for efficacy of trauma group intervention

Couple and Family Therapy Center **September 2016 – August 2018**
Marriage and Family Therapy Doctoral Student Therapist

- Supervised by Dyane Watson, PhD (May 2018-August 2018)
- Supervised by Linda Stone Fish, PhD (September 2016-December 2016; September 2017-May 2018)
- Supervised by Deb Coolhart, PhD (January 2017-August 2017)
- Worked with individuals, families, and couples
- Specialized in clientele with histories of complex trauma
- Integrative and Client-Centered/Humanistic approaches
- Theoretical frameworks; Trauma-Informed, Attachment, Experiential, Narrative, Bowen, and Strength-Based
- Models of Intervention: Dyadic Developmental Psychotherapy (DDP), Attachment-Focused Family Therapy, Somatic Experiencing (SE), Trauma-Resiliency Model (TRM), Internal Family Systems (IFS), and Emotionally Focused couples Therapy (EFT)
- Work influenced by the Collaborative Change Model (CCM) to create safety and containment for clients during sessions
- Practice rooted in beliefs around strong intersectionality between trauma and spirituality

Vera House/McMahon Ryan Child Advocacy **May 2015-May 2016**
Marriage and Family Therapist Intern

- Supervised by Carrie Land-Steves, LMFT (Primary supervisor) and Ellen Ford, LCSW-R
- Worked with individuals (child, adolescent, and adult), families, and couples
- Clientele receiving services have experienced traumas including sexual assault, domestic violence, and/or child sexual abuse

Couple and Family Therapy Center **January 2015-January 2016**
Marriage and Family Therapy Masters Student Therapist

- Supervised by Dyane Watson, PhD
- Worked with diverse individuals, couples, and families in a therapeutic setting
- Conducted therapy in a systemic manner using a variety of treatment techniques and approaches

Couple and Family Therapy Center **February 2015-February 2016**
MFT Masters Student Therapist

- Co-therapist with Lisa Tedeschi, LMFT
- Mentored and supervised by Lisa in attachment-based psychotherapy using Dyadic Developmental Psychotherapy
- Served two families with children diagnosed with reactive attachment disorder (RAD) referred by Arthur Becker-Weidman, PhD for attachment based therapeutic intervention
- Weekly debriefing meetings with supervisor and peer-observers of therapy sessions.

Trauma Resource Institute
Trainer in Training **March 2015-2016**

- Selected by TRI to become a trainer for the Trauma Resiliency Model

Community Resiliency Model Trainer

- Co-presented at various agencies such as Vera House, Catholic Charities, Headstart & Oncare

Trauma Resiliency Model (TRM) Facilitator **July 2013-2016**

- Facilitated breakout groups at training conferences for TRM
- Directed practitioners in utilizing skills in mock clinician/client dyads
- Monitored trainees' responses and reported successes and concerns during consultation and supervision

Community Resiliency Model (CRM) Facilitator

- Facilitated breakout groups at trainings for CRM
- Directed practice sessions between guide and persons receiving skills
- Assisted in understanding the skills and application of CRM both for self-care and for client work

OTHER CLINICAL EXPERIENCE

Vera House *Facilitator* **January 2013-August 2014**

- Program planning prior to scheduled classes for the Alternatives Program
- Co-facilitated Domestic Violence classes for perpetrators of Domestic Violence
- Helped clients understand underlying thought patters that motivate deviant behavior
- Taught the abuse cycle that is predictable in relationships that this population is involved
- Offered alternate coping mechanisms to prevent further violence

Vera House *Intern* **August 2012-January 2013**

- Crisis calls with victims
- Attended clinical intake meetings
- Shadowed Domestic Violence education groups for victims of domestic violence
- Co-facilitated Domestic Violence Education classes for perpetrators of Domestic Violence
- Program planning and development
- Assisted in orientations for entrance into Alternatives and Step programs
- Assisted the Alternatives Coordinator during Probation and Parole meetings to advocate on behalf of clients

Women's Information Center **October 2012 - February 2013**

- Facilitated a weekly trauma informed group utilizing the skills of the Trauma Resiliency Model
- Individual consultation as needed

Hutchings Psychiatric Center, Syracuse, NY *Intern* **June 2012 - January 2013**

- Co-leader and facilitator for recovery based support groups
- Attended daily treatment team meetings with providers
- Headed a project on DBT skills training for patients
- Assisted with monitoring the daily activities of individual patients
- Offered one-on-one support to individual patients as needed

RESEARCH EXPERIENCE

Public Health/Mental Health **September 2018 – January 2019**

- Paid Research Assistant under the TRUE grant via the Health Foundation of Western and Central New York
- Contributing co-author of a curriculum manual
- Leading intervention for trafficked women at Crouse Hospital
- Developing and conducting group psychotherapy curriculum for Crouse Hospital
- Co-led workshops on somatic and mindfulness interventions for persons with PTSD
- Led half day workshops on somatic and mindfulness interventions for persons with PTSD
- Collaborating with community agencies for bringing techniques to staff working with patients diagnosed with PTSD

Clinical Mental Health **June 2016 – June 2017**

- Paid Research Assistant under the guidance of Linda Stone Fish, PhD on the grant-funded *In This Together study*
- Manuscript preparation
- Effectiveness study of day long training in the Collaborative Change Model for decreasing vicarious traumatization in mental health service providers

Developmental Psychology **Spring 2018**

- Conducted Adult Attachment Interviews (AAI) with participants
- Edited manuscripts

Clinical Neurophysiology **April 2017 – December 2018**

- Psychiatric Genetic Epidemiology & Neurobiology Laboratory (PsychGENe Lab)
- Manuscript preparation and secondary data analysis under guidance of Stephan Glatt, PhD

National Science Foundation Student Research Fellow **2014**

Training Veterans to Conduct Trauma Research with Fellow Veterans (REU #1063014)
Syracuse University, SUNY Upstate Medical Center, SUNY Oswego

- Examined the physiological, clinical, cognitive, and family factors associated with various trauma outcomes in Veterans
- Nominated to represent 2014 NSF cohort in Washington D.C. (Fall 2014)

Clinical Health Psychology & Public Health **January 2014 – December 2014**

- Research Assistant under the guidance of Brooks Gump, PhD
- Training in heart rate variability (HRV) data collection and analysis
- Secondary data analysis correlating children's exposure to violence with physiological alterations in response to stress
- Presented poster on children's exposure to violence at NSF conference in Washington D.C., Fall 2014

Clinical Health Psychology **January 2014 – June 2014**

- Research Assistant under the guidance of Randall Jorgensen, PhD investigating the validity of an anger scale
- Data Collection and coordination of efforts of other research assistants'

Clinical Health Psychology **June 2013 – January 2014**

- Research Assistant under the guidance of Randall Jorgensen, PhD on a pilot study on facial emotion recognition
- Data collection and entry; Literature searches

Clinical Health Psychology **December 2012 – January 2015**

- WOC employee; Assisting in various tasks as needed
- Research Assistant at the VA on Web-based CBT project to decrease PTSD and SUD symptoms in OEF/OIF Veterans
- Data entry and coding
- Collateral and Recruitment calls
- Follow-up interviews with Veterans
- Assisted Kyle Possemato, PhD in preparing a paper of publishing
- Assisted Kyle Possemato, PhD in other research studies such as PTSD coach and MBSR intervention study

Social Psychology **February 2013 – May 2014**

- Research Assistant in a Psychophysiology lab under Richard Gramzow, PhD
- Secondary data analysis
- Developed a study on the freeze response in humans and the effect of social engagement
- Presented data on Narcissism at a Psychology Poster Session through the Psychology Department at S.U. and won the Best Poster award

Cognitive Neuroscience **January 2012 – November 2012**

- Assisted Catherine Cornwell, PhD
- Conducted olfactory habituation experiments with CDI mice
- Provided training for a student in the PRIDE program
- Presented results at a Psychology Poster Session through the Psychology Department at S.U. and won award for work

PROFESSIONAL TRAINING and CEUs

- Traumatic Stress Studies Certificate Program through the Trauma Research Foundation, in progress
- The Trauma Treatment Blueprint: Neuroscience-based Treatment Interventions for Complex Trauma Clients (CCTP and CCTP-II), in progress
- Trauma-Informed Neurofeedback Certificate Program through the Trauma Research Foundation, in progress
- Essentials of Trauma Treatment: Certified Clinical Trauma Professional (CCTP) Training Course --2019
- Internal Family Systems (IFS) for Trauma, Anxiety, Depression, Addiction & More: An intensive online course with Dr. Richard Schwartz & Dr. Frank Anderson –2019
- Master Class Level II with Arthur Becker-Weidman, PhD in Attachment and Dyadic Developmental Psychotherapy (DDP)—12 two-hour increments with total of 24 training hours –March 2016
- The Body Keeps the Score trauma conference at Kripalu Yoga Institute with Bessel Van der Kolk, M.D. and Licia Sky –2016
- Master Class Level I with Arthur Becker-Weidman, PhD in Attachment and Dyadic Developmental Psychotherapy (DDP)— 12 two-hour increments with total of 24 training hours---2015
- NICAMB online trauma course—2015
- PESI online web training in Emotionally Focused Couples Therapy (EFT) with Susan Johnson---2015
- National Science Foundation REU course, mentored by Brooks Gump, PhD and Dessa Bergen-Cico, PhD--- June 2014
- Mindfulness Based Stress Reduction Classes taught by Bill Cross, PhD
- Dan Siegel, M.D. 6.5-hour lecture on Mindsight and Interpersonal Neurobiology—May 2014
- Mindsight three-day intensive training with Dan Siegel, M.D.--- April 2014
- Trauma Resiliency Model Level 2 training through Elaine Miller-Karas, LCSW—18 training hours in July 2013
- Trauma Resiliency Model Level 1 training through Elaine Miller-Karas, LCSW—18 training hours in October 2012
- Trauma Resiliency Model training through the Trauma Resource Institute as an 8-week class taught by Bill Cross, PhD – February 2012 to April 2012
- Monthly consultation meetings in the Trauma Resiliency Model through Bill Cross, PhD and Randy Imhoff, LMFT
- Somatic Experiencing Conference under Steve Hoskinson, PhD – May 2012

COMMUNITY INVOLVEMENT

- Trained various Syracuse community agencies such as Oncare, Headstart, and Vera House in the Community Resiliency Model (CRM) --- 2014 to Present
- Board member for the Clean Slate Diaries, Domestic Violence and Sexual Assault awareness campaign -- September 2012- April 2013
    - Involved in organization of an annual event
    - Attended monthly board meetings
- Member of the Syracuse Trauma Task Force—2013
    - Took part in community outreach projects to advocate trauma informed care
    - Attended monthly meetings
    - Co-presented with Bill Cross, PhD the Trauma Resiliency skills and the biological aspects of the effects of trauma at a local Trauma Informed Care conference—Spring 2013

Clinical Specializations

- Developmental trauma
- Family Systems
- Intrafamilial abuse and trauma/Intergenerational abuse and trauma
- Posttraumatic stress (PTS) & Posttraumatic stress disorder (PTSD)
- Complex Posttraumatic stress disorder (cPTSD)
- Attachment disruptions & Reactive attachment disorder (RAD)
- Anxiety/Depression
- Eating Disorders

Research Interests

- Disclosure processes and pathogenic social responsivity
- Physiological correlates of complex traumatology
- Intergenerational transmission of trauma
- Traumatogenic family systems
- Retraumatization processes during disclosure
- Attachment injury and betrayal as traumatogenic experiences
- Neural mechanisms of and traumatic attachments
- Integration of Systems Theory and Trauma Theory
- Systemic treatment for complex posttraumatic stress