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Emotional Invalidation: An investigation into its definition, measurement, and effects

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Emotional Invalidation: An Investigation Into Its Definition, Measurement, and Effects

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
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ABSTRACT

Emotional invalidation is a construct closely related to childhood maltreatment, which has been linked theoretically and empirically to the development of psychopathology. This study sought to advance the empirical investigation into emotional invalidation through three primary objectives: 1) to critically review the way emotional invalidation is currently defined and measured in the existing literature, 2) to offer a novel approach at conceptualizing and measuring emotional invalidation as a two part construct comprised of emotionally invalidating behaviors and perceived emotional invalidation, and 3) to experimentally test the effects of invalidating behaviors on a person's perception of emotional invalidation and their level of emotional distress. Results suggest that the invalidation paradigm created for this study did lead participants in this condition to report higher levels of perceived emotional invalidation compared to participants in the neutral condition; however, they did not report higher levels of emotional distress. Potential moderation was examined for participants' levels of borderline personality features and childhood maltreatment based on the theoretical relationships among emotional invalidation and these constructs. Unexpectedly, participants' borderline personality features and childhood maltreatment histories did not individually contribute unique variance in the prediction of emotional distress, but together did predict higher levels of emotional distress. In regards to the perception of emotional invalidation, neither borderline personality features or childhood maltreatment were found to be significant predictors. The need exists for continued research in this area as many questions remain unanswered, and the implications for determining what makes some types of emotional invalidation harmful are significant.

CHAPTER 1: INTRODUCTION

An emotionally invalidating environment is currently defined in the literature as a childhood environment in which caregiver's response(s) ignore, minimize, or punish a child's inner emotional experiences (Linehan, 1993). This could be caregivers telling their child that his/her feelings were unjustified, ignoring or minimizing the child's feelings, blaming their child for experiencing a negative mood state, or punishing him/her for experiencing those feelings. While these are a few examples of ways that a child's emotions can be invalidated, there are many others, and these types of caregiver responses may be quite frequent (Kairys, Johnson, & Committee on Child Abuse and Neglect, 2002). Preliminary evidence gained through theoretical evaluations, correlational research, and critical examinations of related constructs demonstrates the importance of thoroughly exploring emotional invalidation and its effects (i.e., Yates, 2007).

The construct of emotional invalidation was originally developed to describe a common element in the childhood environments of adult patients diagnosed with Borderline Personality Disorder (BPD), a debilitating mental disorder that is estimated to directly impact approximately 2-5% of adults in the United States (Grant et al., 2008; Swartz, Blazer, George, & Winfield, 1990). When the indirect effects of this disorder on family and friends are considered, the percentage of people afflicted by this disorder is even higher.

Borderline Personality Disorder

According to the Diagnostic and Statistical Manual of Mental Disorders IV-TR (DSM-IV-TR; American Psychiatric Association, 2000), BPD is comprised of nine core criteria of which at least five must be present for a BPD diagnosis. These criteria include: 1) an intense fear of abandonment, accompanied by hysterical efforts to avoid it; 2) a chronic pattern of instability among interpersonal relationships; 3) a lack of self-identity; 4) impulsive behaviors in self-damaging activities; 5) recurrent suicidal and/or self-harm behaviors; 6) affective instability; 7) chronic feelings of emptiness; 8) inappropriate and extreme demonstrations of anger; and 9) paranoid ideation and/or severe dissociative symptoms.

To be diagnosed with BPD, an individual must have a long-standing pattern of meeting these criteria as personality disorders are characterized by an early onset and a stable presentation of the symptoms. BPD is most commonly first diagnosed in early adulthood and it is important to differentiate this chronic pattern of instability from transient adolescent behaviors (American Psychiatric Association, 2000). It is generally regarded that the prevalence of BPD is equivalent across races and ethnicities (Castaneda & Franco, 1985), but it is more prevalent among females, with this group making up approximately 75% of those diagnosed (American Psychiatric Association, 2000).

BPD is characterized by a pervasive pattern of instability in emotion regulation, impulsivity, unstable interpersonal relationships, and an inconsistent self-image (American Psychiatric Association, 2000). People who suffer from this disorder show marked disturbance in their daily functioning. In addition, it is a disorder with substantial social implications as it leads psychiatric disorders in the use of community mental health resources (Bender, et al., 2001) and has a suicide rate fifty times that of the general population (American Psychiatric Association, 2000). Based on a recent meta-

analysis, it is estimated that approximately 8% of patients with BPD die by suicide (Linehan, Cochran, Mar, Levensky, & Comtois, 2000), while approximately three-quarters of patients with BPD attempt suicide at least once (Soloff, Lis, Kelly, Cornelius, & Ulrich, 1994). Examined from a different angle, it is believed that 40 to 53% of adolescents and young adults who commit suicide are suffering from a personality disorder with the vast majority of these individuals meeting criteria for BPD (Linehan et al., 2000).

BPD is devastating due to the severity of the symptoms and consequences of this disorder, but these factors are even more accentuated by the challenges involved in treating BPD. It is generally regarded as one of the most difficult disorders to treat because of its chronicity as well as the emotional burden that patients with BPD often place on individuals who try to help them (Linehan & Dexter-Mazza, 2008). As a response to these challenges, researchers have devoted a tremendous amount of time and energy in developing more efficacious treatments specifically for this population. While this research is imperative in improving the lives of individuals with BPD, there is a need for turning some attention towards advancing the prevention of BPD. At the present time, there is a dearth of literature in this crucial area.

Prevention research requires the understanding and targeting of mechanisms by which risk factors develop into fully expressed psychopathology. In the case of BPD, theory and correlational research has identified several putative risk factors, including emotionally invalidating childhood environments. However, significantly less research has been devoted to exploring the direct effect of emotionally invalidating behaviors largely due to methodological limitations in this area. The current study makes advances in this area by proposing a comprehensive definition of emotional invalidation, developing ways to measure it, and developing a paradigm to elicit feelings of emotional invalidation in a laboratory setting. This in-depth examination of emotional invalidation

allows for a greater understanding of the developmental pathways to BPD which can help guide researchers towards the exploration of possible BPD prevention strategies.

BPD Development, Biosocial Theory, and Emotionally Invalidating Environments

The dominant etiological theory for this disorder is the biosocial theory of BPD (Linehan, 1993). This theory posits that individuals with a biological disposition towards a high level of emotional vulnerability are more likely to develop BPD. Emotional vulnerability has three defining features: 1) a low threshold for triggering an emotional reaction, 2) an exaggerated or heightened emotional response, and 3) a slow return to a neutral or calm emotional baseline (Linehan, 1993). These emotional vulnerability traits are believed to be predisposed and relatively stable; however, the theory acknowledges that living in an environment that lacks proper reactions to emotions may also influence a child's emotional vulnerability.

In order for BPD to develop, Linehan (1993) suggests that this biological predisposition towards emotional reactivity must be met with an exposure to chronic emotionally invalidating environments. As previously mentioned, an emotionally invalidating childhood environment is characterized by habitual responses from a primary caregiver that ignore, minimize, or punish a child's emotional expression (Linehan, 1993). These messages may be delivered directly through punitive and minimizing remarks, or more indirectly through children observing their parent's distress (i.e., emotional dysregulation) in response to their emotional expression (Eisenberg, Fabes, & Murphy, 1996). It consists of two primary characteristics: first, it teaches children that their inner thoughts and feelings are wrong and should not be trusted, and secondly, it teaches them that they are responsible for being wrong either through personality flaws or socially undesirable characteristics (Linehan, 1993). Children who grow up in these types of environments often lack consistent self-identities, have difficulty regulating their emotions, and display inappropriate behaviors in their efforts to

express emotion (Linehan, 1993). As described previously on page three, all of these traits represent criteria for a BPD diagnosis in adulthood (American Psychiatric Association, 2000).

Linehan (1993) identifies three types of emotionally invalidating family environments. The first is the “chaotic” family, which is characterized as a neglectful environment due to the parent’s preoccupation with their own problems and/or responsibilities. “Chaotic” families include families that have parental substance use disorders and other mental illnesses, involvement in the out-of-home system of care, and/or abusive environments. In a “chaotic” family, a child’s needs are not being met which is in itself, chronically invalidating. The second type of invalidating family environment is the “perfect” family. In this family, attempts are made at stifling negative emotion due to the parent’s inability to handle these expressions. In this environment, the children learn that it is not okay to express emotion and that something is wrong with them because they cannot control these emotions. The final type of invalidating family environment identified by Linehan (1993) is the “typical” family. This family emphasizes the ability to cognitively control ones’ emotions, but fails to acknowledge that the child may have difficulty regulating and expressing emotion. This inability to recognize the child’s struggle in managing emotions is invalidating.

The biosocial theory of BPD (Linehan, 1993) states that the combination of high emotional vulnerability and a childhood emotionally invalidating environment leads to chronic levels of emotional distress which in turn leads to emotional dysregulation and the subsequent development of BPD. A distinction exists in this theory between emotional distress and emotional dysregulation. Emotional distress is characterized by the experience of negative emotions, while emotional dysregulation is the inability to effectively manage these emotions (Linehan, 1993). More specifically, emotional dysregulation is defined as a lack of emotional awareness and understanding, difficulty

accepting emotional responses, an obstruction in goal directed behaviors due to an inability to control impulsive behaviors that result from emotional distress, and an inability to use appropriate emotional regulation skills to accomplish goal directed behaviors (Gratz & Roemer, 2004). The biosocial theory of BPD proposes that emotional dysregulation is the catalyst for maladaptive behavioral responses seen in individuals with BPD, such as chaotic interpersonal relationships, self-harm behaviors, and other impulsive actions (Linehan, 1993).

Linehan (1993) proposes four consequences of childhood emotionally invalidating environments related to the development of emotional dysregulation. First, children who grow up in these environments are not taught how to accurately label emotions. They fail to obtain the basic knowledge necessary to identify their own emotional expressions or the emotional expressions of others. The second consequence of an emotionally invalidating environment is a failure to learn how to tolerate emotional distress. If children are not guided to accurately identify their emotional expression, they are not going to learn how to handle the emotions that they are taught to deny. This may lead children to develop more extreme emotional displays in order to elicit the reaction to their emotions that they need, the third proposed consequence of an emotionally invalidating environment. Finally, it is believed that children growing up in these environments will internalize the messages that their emotions are flawed and begin to “self-invalidate,” or distrust the validity of their personal emotional experiences. According to Linehan (1993), this “self-invalidation” leads to a vacillation between believing one is evil and deserves negative consequences, and believing that the world is an unfair place and forces excessive demands on the individual. Either interpretation leads to high levels of emotional distress and an inability to tolerate these extreme emotions, thus resulting in emotional dysregulation (Linehan, 1993).

Since the postulation of the Biosocial Theory of BPD, many researchers have engaged in empirical investigations designed to evaluate the validity of the theory (see Crowell, Beauchaine, & Linehan (2009) for a review). Much of this research has directly or indirectly examined the relationship between emotionally invalidating childhood environments and BPD development. The vast majority of research in this area consists of correlational studies examining child maltreatment as it relates to the development of the disorder. Due to the inherent overlap between many forms of child maltreatment and emotional invalidation (as described below), this literature may contain valuable insight into the possible consequences of emotionally invalidating environments.

Child Maltreatment and Its Relationship to Emotional Invalidation

Child maltreatment is purposefully defined broadly as it crosses several fields, such as social services, medical practice, and the legal arena, each of which require specific definitional characteristics (Cicchetti & Toth, 2005). The most widely accepted definition for child maltreatment in the United States is “any act or series of acts of commission or omission by a parent or other caregiver that result in harm, potential for harm, or threat of harm to a child” (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). It is difficult to estimate the actual prevalence of child maltreatment in the U.S., but according to the U.S. Department of Health and Human Services’ 2008 child maltreatment report, approximately 3.3 million referrals of child abuse and neglect were made to child protective services in 2008 with approximately 500,000 of these referrals found to be substantiated (U.S. Department of Health and Human Services, 2010). Current trends in the child maltreatment literature suggest that the most effective way of examining the effects of this construct is by breaking it down into subtypes of abuse and neglect (Behl, Conyngham, & May, 2003). As such, child maltreatment is often operationalized as consisting of four distinct domains: sexual abuse, physical abuse, physical neglect, and psychological maltreatment (Cicchetti & Toth, 2005). More

specifics regarding these four domains and their relation to emotional invalidation will be described below.

Sexual Abuse. The type of childhood maltreatment most commonly associated with the development of BPD is childhood sexual abuse (CSA). The most commonly utilized definition of CSA is the presence of sexual behavior that involves force or coercion, and/or a significant age difference (usually five years) between the child and the abuser (Browne & Finkelhor, 1986). Unfortunately, the relationship between CSA and BPD is not well understood and research findings are inconclusive (Bandelow et al., 2005; Bradley, Jenei, & Westen, 2005; Fossati, Madeddu, & Maffei, 1999).

Several researchers have examined this relationship and found support for the idea that CSA is a major risk factor for the development of BPD (Katerndahl, Burge, & Kellogg, 2005; McLean & Gallop, 2003; Ogata et al., 1990; Soloff, Lynch, & Kelly, 2002; Trull, 2001; Weaver & Clum, 1993; Zanarini et al., 2002). In fact, research shows that close to 75% of inpatient women with BPD have a history of CSA (Linehan, 1993). Yen and colleagues (2002) found that 91.6% of the 167 BPD patients in their sample disclosed a specific sexual trauma, with 55.1% of them reporting physical force with unwanted sexual contact, 36.5% reporting rape, and 13.3% reporting that they witnessed sexual abuse. Support for this significant relationship exists in the other direction as well with approximately one-third of adult survivors of CSA meeting criteria for BPD (Katerndahl, Burge, & Kellogg, 2005).

While many studies have focused on the high incidence of CSA in adult samples of BPD patients, other researchers have argued that these relationships are exaggerated and the development of BPD is more likely due to general problems within the family environment, including characteristics of emotionally invalidating environments (Bandelow et al., 2005; Bradley, Jenei, & Westen, 2005; Cheavens et al., 2005). It appears that the research supports this idea as strong associations exist between the

development of BPD and “grossly deranged family environments” characterized by prominent factors in the “chaotic” family (as described above on page 5) such as separation from parents, including growing up in foster homes and adoption; criminality; family violence; “inappropriate parental rearing styles”; CSA; and a “lack of loving care” (Bandelow, et al., 2005, p. 176). Similarly, Bradley, Jenei, & Westen (2005) found that patients with BPD reported significantly lower family stability, family warmth, and parental relationship quality, while they reported significantly higher rates of parental alcohol abuse, parental anxiety disorders, childhood physical abuse, and childhood sexual abuse. Both of these studies highlight potential precursors to BPD that describe environments which cause children to experience heightened emotional arousal that is frequently ignored, minimized, or punished.

Furthermore, two meta-analyses have examined the effect size between BPD and CSA. Both of these studies provide support for this idea that the development of BPD is more likely caused by family environmental factors, such as parental abuse and neglect, adaptability, conflict or pathology, family structure, support or bonding, and traditionalism, than by the CSA in itself (Fossati, Madeddu, & Maffei, 1999; Rind, Tromovitch, & Bauserman, 1998). These findings have led some researchers to be more direct in their examination of the relationship between these types of potentially invalidating environments and the development of BPD (i.e., Bandelow, et al., 2005) and BP behavioral symptoms (Cheavens et al., 2005).

The physical experience of CSA often leads to feelings of shame, guilt, fear, and confusion (Linehan, 1993). These resultant feelings can put a child at increased risk of being in an emotionally invalidating environment (Fruzzetti, Shenk, & Hoffman, 2005; Linehan, 1993) based on the comments and/or behaviors of the abuser as well as a caregiver’s response to the child’s emotional reactions following the abuse. A child’s feelings may become invalidated when a child is told not to acknowledge the CSA via

threats or is asked to keep silent by the abuser (Paine & Hanson, 2002). In addition, it has the potential to be highly invalidating when disclosure of the abuse is met with disbelief, hostility, and/or lack of support (Feiring, Taska, & Lewis, 2002). Researchers have found that a negative reaction to the disclosure, irrespective of when the disclosure took place, is a significant predictor of psychological symptom severity in adulthood (Feiring, Taska, Lewis, 2002; O'Leary, Cooney, & Easton, 2010; Roesler, 1994). In fact, Roesler (1994) found that for CSA victims who disclosed as children, the reaction to the disclosure mediated the effect of the physical force used during the abuse experience on psychological symptoms, demonstrating that validating and supportive messages may be protective factors and promote a healthier development of psychological functioning.

These findings may indicate that the emotionally invalidating responses following the sexual abuse are actually more harmful than the CSA itself, thus differentiating the effects of sexual abuse and emotionally invalidating behaviors. If a person's response to the disclosure is invalidating in that the child is blamed for the abuse, is encouraged to minimize or deny the abuse experience, or feels that his/her emotional reactions are wrong or misunderstood, the child could interpret from this reaction that his/her feelings are insignificant, less important than the abuser's, or unjustified. The child may learn that the consequences of disclosing vulnerable feelings are negative and turn to silence (Buck, 1984).

It is important to distinguish between the physical aspects of a sexual abuse experience, an invalidating response to the abuse experience, and the child's perception of being emotionally invalidated. In the existing literature that examines the relationship between CSA and the development of BPD, these experiences are indistinguishable as researchers are looking primarily at the experience of CSA (Katerndahl, Burge, & Kellogg, 2005; Yen et al., 2002). While research supports an association between CSA and BPD (i.e., Katerndahl et al., 2005), the strength of this relationship varies, which

may reflect differences in the responses and the perception of these responses following the abuse. These responses and perceptions may be a determining factor in whether the CSA experience is emotionally invalidating. CSA is often described as a proxy for emotional invalidation (Linehan, 1993), but often there are circumstances around the CSA experience that play a critical role in whether or not the experience invalidates the person and increases their risk for BPD.

Physical Abuse. While some researchers have begun to differentiate between the physical experience of CSA and potential aspects of the surrounding context that are emotionally invalidating, this delineation is lacking for other types of childhood maltreatment, such as childhood physical abuse. The definition of physical abuse is perhaps the most straightforward of any of the child maltreatment subtypes. It is defined as the use of physical force against a child that is intentional and either results in or has the ability to result in physical injury to that child (Cicchetti & Toth, 2005; Jud, Landolt, & Lips, 2010; Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). Despite the clarity of the definition, physical abuse is also not a clear proxy for emotional invalidation. A child's experience of physical abuse may only be perceived as emotionally invalidating if the child perceives that the physical violence is a response to their emotional expression.

Research consistently shows that childhood physical abuse has harmful consequences for many victims as both adults (i.e., Fergusson, Boden, & Horwood, 2008) and children (i.e., Messer & Beidel, 1994). Many of these consequences overlap with the theoretically proposed consequences of childhood emotional invalidation as described on page seven. For example, in one study that looked specifically at adult outcomes for children who were physically abused, researchers found that these children were at increased risk of medical problems (i.e., gastrointestinal problems, circulatory problems), somatic complaints, depression, anxiety, and anger problems when compared to adults who were not physically abused as children (Springer,

Sheridan, Kuo, & Carnes, 2007). There also appears to be a relationship between the development of BPD and childhood physical abuse, although this relationship is often overshadowed by CSA (Bradley, Jenei, & Westen, 2005).

Similar to the findings with CSA mentioned above, it is often challenging to differentiate between the consequences of actual physical abuse and other family characteristics that are highly correlated with this type of abuse (i.e., parental alcoholism, parental violence). Studies that have statistically controlled for these family variables have inconsistent results. Some researchers have found increased rates of mental and physical illnesses among adult survivors of physical abuse even after controlling for other family characteristics (Springer, Sheridan, Kuo, & Carnes, 2007), while others have found that these more general family characteristics, rather than the physical abuse experiences, account for the increases in negative adult outcomes (Fergusson, Boden, & Horwood, 2008). It is plausible that these inconsistencies are due to the variety of family characteristics that are examined and point to the importance of having more explicit definitions of types of maladaptive family environments, such as emotionally invalidating environments.

While it is unknown what percentage of physical abuse is subsumed under the category of emotional invalidation, it is clear that some acts of physical violence towards children are in response to a child's behavior rather than their feelings (Stormshak, Bierman, McMahon, Lengua, & Conduct Problems Prevention Research Group, 2000), and a child may not associate the abuse with their emotional expression. Furthermore, it is also possible for a caregiver who uses physical violence to feel remorseful after seeing a child's emotional reaction and try to respond in a way to reduce the child's emotional distress (Graziano, Hamblen, & Plante, 1996). As a result of these inconsistencies in caregiver actions and a child's perceptions, it is possible that physical abuse may or may not be experienced as emotionally invalidating. It is also plausible

that this distinction could help explain why not everyone who is physically abused as a child will experience negative outcomes as adults (Fergusson, Boden, & Horwood, 2008).

Physical Neglect. It is estimated that over half of child maltreatment cases are accounts of physical neglect (Peddle & Wang, 2001), and this subtype of maltreatment is hypothesized to result in the most fatalities (Connell-Carrick, 2003). Despite the obvious importance of neglect, it is underrepresented in the child maltreatment research literature. Physically neglectful families share many similarities to invalidating childhood environments as they are typically described as “chaotic,” lacking warmth, and less expressive of positive emotion (Brown, Cohen, Johnson, & Salzinger, 1998; Gaudin, Polansky, Kilpatrick, & Shilton, 1996), and mothers in particular are characterized as less empathetic, more closed and negative regarding family feelings, and having higher levels of unresolved conflict (Gaudin et al., 1996).

Potential consequences of growing up in a physically neglectful environment often overlap with the believed outcomes of growing up in an emotionally invalidating environment as well as other types of maltreatment environments. Children who grow up in neglectful households have increased levels of externalizing and internalizing disorders, difficulties with peer relationships, as well as challenges with daily living skills (Dubowitz et al., 2005). Adult outcomes of children growing up in neglectful environments include an increased risk of emotional instability (Stirling & Amaya-Jackson, 2008); violence towards others (Stirling et al., 2008); involvement in the criminal justice system (Widom & Maxfield, 2001); physical, sexual, and emotional victimization (Widom et al., 2009); and psychopathology, including PTSD (Widom, 1999) and BPD (Zanarini, 2000) among others.

While there may be substantial overlap between the experiences and consequences of physically neglectful families and emotionally invalidating

environments, these are not the same construct. It is feasible that a child's basic physical needs are not met, but the caregiver is sensitive to the child's feelings. The reverse can be true as well; all of a child's physical needs may be met, but their emotional expressions are consistently invalidated through a caregiver's behaviors and/or through their own perceptions of others' behaviors. When attention is turned towards emotional neglect (a specific domain of psychological maltreatment to be discussed below), this differentiation becomes less clear.

Psychological Maltreatment. Psychological maltreatment (or Emotional/Psychological Abuse as it is sometimes referred) is defined as a caregiver conveying the message to a child that he or she is unlovable, worthless, flawed, unwanted, endangered, or only valuable in the context of someone else's needs (Kairys, Johnson, & Committee on Child Abuse and Neglect, 2002; Navarre, 1987). Again, the similarities between these messages and the messages conveyed in an emotionally invalidating environment are plentiful. The amount of overlap between these messages may depend on the type of psychological maltreatment being examined, as it is often operationalized as nine distinct caregiver behaviors: 1) spurning, 2) terrorizing, 3) exploiting or corrupting that directs a child towards antisocial behaviors, 4) denying emotional responsiveness, 5) rejecting, 6) isolating, 7) unreliable or inconsistent parenting, 8) neglect of mental health, educational, or medical needs, and 9) witnessing domestic violence (Kairys, Johnson, & Committee on Child Abuse and Neglect, 2002).

General psychological maltreatment is believed to be the most harmful of all child maltreatment subtypes, and some argue that it is actually the common core issue that leads to negative outcomes following all types of child abuse and neglect (Hart & Bassard, 1987; Hart, Binggeli, & Brassard, 1998; Yates, 2007). Potential consequences of psychological maltreatment likely overlap greatly with consequences of emotionally invalidating environments, as they include general adult psychological distress (Jo Wark,

Kruczek, & Boley, 2003), higher levels of anxiety, depression, posttraumatic stress, and somatic complaints in adulthood (Spertus et al., 2003), increased adult interpersonal conflict (Messman-Moore, & Coates, 2007), increased suicidal ideation, plans, and attempts, as well as nonsuicidal self-injury (Wedig & Nock, 2007), and higher rates of BPD (Bierer et al., 2003; Zweig-Frank & Paris, 1991). The consequences of the many subtypes of psychological abuse have yet to be examined separately, although it is believed that they would likely vary (Yates, 2007). It has been argued that the consequences of a psychologically abusive environment may vary considerably based on several resiliency factors, such as behavioral coping strategies, self esteem, and disposition (Iwaniec, Larkin, & Higgins, 2006). Other researchers have proposed that these resiliency factors may also impact a child's perceptions of the psychologically abusive experiences and have the ability to minimize harmful consequences (Messman-Moore & Coates, 2007).

As discussed in the subsections above, physical abuse, neglect, and sexual abuse all overlap with emotional invalidation, as victims of these types of abuse and neglect are at an increased risk of being emotionally invalidated. However, it is not by definition that these experiences will be emotionally invalidating. In examining psychological maltreatment, the relationship with emotional invalidation becomes a bit more complex. In order for psychological maltreatment to be considered emotionally invalidating, a child must perceive that his/her feelings are being dismissed or disregarded. While it is expected that this would be the case in many examples of psychological maltreatment, it is possible that a caregiver's actions and/or a child's perceptions of the maltreatment would be focused solely on cognitive and/or behavioral features.

The challenges that exist in separating these three dimensions of personal experience (cognition, behavior, and emotion) are clearly an inherent issue in

differentiating between psychological maltreatment that occurs with and without emotional invalidation. For example, extended isolation may be utilized as a punishment for a child behaving in a manner deemed unacceptable by the caregiver. While this type of punishment would be considered psychological maltreatment (isolation type), the child may not perceive this as emotionally invalidating if they continue to associate the punishment with the behavior they exhibited. On the contrary, if the child becomes more upset as a result of the isolation and is focused on these feelings rather than the behavior itself, the extended absence of contact with an individual to acknowledge these feelings would be emotionally invalidating.

One of the nine distinct caregiver behaviors that make up psychological maltreatment, denying emotional responsiveness, is defined as “ignoring a child or failing to express affection, caring, and love for a child” (p. 1; Kairys, Johnson, & the Committee on Child Abuse and Neglect, 2002). Since children are born with an inherent ability to express emotion (Ekman & Friesen, 1971), a caregiver that denies emotional responsiveness is by definition exhibiting a behavior that can be perceived as emotionally invalidating. This lack of attention towards a person’s emotional expression or emotional needs may also be referred to as emotional neglect, and it is a significant component of emotional invalidation. In comparison to the other domains of psychological maltreatment, the effects of a caregiver denying emotional responsiveness are often the most severe (Hart, Binggeli, & Brassard, 1998), with significant deficits in compliance, impulse control, and emotional tone seen in preschool aged children (Egeland, Sroufe, & Erickson, 1983).

Child Maltreatment and Emotional Invalidation: Overlap and Distinction.

When examining the relationship between child maltreatment and emotional invalidation, there is obvious overlap. All acts of child maltreatment have the potential to be emotionally invalidating, as a child may perceive the abuse experience itself as

emotionally invalidating, a child's emotional responses to maltreatment may be met with behaviors that are emotionally invalidating, and/or a child may perceive a caregiver's responses as invalidating. However, it is also important to note that in every subtype of child maltreatment (sexual abuse, physical abuse, physical neglect, and emotional/psychological abuse), it is possible that a child would not experience emotional invalidation as a result of the maltreatment due to variances in the perceptions of caregiver's responses and behaviors, as well as the attributions assigned to these responses.

The majority of studies examining early environmental factors and BPD development use these maltreatment constructs which often serve as proxies for emotional invalidation, but do not actually measure the construct itself. While abusive and neglectful experiences often involve emotional invalidation, this is not always the case and they should not be interpreted as the same construct. Graybar and Boutilier (2002) were among the first to propose that an investigation into the development of BPD among individuals who do not experience childhood abuse or trauma is necessary. They highlight their own clinical experiences as well as research that finds 20 to 40 percent of individuals diagnosed with BPD do not describe a history of childhood abuse or neglect (Gabbard, 1996). Graybar and Boutilier (2002) posit that it is the "goodness of fit" between a child and their environment that determines BPD development among the significant minority of patients with BPD who do not report a history of childhood abuse or neglect. This idea is similar to the interaction effect of emotional vulnerability and emotional invalidation proposed by Linehan (1993) in the Biosocial Theory of BPD. The underlying commonality is that the child's caregiver is not abusive or neglectful; however, the dynamic that exists between the child and the caregiver is still emotionally invalidating as a result of a lack of fit or understanding based on interacting characteristics of both individuals (Graybar & Boutilier, 2002; Linehan, 1993). These

theoretical assertions are based on clinical observations and point to the need to empirically investigate the multidimensionality of emotional invalidation.

Some researchers have responded to this critical point by looking more specifically at behaviors that may be considered emotionally invalidating, rather than focusing on child maltreatment proxies. However, similar to the research described above, this area is also limited due to the inherent ethical constraints in examining the effects of negative childhood experiences (i.e., children cannot be randomly assigned to potentially harmful caregiver conditions). As a result, the two primary ways this relationship has been explored are 1) observable traits of children experiencing invalidating environments and 2) retrospective self-report data with persons exhibiting characteristics of BPD.

Researchers specifically examining the characteristics of children growing up in emotionally invalidating environments have examined behaviors that may be considered emotionally invalidating, such as harsh verbalizations (Mirabile, Scaramella, Sohr-Preston, & Robison, 2009), suppression of emotional expression (Yap, Allen, & Ladouceur, 2008), and parental criticism (Cheavens, et al., 2005). The consequences of these types of childhood experiences are serious and appear to include potential precursors to BPD development, such as significantly higher levels of emotional inhibition and dysregulated emotional expression (including less adaptive coping skills for negative emotional expression) (Eisenberg, Cumberland, & Spinrad, 1998; Shipman & Zeman, 2001). In addition, children who grow up in environments where these types of behaviors are common appear to be less likely to show their emotions and more likely to expect a negative response from their mother than children from more validating families (Shipman & Zeman, 2001). The cyclical pattern of these environments appears at an early stage as researchers have shown that mothers who used more emotion-intensifying and invalidating behaviors with their toddlers (including threatening, teasing,

and derogatory verbalizations as well as harsh physical behavior) were more likely to elicit venting and aggressive behavior, thus demonstrating more negative emotional reactivity (Mirabile, Scaramella, Sohr-Preston, & Robison, 2009). On the contrary, children whose mothers are more supportive of emotional expression and use a problem-focused approach have better social skills and more advanced emotional coping strategies (Eisenberg, Fabes, & Murphy, 1996).

In one naturalistic investigation of the effects of invalidation to adolescents' positive affect, researchers examined an interaction task between mothers and their adolescents. During the interaction, mothers who made efforts to stifle their teen's expression of positive affect were more likely to have adolescents with higher depressive symptomatology. Furthermore, female adolescents whose emotional expressions were suppressed by their mothers scored higher on a measure of emotional dysregulation, providing preliminary evidence of a connection between emotional invalidation and emotional dysregulation in a naturalistic setting (Yap, Allen, & Ladouceur, 2008).

Retrospective self-report data supports that the problems resulting from childhood emotionally invalidating environments tend to persist into adulthood and manifest themselves across life domains. Studies utilizing data obtained from adults with and without BPD indicate that emotionally invalidating experiences during childhood appear to be involved in the development of the disorder (Cheavens, et al., 2005; Selby, Braithwaite, Joiner, & Fincham, 2008). More specifically, Cheavens and colleagues (2005) found that higher levels of perceived parental criticism (a type of emotionally invalidating behavior described in more detail on page 23) predicted BP symptoms among the college student sample beyond both negative affectivity and thought suppression. Another group of researchers examining a more general emotionally unsupportive environment found that this type of environment partially mediates the

relationship between BPD features and current levels of relationship dysfunction (Selby, Braithwaite, Joiner, & Fincham, 2008).

Whether examining correlations between childhood maltreatment and BPD development or between more specific characteristics of emotionally invalidating environments and BPD development, several challenges exist in attempting to draw conclusions. The heavy reliance on retrospective self-report raises concerns regarding the accuracy of childhood event reporting by individuals diagnosed with BPD (Ebner-Priemer et al., 2006). As mentioned earlier, the ethical constraints involved in examining potentially destructive family environments restrict the use of random assignment which limits the ability to draw causal conclusions. A lack of longitudinal studies in these areas also limits the capacity for looking at causal relationships and directionality.

Perhaps less obvious, one additional limitation in this area is the lack of a clear definition for emotional invalidation. When examining the literature for environmental precursors to BPD development, there is no consistent term or definition for what is described in this paper as emotional invalidation. As noted above, much of the theoretical basis for the relationship between BPD development and emotional invalidation is based in research that looks at childhood maltreatment experiences which may serve as proxies for the construct. Emotional invalidation, not using child maltreatment proxies, has only been examined in a few empirical studies, and these studies have used different definitions or omitted to define the construct. For example, Yap, Allen, and Ladouceur (2008) define emotional invalidation as a parent's restricting, punishing, or dampening of a child's positive affective responses, while Krause, Mendelson, and Lynch (2003) defined invalidation as a parent rejecting, punishing, or dismissing a child's emotional expression of any type. Woodberry, Gallo, and Nock (2008), who published the first attempt at examining the effects of invalidation in an experimental condition, failed to define the construct altogether. It should also be noted

that emotional invalidation in these studies is only evaluated by measuring potentially invalidating behaviors; there is no attempt to measure perceptions of the potentially invalidating behavior's recipient, which may in fact be a large component of emotional invalidation (i.e. behaviors may only be emotionally invalidating if they are perceived as such by the recipient).

“Borrowed Constructs” and Their Relationship to Emotional Invalidation

The omission of a consistent definition may be somewhat responsible for the inconsistent findings and controversial conclusions regarding the environmental precursors to BPD. A primary aim of this study is to address this issue by developing a clear and consistent definition for emotional invalidation. One way to begin this process may be to venture outside of the field of clinical psychology and examine research on constructs related to emotional invalidation from other fields of study. Borrowing from other fields of psychological science (i.e., psychiatry, social psychology, child development), research on specific behaviors that are often emotionally invalidating is abundant. By broadening the discussion to include some of these constructs, it enables a more complete delineation of emotional invalidation.

Expressed Emotion: Emotional over-involvement and Criticism. Expressed emotion (EE) is a construct used to describe the family environment that psychiatric patients return to after treatment. It was originally developed by a sociologist in the 1960s in an effort to examine variations in the emotional climate among ordinary families (Brown, 1985). Currently, EE is comprised of two factors believed to be dimensional ratings: criticism (more recently referred to as perceived criticism (PC)) and emotional over-involvement (EOI). Both PC and EOI may be perceived by patients as emotionally invalidating if they feel the family member's over involvement and/or criticism is minimizing, ignoring, or dismissing their emotional expression. Research consistently shows that psychiatric patients who return to families high in EE are more likely to

relapse (see Hooley, 2007 for a review), but research examining the specific roles of criticism and EOI is less consistent.

Family members who respond to psychiatric patients with high levels of emotional over-involvement are believed to exhibit an overprotective attitude and an exaggerated view of the patient, which is often reflected by an intrusive style of interaction and high levels of emotional distress for the family member (Hooley, 2007). As a single construct, high levels of EOI are related to higher rates of relapse among patients with mood disorders and schizophrenia (Hooley, 2007) and may be indicative of poorer treatment outcomes for individuals with a social phobia (Fogler et al., 2007). It is possible that these poorer outcomes are related to a patient's perception that the family member's intrusiveness is dismissive of their own emotional needs and expressions. For example, if a family member is constantly speaking on behalf of a patient when he is asked about his feelings, he could be receiving a message that his feelings are unimportant and/or he is incapable of voicing them himself.

In contrary to the findings for mood disorders, schizophrenia, and social phobia, preliminary evidence exists to demonstrate that patients with BPD have improved treatment outcomes when their families score higher in EOI (Hooley & Hoffman, 1999). This may indicate that patients with BPD perceive the behaviors of family members high in EOI to be less emotionally invalidating when compared to individuals diagnosed with these other forms of psychopathology. One of the primary characteristics of individuals diagnosed with BPD is a lack of self-identity which often leads to a strong dependence on others (American Psychiatric Association, 2001; Linehan, 1993). Perhaps patients with BPD see a family member's EOI as an expression of genuine concern and/or helpful, rather than perceiving it as overly intrusive. Since these EOI behaviors are measured and standardized through interviews with family members (and not reliant on

retrospective self-report measures), it seems logical to hypothesize that individual variations in perceptions may lead to these different outcomes.

While EOI responses to patients often exhibit good intentions to assist a patient (i.e., “I am afraid of what might happen to my daughter if I leave her alone, so I try very hard to stay at home.”), responses or behaviors high in criticism (as described in the Emotional Expression literature) often are rooted in negative attitudes towards the patient. Family members who exhibit high levels of criticism make remarks that reflect disapproval or dissatisfaction with the patient and/or their behaviors (Hooley, 2007). These comments may be considered emotionally invalidating when patients perceive that the criticism is in reaction to and/or dismissive of their emotions.

Researchers who have looked specifically at parental criticism and other variables that mediate or moderate the relationship between parental criticism and harmful psychological features suggest that high levels of perceived parental criticism during childhood and/or adolescence is associated with more nonsuicidal self-injury (Wedig & Nock, 2007; Yates, Tracy, & Luthar, 2008) and maladaptive adult attachment orientations (Rice, Lopez, & Vergara, 2005). It is worth noting that these two outcomes are both common characteristics of individuals diagnosed with BPD and theoretically believed to be potential outcomes of growing up in an emotionally invalidating environment (Linehan, 1993). In one longitudinal study, it was reported that the relationship between parental criticism and nonsuicidal self-injury was driven by an underlying youth-perceived alienation from their parents (Yates, Tracy, & Luthar, 2008), while maladaptive perfectionism is believed to influence the relationship between parental criticism and adult relationship problems (Rice, Lopez, & Vergara, 2005). Again, these findings highlight the need to look at individual perceptions of caregiver behaviors rather than just the behaviors themselves.

In fact, evidence of individual differences in reactions to criticism both in regards to situational and dispositional factors has existed for some time (Graziano, Brothen, & Berscheid, 1980). Reactions to criticism may vary based on when the criticism was received, who delivered the criticism, the specific type of criticism delivered (i.e., constructive or destructive), and anticipated future interactions with the person who delivered the criticism (Graziano, Brothen, & Berscheid, 1980; Peterson & Smith, 2010). Perceptions of criticism may also vary based on a variety of cognitive interpretations and personality variables (Cheavens et al., 2005; Rice, Lopez, & Vergara, 2005; Wedig & Nock, 2007). These findings support the more recent utilization of perceived criticism (PC) as an alternative to the traditional criticism construct born from the theory of expressed emotion (EE), and evidence suggests that the PC construct is as predictive of treatment outcomes and relapse rates (Hooley, 2007). This recent distinction between critical behaviors and perceived criticism allows for more advanced research in this area, and could perhaps serve as a model for the emotional invalidation construct.

Rejection, Ostracism, and Social Exclusion. The rejection of one's emotional reactions is looked generally upon as an important component of emotional invalidation (Linehan, 1993). Rejection behaviors are often referred to in the literature under several different names (i.e., ostracism, social exclusion, bullying, betrayal), but the research demonstrates little evidence to suggest distinct differences across these constructs (Richman & Leary, 2009; Williams, 2007). Therefore, for the purposes of this brief review, the term rejecting behaviors are used and defined as any act of exclusion with or without purposeful intent. When people perceive a rejecting behavior to be in response to their emotional experiences or expressions, this would be considered emotional invalidation, as their feelings are being disregarded.

The consequences of rejecting behaviors have been examined extensively using a variety of methodologies. For example, laboratory studies using several different

paradigms have examined the causal effects of rejecting behaviors, physiological studies have examined responses both during and after the occurrence of rejecting behaviors, and ambulatory monitoring studies have evaluated the occurrence of rejecting behaviors in day-to-day experiences (Williams, 2007). While the methodologies vary, the consequences of experiencing a rejecting behavior are remarkably consistent, and the outcomes of these studies consistently overlap with the theorized effects of growing up in an emotionally invalidating environment. Regardless of what experimental paradigm is used to deliver a rejecting behavior, participants consistently report increases in emotional distress and pain, while simultaneously reporting decreases in feelings of belonging, perceived level of control, self-esteem, and meaningful existence (see review by Williams & Zadro, 2005). Outside of the laboratory, similar outcomes are reported by participants who recorded rejecting behaviors and their responses to them during a planned ostracism experience (Williams et al., 2000). Physiological studies support the self-reported responses of distress as they find participants who experience rejecting behaviors show increased blood pressure (Stroud et al., 2000), increased cortisol levels (Dickerson & Kemeny, 2004; Gunnar et al., 2003; Stroud et al., 2000), and increased activation of the dorsal anterior cingulate cortex (dACC), which is a region of the brain that becomes activated during physical pain (Eisenberger, Lieberman, & Williams, 2003). It is anticipated that laboratory studies examining the psychological and physiological effects of emotional invalidation may find similar conclusions; however, this is an area that clearly needs investigation.

The results of these studies in the areas of rejection, ostracism, and social exclusion, all lead authors to similar conclusions; rejecting behaviors cause an immediate response of emotional pain inflicted by a lowered perception of relational value (Richman & Leary, 2009). This seems to parallel findings that suggest exposure to emotionally invalidating environments during childhood leads to psychological distress

and relationship challenges in adulthood (Carr & Francis, 2009; Krause, Mendelson, & Lynch, 2003; Selby, Braithwaite, Joiner, & Fincham, 2008). Other researchers have looked more specifically at parental rejection and find that children who perceive more parental rejecting behaviors based on a self-report measure of perceived parental rejection and acceptance are at increased risk for a variety of negative outcomes, including: anxiety, aggression, depression, personal insecurities, self-esteem deficiencies, and emotional unresponsiveness, instability, and dysregulation (Hale, Van Der Valk, Engels, & Meeus, 2005; Rohner, 2008). It is impossible to ignore the similarities in this list of negative outcomes and the symptoms of BPD; in fact, when compared to a non-clinical group of women, women diagnosed with BPD report higher levels of parental rejection as defined by Rohner's (1986) Parental Acceptance-Rejection Theory (PARTheory) (Rohner & Brothers, 1999). The PARTheory looks at accepting behaviors, defined as positive exhibitions of care, and rejecting behaviors, defined as a lack of these positive expressions, on a continuum. According to the theory, individuals will vary on their perception of parental rejecting behaviors regardless of actual parental behavior differences, an idea Rohner (1986) terms undifferentiated rejection.

Researchers have shown that the PARTheory is valid across cultures and age groups (Dwairy, 2010; Khaleque & Rohner, 2002). While the degree of parental rejection by a mother and a father appears to vary in different countries, the overall negative outcomes following this type of rejection are consistent and appear accentuated when parents fluctuate between accepting and rejecting behaviors (Dwairy, 2010). This heightened risk associated with inconsistent responses is also reflected in the belief that children or adolescents who perceive that they have less control have more negative behavioral outcomes following parental rejection than those who perceive more control (Margaro & Weisz, 2006). It is plausible that the vacillation between accepting and

rejecting behaviors is reflected in a child's perceived lack of control, which could be associated with emotional invalidation if the child perceives the caregiver is trying to control her emotional reactions.

While emotional invalidation is similar to this rejection construct, one critical difference is in the importance of the initial emotional experience. For a behavior to be emotionally invalidating, it must be a response to an emotional experience. Furthermore, for the behavior to be perceived as invalidating by the recipient, that individual interprets that behavior as one that disregards his or her emotional expressions in particular. If a person's emotional response occurs following the rejection, then the rejecting behavior itself would not be considered emotionally invalidating. However, if that rejection occurs as a result of an emotional experience, then it would have the potential to be emotionally invalidating. Turning attention back to the construct of criticism, the same distinction can be made; people's actions may be criticized without their emotional experience being invalidated. For example, a disapproving comment can be made regarding a child's behavior during a temper tantrum while it is communicated to the child that the underlying emotion that led to the temper tantrum is accepted (see figure 1).

Conclusions from the "Borrowed Constructs." Emotional over-involvement, criticism, and rejection are similar to each other as they are all behaviors that may be perceived by an individual as emotionally invalidating. Across these constructs there appears to be a common element of perceived devaluation; that is, people experiencing these behaviors are met with disapproval from others (criticism), they are excluded on the basis of not offering value to others (rejection), and/or they are overshadowed by an intrusive caregiver (EOI). It is anticipated that the construct of emotional invalidation will share this common element. Another similarity among these "borrowed" constructs is the link to a personal experience of some form of emotional distress (often multiple forms of distress) and negative psychological outcomes. It is also anticipated that emotional

invalidation will share these common outcomes. However, while there is a theoretical understanding that emotionally invalidating childhood environments lead to emotional distress, negative psychological outcomes, and perceived devaluation (Linehan, 1993), the actual effects of emotionally invalidating behaviors have yet to be empirically tested.

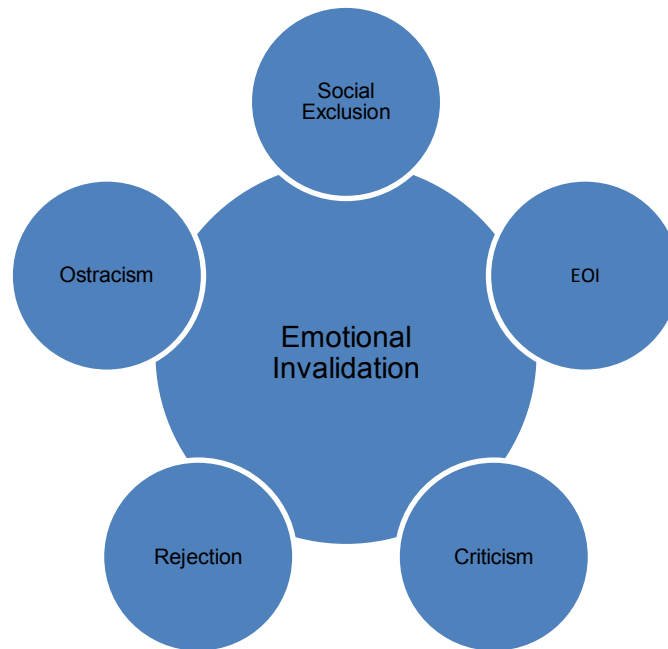


Figure 1: Borrowed Constructs and Emotional Invalidation

These existing bodies of literature can inform the current investigation into emotional invalidation in several ways. First, the process of validation and examination that these constructs have endured is lacking for emotional invalidation. It is a construct that is theoretically linked to BPD development, but it currently lacks a consistent definition and form of measurement, leaving its validity unknown. Secondly, the variety of methodologies used to examine critical and rejecting behaviors is impressive and has contributed to understanding the relationships among these variables and a variety of forms of emotional distress and psychopathology. In addition, laboratory studies have

begun to examine the effects of some of these behaviors allowing for conclusions to be drawn regarding causality. Finally, at some point in the development of each of these constructs, it was recognized that it is imperative to differentiate between the behaviors and the perceptions of the individuals when they experience these behaviors. Without this separation, research findings are tangled as it is unclear what authors are referring to or measuring when they examine a construct. This acknowledgement has not yet been made for emotional invalidation.

The Current Study

The existing conceptualization of emotional invalidation (see Linehan, 1993) leaves room for inconsistencies among individuals who live in what is termed “emotionally invalidating environments.” As can be seen from the literature reviewed above, this term appears to encompass a wide variety of current and past environments ranging from abusive and neglectful experiences, to relationships that lack a “goodness of fit” or understanding between its participants. A second major concern with the current conceptualization of emotional invalidation is its overemphasis on childhood experiences of invalidating environments; this focus has influenced researchers such that they have primarily designed retrospective self-report studies of emotional invalidation. A third major concern has been the interchangeable use of the word “invalidation” in the literature to describe behaviors of “invalidating” persons that are in themselves potentially invalidating and also feelings that individuals (recipients of invalidating behaviors) experience as a result of these behaviors (i.e., Cheavens et al., 2005; Sauer & Baer, 2010).

The current project addresses these issues in three studies. The first study led to the creation of a clear definition and measurement of emotional invalidation and its components that can be utilized across studies and fields. One major focus for the development of the definition(s) was to minimize the inconsistencies in the existing

definitions by establishing the presence of both invalidating behavior and perceived invalidation as a result of the behavior. Another aim of the new definition(s) was to expand its utilization across age groups and situations to broaden its scope and limit the overemphasis on childhood experiences. With definitions established, the aim of the second study was to develop an appropriate measure for emotional invalidation and its components. In an effort to fill a major measurement gap in the literature, an Invalidating Behaviors Checklist (IBC) and the Perception of Emotional Invalidation Inventory (PEII) were developed to measure the presence of emotionally invalidating behaviors during an interpersonal interaction and a person's perceptions of being emotionally invalidated as a result of such behaviors.

Building on study one, the second study involved the creation and validation of an emotionally invalidating paradigm and a neutral (control) condition paradigm using behaviors from the IBC. The third study used these validated paradigms to experimentally test the effects of emotional invalidation. In this study, the effects of this paradigm on emotional distress and perceived invalidation were examined, and a preliminary investigation into the psychometric properties of the IBC and PEII was conducted. A preliminary investigation into correlates that may influence the perception of feeling emotionally invalidated was also conducted. More specifically, the relationships among the emotional invalidation components, BP features, and childhood abuse experiences were examined. It was hypothesized that all participants exposed to the invalidating paradigm would elevated scores on the perception of emotional invalidation and emotional distress compared to participants in the control condition. It was also hypothesized that participants higher in BP features would display higher scores on perceived invalidation. The same prediction was anticipated for participants who reported childhood abuse experiences. Finally, it was hypothesized that the BPEII would adequately capture the presence of both invalidating behaviors and perceived

invalidation, and that while these two components would be related, they would also be distinguishable.

To date, only two published studies have attempted to experimentally investigate the construct of emotional invalidation. Woodberry, Gallo, and Nock (2008) concluded that their invalidation paradigm was effective, although they were only able to report trends towards higher levels of arousal from invalidation compared to validation: their results did not reach statistical significance. Alternatively, Shenk and Fruzzetti (2011) did find that their invalidation group experienced significantly more distress in comparison to a validation group. It is important to note two significant limitations of these studies. First, the authors did not adequately define emotional invalidation and did not make any attempt at measuring this construct. They made an assumption that their paradigm would be perceived as emotionally invalidating by all participants.

Secondly, the invalidation paradigm used by these teams of researchers was based on a cognitive task designed to illicit an emotional reaction (frustration), and a confederate was used to either make a validating or invalidating comment to the participant about their reaction to the task (Shenk & Fruzzetti, 2011; Woodberry, Gallo, & Nock, 2008). Previous research suggests that invalidation during a cognitive task is unlikely to illicit a salient emotional response, whereas invalidation to an emotional response can lead to more prominent reactions. It is proposed that this may be due to cognitive and affective tasks eliciting different parts of the brain, therefore complicating the process of invalidation (Sherman & Kim, 2002). While the researchers were attempting to invalidate the feeling of frustration that arose from the cognitive task, it is possible that the cognitive attention to the task complicated this relationship and was a distraction from the emotional invalidation. The current study improves upon these previous attempts by using the concrete definition of emotional invalidation (described below on pages 31 and 32) that includes emotionally invalidating behaviors and

perceived invalidation, measuring these constructs directly, and testing the effects of a paradigm focused specifically on the interpersonal nature of emotional responses.

CHAPTER 2:
STUDY 1: EXPANDING THE DEFINITION AND DEVELOPING MEASURE(S) OF
EMOTIONAL INVALIDATION

Method

Participants. This study involved the recruitment of topic experts in areas related to emotional invalidation, including BPD development, child abuse and neglect, expressed emotion, criticism, and rejection. The researcher selected twenty topic experts based on their publishing productivity in the field. The minimum requirements for selection as a topic expert were having a doctoral degree or its equivalent and the publication of peer reviewed journal articles directly related to the targeted research area. Sixteen (80%) of the experts had a doctoral degree in clinical psychology, 1(5%) in clinical/community psychology, 1(5%) in social psychology, 1(5%) in developmental psychology, and 1(5%) in counseling psychology. The range of publications among the recruited experts was 6 to 270 with an average of 64.5 publications. Gender representation was equal with 10 (50%) women and 10 (50%) men.

The twenty identified topic experts were also asked to provide recommendations for other experts in their areas that met the qualifications and could be interested in participating in the study. A five dollar gift card incentive was provided in an effort to encourage participation in this study. At the end of the four week time period, four experts had returned their item coding in the mail and five experts had completed the survey online for a response rate of 45%. In an effort to increase the response, three additional experts were contacted. These experts were recommended by one of the

original experts due to their expertise in emotional invalidation. One month following this second effort, none of these additional experts had responded.

Measures and materials.

Recruitment letter and instructions for topic experts. Potential topic experts were sent a packet of information requesting their participation in study one of this dissertation proposal via electronic mail or standard ground mail. The packet included a letter of consent explaining that they were being asked to participate in a study exploring the construct of emotional invalidation because of their expertise in this area (or a closely related area). Details about what would be involved if they agreed to participate in the study were provided. In the packet, he/she received the materials needed to complete the tasks of the study, including instructions, a copy of the preliminary definition of emotional invalidation and its components (Appendix A), and the Measurement Items Feedback Form (Appendix B). The packets sent via ground mail included a preaddressed, postage paid envelope for document return and the gift card incentive for each prospective participant.

Preliminary definition of emotional invalidation and its components. In the instructions, participants were asked to reference the “Preliminary Definition of Emotional Invalidation and Its Components” which was found on page 2 of their recruitment packet (Appendix A). Participants were provided a brief rationale for the new definition and a complete description of what constitutes an invalidating behavior, perceived invalidation, and the process of emotional invalidation. They were asked to use the definition to help guide their completion of the Measurement Items Feedback Form.

Measurement items feedback form. The Measurement Items Feedback Form (Appendix B) was created for use in this study as a method of categorizing items as an emotionally invalidating behavior or a perception of emotional invalidation. The form

consisted of a list of 55 items related to the process of emotional invalidation. For each item, topic experts were asked to categorize the item as an example of “perceived invalidation,” “invalidating behavior,” or “other.” The “other” category was defined to include items that were neither perceived invalidation or an invalidating behavior or items that could be included in both categories. In addition to the item categorization, the topic experts were invited to provide comments regarding the applicability of the items and their relation to the preliminary definition of the process of emotional invalidation. They were asked to suggest additional items for either component of emotional invalidation and to suggest invalidating behaviors that could be used in an emotionally invalidating experimental paradigm. Space for these comments and suggestions was provided at the bottom of the Measurement Items Feedback Form.

Procedures. An initial literature review in the areas of emotional invalidation, BPD development, child abuse and neglect, expressed emotion, criticism, and rejection was conducted in an effort to establish a preliminary definition of emotional invalidation and its components that could be evaluated by topic experts in the field(s). The steps towards the development of this definition included a thorough exploration of the literature utilizing the following search terms in PsycInfo and Google Scholar: invalidation, emotional invalidation, borderline personality disorder, BPD, child [physical, sexual, emotional, psychological] abuse, child(hood) maltreatment, neglect, criticism, rejection, ostracism, social exclusion, expressed emotion, and emotional over-involvement. From this literature review, a process of construct mapping and model development assisted in organizing these areas of research in order to develop the preliminary definition of emotional invalidation described above in the measures and materials subsection.

The researcher utilized the preliminary definition of emotional invalidation and its components to generate a master list of items directly and indirectly related to emotional

invalidation. The items include behaviors that may be interpreted as emotionally invalidating, as well as feelings that may result from the perception of being emotionally invalidated. This list was constructed through the literature review described above as well as the examination of existing measures for the constructs related to emotional invalidation. Items were selected that overlap or closely relate to the preliminary definition of emotional invalidation. Some items were also selected that are peripheral to the preliminary definition of emotional invalidation to encourage topic experts to be selective among the items.

The initial literature review also served as the mechanism by which researchers were identified as topic experts to be contacted and asked to participate in this study. These topic experts were sent the recruitment letter and instructions for participation as described above in the materials and measures subsection, in which they were asked to review the definition of emotional invalidation and complete the Measurement Items Feedback Form. All feedback from the topic experts was evaluated and utilized to create a preliminary version of the Invalidating Behaviors Checklist (IBC) and the Perceptions of Emotional Invalidation Inventory (PEII). Topic experts were asked to complete their task within four weeks and send all materials back via postal mail in the pre-addressed, postage paid envelope provided in their packet. One participant requested to return their Measurement Items Feedback Form electronically. In order to maintain anonymity, after this request, all prospective topic experts were sent a link via electronic mail to an anonymous, electronic survey on the internet where they could provide responses. These responses were collected and combined with the documents received via standard ground mail.

Results

Participants categorized each item as an invalidating behavior, perceived invalidation, or other. Their ratings were impressively consistent with an intraclass

correlation coefficient of .89. One participant discontinued the exercise at item 32 (causing missing data for 23 items), so this participant's responses were not included in the reliability analysis.

Each of the 55 items on the Measurement Items Feedback Form was examined separately to determine which items should be retained for the Invalidating Behaviors Checklist and the Perceived Emotional Invalidation Inventory. Frequency data was obtained to determine how many experts categorized the item in each domain. Items with an inter-rater reliability of .80 based on percent agreement were retained for consideration in the development of the Invalidating Behaviors Checklist and the PEII (Nunnally, 1978). Overall, reviewers were unanimous on 21 of the 55 items (see Table 1 for a complete listing of item coding). Nine of these items were labeled as perceived invalidation items, and twelve of the unanimous items were labeled as invalidating behaviors. All of the unanimous perceived invalidation items were retained for the PEII. One additional perceived invalidation item was utilized that had only one person in disagreement (89% rater agreement). Ten of the unanimous invalidating behavior items were retained for use in the Invalidating Behaviors Checklist. Three unanimous items were impractical as behaviors in a confederate paradigm. Two of these items were omitted from the IBC and one was retained as a distracter item. One additional invalidating behavior item was added that had only one person in disagreement (89% rater agreement).

It is notable that none of the unanimous items were labeled as other, despite the inclusion of distracter items. In fact, one of these intended distracter items ("2. Someone physically harmed me when I disagreed with his/her idea.") was coded as an invalidating behavior by eight of the nine reviewers. This item did not mention any emotional response as it was asking about a physical action in response to a cognitive trigger. Due to the specific emphasis on invalidation of emotional responses in the current study, this

item was dropped despite its meeting the percent agreement inclusionary criterion. The remaining 32 items did not meet the inclusionary criterion and were therefore dropped from the measures.

In addition to the coding of individual items, participants were offered an opportunity to provide additional comments pertaining to the items and/or the definition of EI, to suggest additional items, and to suggest invalidating behaviors that would be useful in the development of an invalidating paradigm.

In regards to overall feedback pertaining to the items and definition, a few themes emerged. Four participants commented on a potential methodological flaw in the items due to the easy differentiation of items based on the item stems (i.e., the perceived invalidating items stem being “I felt” and the invalidation behaviors stem being “Someone (did)”). In response to the proposed definition of EI, two participants agreed with the importance of differentiating the behavior and the perception of the behavior, while two others reported that this difference may be arbitrary. One of these participants suggested that the critical difference may be between invalidation by others versus self- invalidation rather than invalidating behaviors and the perception of these behaviors. This same participant also articulated the importance of clearly defining the construct and recognized the inconsistency of the construct in the current literature.

Three participants offered suggestions for additional items to be included in a measure of emotional invalidation. However, the items could not be used for the current study because none of the participants attempted to categorize their suggested items as an invalidating behavior or a perceived invalidation.

Table 1: Expert Reviewer Categorical Ratings for Items on the Measurement Items Feedback Form

	Item	IB	PI	Other	Omit
1	Someone said he/she did not understand my emotional reaction.	4		5	
2	Someone physically harmed me when I disagreed with his/her idea. ^a	8		1	
3	It seemed like my emotional reaction was wrong or incorrect because of someone's response.		9		
4	Someone ignored me when I shared my feelings.	8		1	
5	I felt like I should forget about my feelings and move on because of someone's response.		9		
6	Someone used a disapproving voice tone when talking about my emotional reaction.	8		1	
7	Someone insulted my emotional reaction.	7	1	1	
8	Someone discouraged me from expressing my feelings.	7	1	1	
9	Someone verbally disagreed with my feelings.	6		3	
10	Someone's body language communicated that he/she did not want to hear about my feelings.	6	1	1	1
11	Someone rejected my idea.	4		4	1
12	Someone told me that my feelings were weak.	9			
13	I was told to forget about my feelings and move on.	9			
14	Someone criticized my feelings.	8		1	
15	It seemed someone was discouraging me from sharing my feelings.	1	7	1	
16	Someone criticized my performance at work.	3	1	4	1
17	Someone told me I should be feeling differently.	9			
18	Someone overreacted when I expressed my feelings.	5	1	3	
19	It seemed like my feelings were minimized because of someone's reaction.		8	1	
20	I felt insulted when I shared my feelings.		9		
21	I felt like my feelings were irrational because of someone's response.		9		
22	Someone seemed to disapprove of my feelings.	2	5	2	
23	Someone made a comment that was critical of my feelings.	7	1	1	
24	I felt embarrassed when I shared my thoughts with someone.		5	4	
25	Someone's response caused me to feel left out.	1	4	4	
26	Someone felt like my feelings were irrational.	1	2	6	
27	I was ignored when I shared my feelings with someone.	7	1	1	
28	Someone told me my feelings were unimportant.	9			

Table 1 (Continued)

29	I felt embarrassed for expressing my feelings because of someone's response.		7	2	
30	Someone told me I was to blame for my feelings.	9			
31	Someone told me that he/she would feel differently.	1		8	
32	Someone did not want to listen to me express my feelings.	6	1		2
33	It seemed like my feelings were misunderstood when I shared them with someone.		6	2	1
34	Someone insulted me based on my feelings.	7	1		1
35	Someone told me I was overreacting.	8			1
36	I felt someone was being critical of my feelings.		8		1
37	I felt like my feelings were my fault because of someone's response.		8		1
38	I felt ignored when I shared my feelings.		8		1
39	Someone said I should just get over my feelings.	8			1
40	I felt like my feelings were unimportant because of someone's response.		8		1
41	I felt weak because of someone's response to my emotional reaction.		8		1
42	Someone reacted negatively when I disagreed with his/her idea.	3		5	1
43	I was told my feelings were ridiculous.	8			1
44	Someone rejected me because of my emotional reaction.	6	1	1	1
45	Someone discouraged me from sharing my feelings by interrupting me.	5	2	1	1
46	Someone rolled their eyes when I shared my feelings.	8			1
47	I felt like someone disagreed with my feelings because of his/her response.		7	1	1
48	I was told my feelings were irrational.	7		1	1
49	I felt worse after I shared my feelings with someone because of his/her response.		7	1	1
50	I felt like I was overreacting because of someone's response.		7	1	1
51	Someone made a comment that minimized my feelings.	8			1
52	Someone stated that my feelings were wrong or incorrect.	8			1
53	I was told my emotional reaction was not normal.	8			1
54	Someone told me I should feel embarrassed by my emotional reaction.	6		1	2
55	Talking with someone made me feel worse.	1	3	4	1

Note. IB = Invalidating behaviors, PI = Perceived invalidation.

^aWhile item 2 met criteria for inclusion based on expert review, it was not included because it is not involving the invalidation of emotion specifically.

Discussion

The expert review of the emotional invalidation items resulted in a unanimous categorization of 9 perceived invalidation items and 12 invalidating behavior items. All of the nine perceived invalidation items were included on the Perceived Emotional Invalidation Inventory. Ten of the invalidating behavior items were included on the Invalidating Behaviors Checklist. The other two invalidating behavior items that were unanimously classified were impractical for the confederate paradigm; therefore, they were not included on the measure. Five additional items met the criterion for inclusion on the measures. One of these items was a perceived invalidation item and was included on the Perceived Emotional Invalidation Inventory. Two of these items were invalidating behavior items and were included on the Invalidating Behaviors Checklist. One of the items was categorized by expert raters as “other” indicating that they did not perceive it to be an invalidating behavior or perceived invalidation. The final item that met the criterion for inclusion was a distracter item and was not intended to be categorized as either an invalidating behavior or perceived invalidation because the item did not address any emotional content. Neither of these last two items were included on the emotional invalidation measures.

Items that were agreed upon by the expert raters appeared to differ from items that were not selected based on a perceived level of harm towards the recipient of the behavior. For example, items indicating that the recipient felt ignored, misunderstood, or not listened to were less likely to be unanimously coded as perceived invalidation than items that indicated the recipient felt insulted, weak, or criticized. In regards to invalidating behavior items, expert raters seemed more consistent on behaviors that leave less room for interpretation. For example, items that stated a specific invalidating comment (i.e., “Someone told me my feelings were unimportant.”) were coded as an

invalidating behavior, whereas comments that were less specific (i.e., “Someone insulted my emotional reaction.”) were not agreed upon.

The results of this expert review generally support the conclusions drawn from the literature review that there is little consensus regarding what constitutes emotional invalidation on an item level. Only 21 of the 55 items were agreed upon unanimously by the expert coders. Furthermore, one intended distracter item was labeled as an invalidating behavior by 8 of the 9 expert raters despite the item having no emotional content. This item may have been labeled as an emotionally invalidating behavior due to the emphasis that the current literature places on abuse as a proxy for emotional invalidation since the item was related to physical harm. The inter-rater reliability of the measure as a whole indicates that expert raters were similar in their categorizations overall; however, the inconsistencies on specific items still demonstrate room for improvement in how emotional invalidation and its components are operationally defined.

CHAPTER 3:

STUDY 2: TESTING THE VALIDITY OF THE EXPERIMENTAL PARADIGM

Method

Participants. Fifty-eight participants were recruited from the undergraduate psychology participant pool at the University of South Florida using Sona Systems, an online recruiting and data collection program. Participants were all female and ranged in age from 18 to 24 years-old ($M = 20.10$, $SD = 2.44$). Only females were eligible to participate because the paradigm is being validated for use in an all female experimental study. Eleven participants (19.0%) identified as African American, 27 (46.6%) as Caucasian/White, 5 (8.6%) as Multiracial, 4 (6.9%) as Asian American, 8 (13.8%) as Latina/Hispanic, 1 (1.7%) as Arab or Middle Eastern, and 2 (3.4%) as Other. Twenty-four (41.1%) of the participants were freshman, 12 (20.7%) were sophomores, 9 (15.5%) were juniors, and 13 (22.4%) were seniors. All participants were unmarried with 38 (65.5%) reporting that they were not in a committed relationship and 20 (34.5%) reporting that they were in a committed relationship. Participants received one Sona credit in exchange for their participation.

Procedure. When participants in the observational condition, recruited through SONA, arrived for the study, they were led to a classroom equipped with a television, large table, and ten to twenty chairs. Prior to the commencement of the study, the experimenter provided a verbal overview of the informed consent form. This included a review of the requirements for participation, possible risks and benefits, and confidentiality and its limits. The experimenter then answered any questions from the

participants and asked participants to sign the form if they wanted to participate in the study. Participants were informed that they were participating in a pilot study designed to evaluate the presence and/or absence of a variety of behaviors during a social interaction. All participants agreed to participate.

After collecting all of the signed consent forms, participants watched two short video clips. One video clip was a sample of the invalidation condition utilized in study three, which consisted of a scripted interaction between a research assistant acting as a “participant” and a confederate designed to invalidate the “participant’s” emotional experience after she watched a distressing movie clip. The other video clip was a sample of the neutral condition which was also a scripted interaction between the “participant” and confederate, but the responses were designed to be neutral rather than emotionally invalidating. These video clips were exact replicas of the paradigm utilized for the invalidation and control conditions described below in study three. All participants watched both conditions and the order of the clips was randomized by group to control for potential order effects. The participants were asked to complete the Invalidating Behaviors Checklist following each video clip. The experimenter emphasized the importance of completing the ratings without any discussion among themselves. Once they watched both video clips and completed the Invalidating Behaviors Checklist following each observation, the participants were thanked for their participation and asked not to disclose any information about the experiment to other potential participants.

Measure.

Invalidating behaviors checklist. The Invalidating Behaviors Checklist (IBC; see Appendix C) was created from items retained following the analyses of the expert review feedback in Study One. The checklist consisted of 20 items. Eleven of the items asked about the presence of behaviors in the invalidation condition. All of these items

were classified by the expert reviewers as emotionally invalidating behaviors. Four of the items asked about behaviors present only in the neutral condition. These items were included to examine the participants' observation of neutral behaviors in an effort to provide validation of this condition. Two of the items asked about the presence of behaviors in both the neutral and invalidation condition, and the remaining two items were not present in either condition. These validity items were included to encourage participants to examine the behaviors as they occurred in each video rather than expecting each item to be classified distinctly as one condition or the other.

The instructions asked participants to respond to each item by making a mark next to it in the "Yes" column if they observed the behavior and the "No" column if they did not observe the behavior. Two scores were calculated for each condition to examine the percentage of correct responses. In the invalidation condition, participants' received a score for the positive identification of the invalidating behaviors and a score for the absence of identification of the neutral behaviors. In the neutral condition, participants' received a score for the positive identification of the neutral behaviors and a score for the absence of identification of the invalidating behaviors. For the purpose of comparison between conditions, two subscale scores were calculated by summing responses to the items: one for the invalidating behaviors and one for the neutral behaviors.

Results

Frequency data was obtained for each item and can be found in Table 2. Following the video clip of the invalidation paradigm, each scripted invalidating behavior was correctly observed by at least 80% of the participants. Overall, participants had a mean score of 91.2% for correctly reporting the scripted invalidating behaviors and a mean score of 86.0% for correctly identifying items that did not occur in the invalidation paradigm. Following the video clip of the neutral paradigm, each scripted neutral behavior was correctly observed by nearly 80% of the participants. In this condition,

participants had an overall mean score of 73.9% for correctly reporting the scripted neutral behaviors and 91.9% for correctly identifying items that did not occur in the neutral paradigm. Participants had an overall mean score of 86.2% for correctly identifying the validity items in the invalidation condition and 64% for correctly identifying the validity items in the neutral condition. Notably, 69% of the participants responded “yes” to item one (categorized as an incorrect response) following the observation of the neutral condition. Inter-rater reliability on the Invalidating Behaviors Checklist was very high for both the invalidation video clip (intraclass correlation coefficient = .990) and the neutral video clip (intraclass correlation coefficient = .995).

Table 2: Frequencies on Invalidating Behaviors Checklist by Condition

Item	Cond. Present	Neutral		Invalidation	
		Yes	No	Yes	No
1. The questioner stated that she agreed with the respondent’s feelings.	Neither	40 (69)	18 (31)	0 (0)	58 (100)
2. The questioner stated that the respondent’s feelings were wrong or incorrect.	I	1 (1.7)	57 (98.3)	53 (91.4)	5 (8.6)
3. The questioner told the respondent that she was overreacting.	I	1 (1.7)	57 (98.3)	47 (81)	11 (19)
4. The questioner stated that she felt strange asking the respondent the questions.	N	51 (87.9)	7 (12.1)	5 (8.6)	53 (91.4)
5. The questioner confirmed that they were watching the same video clip.	Both	50 (86.2)	8 (86.2)	47 (81)	11 (19)
6. The questioner used a disapproving voice tone when talking about the respondent’s emotional reaction.	I	1 (1.7)	57 (98.3)	57 (98.3)	1 (1.7)
7. The questioner made a comment that minimized the respondent’s feelings.	I	6 (10.5)	51 (89.5)	54 (93.1)	3 (5.2)
8. The questioner wasn’t sure about the point of the experiment.	N	57 (98.3)	1 (1.7)	22 (38.6)	35 (61.4)
9. The respondent was told her emotional reaction was not normal.	I	3 (5.2)	55 (94.8)	50 (87.7)	7 (12.3)
10. The questioner was neutral while listening to the respondent’s feelings.	N	46 (79.3)	12 (20.7)	1 (1.7)	57 (98.3)
11. The respondent expressed feeling happy after watching the video clip.	Neither	2 (3.4)	56 (96.6)	2 (3.4)	56 (96.6)

Table 2 (Continued)

12. The questioner told the respondent that her feelings were weak.	Neither	0 (0)	58 (100)	17 (29.3)	41 (70.7)
13. The respondent was told to forget about her feelings and move on.	I	5 (8.6)	53 (91.4)	52 (89.7)	6 (10.3)
14. The questioner criticized the respondent's feelings.	I	0 (0)	58 (100)	57 (100)	0 (0)
15. The questioner was openly listening to the respondent's feelings.	N	53 (91.4)	5 (8.6)	9 (15.5)	49 (84.5)
16. The questioner told the respondent that her feelings were unimportant.	I	4 (6.9)	54 (93.1)	51 (87.9)	7 (12.1)
17. The questioner told the respondent that she should be feeling differently.	I	0 (0)	58 (100)	55 (96.5)	2 (3.5)
18. The questioner said the respondent should just get over her feelings.	I	2 (3.4)	56 (96.6)	52 (89.7)	6 (10.3)
19. The questioner asked about the respondent's feelings.	Both	58 (100)	0 (0)	48 (84.2)	9 (15.8)
20. The questioner rolled her eyes when the respondent shared her feelings.	I	0 (0)	58 (100)	54 (93.1)	4 (6.9)

Note. I = Present in the invalidation condition only, N = Present in the neutral condition only, Both = Present in both the invalidation and neutral conditions.

Two separate one-way repeated measures analysis of variances (ANOVAs) were conducted to test for differences between the observations of each condition on the invalidation subscale and the neutral subscale of the Invalidating Behaviors Checklist. Items that measured behaviors which were present or absent in both conditions were not included in the analysis. A statistically significant difference was present between the invalidating behaviors subscale following the invalidation observation ($M = 20.97$, $SD = 1.43$) and the neutral observation ($M = 11.34$, $SD = .74$), $F(1,57) = 2130.07$, $p < .001$. A similar difference was present between the neutral subscale following the invalidation observation ($M = 4.62$, $SD = .70$) and the neutral observation ($M = 7.57$, $SD = .62$), $F(1,57) = 739.79$, $p < .001$. The partial eta squared was over .90 for both conditions, indicating a very large effect for condition.

Four independent samples t-tests were conducted to examine differences on the invalidating behaviors subscale and the neutral subscale based on the order that participants watched the videos. A Bonferroni adjustment was made to minimize type I

error. Participants who watched the invalidation condition video first ($M = 7.78$, $SD = .51$) had higher scores on the neutral subscale following their observation of the neutral condition compared to participants who watched the neutral condition video first ($M = 7.39$, $SD = .67$), $t(56) = 2.48$, $p < .025$. Similarly, participants who watched the neutral condition video first ($M = 21.32$, $SD = 1.25$) had higher scores on the invalidation subscale following their observation of the invalidation condition compared to participants who watched the invalidation condition video first ($M = 20.56$, $SD = 1.53$), $t(56) = 2.10$, $p = .04$. However, this result was not statistically significant when using the Bonferroni adjustment.

Discussion

As expected, significant differences were found between the observation of the invalidation condition and the neutral condition. Participants consistently observed the invalidating behaviors scripted into the invalidation paradigm and did not observe them in the neutral paradigm. Similarly, participants consistently observed the neutral behaviors in the neutral paradigm and not in the invalidation paradigm. These results indicate that the invalidation paradigm consisted of invalidating behaviors that were consistently recognizable by observers and that these behaviors were not present in the neutral condition. Thus, it was determined that the paradigms were appropriately designed to deliver the desired behaviors, and no changes were made to either paradigm script.

These findings suggest that observers of an interpersonal interaction are able to observe invalidating behaviors. This may have important ramifications for examining individual differences in the perception of emotional invalidation. If invalidating behaviors can be observed from an objective viewpoint by an observer, the subjective interpretation of such behaviors by the recipient of an invalidating behavior may be more interpretable. It is anticipated that this will be the case for participants in study three who

were exposed experimentally to the two paradigms validated in this study. The validation of these paradigms allows for a clearer interpretation of individual responses to invalidating behaviors.

One unexpected finding during study two was that 69% of the participants reporting observing that the confederate agreed with the participant's response in the neutral condition. This perception could introduce a confound into the neutral condition if participants perceive the confederate's responses as emotionally validating. In an effort to minimize this, the neutral paradigm was reviewed with the confederates and the importance of maintaining a neutral stance and tone was emphasized. Research suggests that people have a tendency to seek feedback that is positive or negative (Fishbach, Eyal, & Finkelstein, 2010). This may have led some participants to report the neutral statements as more positive, which could help explain these unexpected findings.

It is important to note some limitations to the use of these paradigms based on methodological constraints in the validation procedures. The participants in this study were all 18-to 24-year-old females. It is not assumed that these results are generalizable to males and/or participants in other age ranges. Data was collected in a group setting, so group effects may have impacted participant responses. Efforts were made during the data collection process to minimize this possibility by asking participants to create physical space from other participants and limit verbal communication.

It appears that the order in which participants watched the video tapes may have had an impact on participant's ratings for the two conditions. More specifically, participants seemed to notice more of the target behaviors for the second condition that they observed. This could be due to a familiarity effect (Bornstein, 1989). Participants may have gained some insight into the purpose of the video clips and been primed to look for certain types of behaviors. Regardless of order, however, participants were still

able to correctly identify the invalidating behaviors and the neutral behaviors during the appropriate video observations. Therefore, this finding does not have significant implications for the conclusions of this study.

Despite these limitations, the practical implications of this study are important. Having a validated manipulation paradigm for the delivery of emotionally invalidating or neutral behaviors allows for the direct examination of the effects of these behaviors. As noted earlier, the theoretical link between emotional invalidation and emotional distress is well established. The validation of these paradigms allows for additional attempts at experimentally determining whether there is a causal relationship between the presence of emotionally invalidating behaviors and associated outcomes or if some other explanation may exist for the co-occurrence of emotionally invalidating histories and associated outcomes.

CHAPTER 4:

STUDY 3: EXPERIMENTAL TEST OF THE EFFECTS OF EMOTIONAL INVALIDATION

Method

Participants. One hundred participants were recruited from the undergraduate psychology participant pool at the University of South Florida using Sona Systems, an online recruiting and data collection program. A power analysis with a power level set to .80 determined that this sample size was adequate to detect a medium effect size using the planned statistical procedures. Participants received course credit in exchange for their participation. Prior to participation, all participants completed an informed consent form in which all potential risks of the study were disclosed and their signature was obtained. Eight participants were excluded because they articulated the hidden purpose of the study prior to debriefing.

This study was limited to female participants because of the intention to examine emotional invalidation in the theoretical context of the Biosocial Theory of BPD and the disproportionate number of women identified with BPD (American Psychiatric Association, 2000). The only other inclusion criterion for this study was that participants needed to be between the ages of 18 and 24. The onset for BPD is typically seen in early adulthood (American Psychiatric Association, 2000), making this age group a relevant population for research exploring the impact of emotional invalidation in the theoretical context of BPD development.

Participants (N = 92) were all female and ranged in age from 18 to 24 years of age with a mean age of 19.9 (SD = 1.74). Twenty-two participants (24.2%) identified as

African American, 43 (47.3%) as Caucasian/White, 2 (2.2%) as Multiracial, 9 (9.9%) as Asian American, 11 (12.1%) as Latina/Hispanic, 1 (1.1%) as Native American/Indian, and 2 (2.2%) as Other. In regards to current romantic relationship status, 47 (51.6%) of participants identified as “Single,” 39 (42.9%) as “In a relationship,” 4 (4.4%) as “Engaged,” and 1 (1.1%) as “Married/Committed partnership.”

Participants were asked to report on their typical living situation during three periods of childhood (0 to 6-years-old, 7 to 12-years-old, and 13 and older). Between the ages of 0 to 6-years-old, 57 participants (62.6%) reported that they lived with both natural parents, 2 (2.2%) lived with a natural parent and a step parent, 5 (5.5%) lived with a single natural parent, 2 (2.2%) lived with relatives, and 7 (7.7%) lived in multiple family configurations during this age period, and 18 (19.8%) of participants did not report this information. Between the ages of 7 to 12-years-old, 43 participants (47.3%) reported that they lived with both natural parents, 9 (9.9%) lived with a natural parent and a step parent, 10 (11.0%) lived with a single natural parent, 2 (2.2%) lived with relatives, and 6 (6.6%) lived in multiple family configurations during this age period, and 21 (23.1%) of participants did not report this information. At the age of 13 and older, 49 participants (53.8%) reported their typical childhood living situation as living with both natural parents, 8 (8.8%) living with a natural parent and a step parent, 19 (20.9%) living with a single natural parent, 1 (1.1%) living in foster care, 2 (2.2%) living with relatives, and 12 (13.2%) living in multiple family configurations. The majority of participants reported a childhood household income of \$30,001 to \$60,000 (N = 29; 31.9%), while 27 (29.7%) participants reported less and 32 (35.2%) participants reported a higher income.

Participants were randomly assigned to two groups, with 46 participants in the invalidation condition and 45 participants in the neutral condition. In order to confirm adequate randomization of groups, preliminary analyses were conducted to confirm that no unintended differences existed between the invalidation condition participants and the

control condition participants in regards to demographic items, levels of emotional distress prior to the paradigm implementation, levels of borderline personality features, and frequencies of childhood maltreatment experiences. No statistically significant differences existed on any of these variables between the two groups (See results section).

Measures.

Demographic items. Information was gathered regarding the participants' gender, age, and ethnic/racial identity. In addition, participants were asked their relationship status, primary living situation throughout childhood, and family income.

Emotional invalidation. The Perceptions of Emotional Invalidation Inventory (PEII; see Appendix D) was developed at the conclusion of study one. It includes items identified by the topic experts as displaying content validity for the purpose of measuring an individual's perception of experiencing emotional invalidation. Item responses on the PEII are recorded using a 5 point Likert-scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). For the purposes of data analyses, an overall perception of emotional invalidation score was calculated as a total score. This scale demonstrated high reliability in the current study (Chronbach's Alpha = .94).

Borderline personality behavioral symptoms. BP behavioral symptoms were measured using the Inventory of Altered Self-Capacities (IASC; Briere, 2000). This measure is a 63-item self-report questionnaire comprised of seven scales which assess domains consistent with Borderline Personality Disorder: Interpersonal Conflicts (IC), Idealization-Disillusionment (ID), Abandonment Concerns (AC), Identity Impairment (II – with a self awareness subscale [II-S] and an identity diffusion subscale [II-D]), Susceptibility to Influence (SI), Affect Dysregulation (AD – with an affect skill deficits [AD-S] subscale and an affect instability [AD-I] subscale), and Tension Reduction Activities (TRA). Respondents are asked to complete items based on their frequency of

occurrence during the last six months on a Likert-rating scale ranging from 1 (“never”) to 5 (“very often”). This scale has demonstrated good psychometric properties with a standardization sample as well as clinical and university validation samples. Reliability estimates are high and the scale has demonstrated good convergent and discriminant validity (Briere, 2000). Consistent with previous reports of reliability estimates, the measure demonstrated high reliability in the current study (Chronbach’s Alpha = .97).

Experiences of childhood abuse and neglect. The Child Trauma Questionnaire – Short Form (CTQ-SF - SF; Bernstein, et al., 2003) was used to measure childhood experiences of physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect. This measure is a shortened, 28-item version of the Child Trauma Questionnaire (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997) and is a widely used assessment of childhood maltreatment. Responses to items inquiring about abuse and neglect experiences are recorded on a Likert-rating scale ranging from 1 (“never true”) to 5 (“very often true”). Previous research has demonstrated adequate reliability and validity for this measure among a variety of populations, such as adolescent psychiatric patients, adult substance abuse populations, and general adult community samples (Bernstein, et al., 2003). The subscales of the CTQ-SF demonstrated adequate reliability in the current study with Chronbach’s Alpha values ranging from .67 (physical neglect) to .92 (sexual abuse and emotional neglect). Chronbach’s Alpha values for the remaining two subscales, emotional abuse and physical abuse, were .78 and .77 respectively.

Emotional distress. The Expanded form of the Positive and Negative Affect Schedule (PANAS-X; Watson & Clark, 1994) was used in this study to measure current levels of emotional distress. The PANAS-X is an expanded version of the original Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). It consists of four scales for negative mood states (fear, sadness, guilt, and hostility) and

three scales for positive mood states (joviality, self-assurance, and attentiveness). Instructions for participants regarding the time frame for their responses vary by study (Gray & Watson, 2007; Crawford & Henry, 2004). This scale has demonstrated strong reliability and validity (Watson & Clark, 1994) and the original version of the PANAS, which follows the same response format and structure, has been shown to adequately measure emotional changes in experimental designs with multiple administrations (Sharpe & Gilbert, 1998).

For the purposes of the current study, participants were asked to respond to items based on their current feelings. Responses to the items are based on a 5 point Likert-scale ranging from 1 ("Very slightly or not at all") to 5 ("Very much"). For the current study, the subscales for sadness (5 items; i.e., "blue", "lonely"), guilt (6 items; i.e., "ashamed", "dissatisfied with self"), and hostility (6 items; i.e., "angry", "scornful") were utilized. These 17 negative affect items were totaled for the negative mood state score. Reliability estimates for the current study were consistent with previous estimates for the PANAS-X indicating high reliability for the negative scale (Chronbach's Alpha = .85 (Time 1) and .91 (Time 2)).

Procedures. Participants were recruited through Sona, the online recruiting and data collection program. The study was posted online for participants to sign up and was made available to participants who met the inclusion criteria outlined above. The posting used a generic study number and listed times and location for the study. No additional information was provided specific to the study. Prior to arriving for their scheduled experiment time, participants were randomly assigned through a computer generated randomization program to be in the invalidation or neutral condition. Upon their arrival, they were greeted by the experimenter. Once they entered the room, they could see the confederate sitting at a computer with headphones next to the monitor and were introduced to her as another participant. The experimenter asked the participant to sit at

the other computer in the room where headphones were placed next to the monitor. After the participant was seated, the experimenter reviewed the informed consent document with the participant and the confederate. The informed consent form described the study's purpose as looking at people's personality type, childhood experiences, movie preferences, and their reactions to a variety of movie clips. They were told that they were going to complete a few brief questionnaires, watch a variety of short video clips, and interact with one another at various points of the experiment. The trained research assistant provided a verbal overview of the consent form and answered any questions from the participant. The participant and the confederate were asked to sign the last page of the form if they agreed to participate. The experimenter collected both informed consent documents and the experiment began.

The first stage of the experiment was a rapport building exercise (Aron et al., 1997) that is used in psychology experiments to help participants get acquainted with each other and build personal connections. The participant and the confederate each received identical lists of questions on a small piece of paper. There were three sets of questions each on separate pages. The participant and the confederate were asked to engage in as natural a conversation as possible using the questions by taking turns asking and answering these questions. For this exercise, there is a time limit on each of the three lists of questions where people are given one minute to complete the first set of questions, three minutes to complete the second list, and five minutes to complete the last list. The questions get more involved and more personal in each set of questions. The experimenter left the room while the participant and the confederate were answering the questions, but entered the room at the end of each time period to hand them the next list of questions.

After the rapport building exercise, the participant and the confederate were instructed that they would be watching a brief video clip. The experimenter told them

they would be watching the video separately using headphones, but that they were watching the same video. The participants were instructed that they would be asked to complete a short questionnaire packet after watching the video clip with questions asking about their reactions to the video and their movie preferences. The experimenter informed the participant and the confederate that one of them would be sharing the responses they write down about their reactions to the video clip, and this person would be selected randomly through drawing. The participant was asked to select a number from a hat, which appeared random but was predetermined to have the participant provide her responses.

Once the instructions were thoroughly explained, the participant and confederate proceeded with watching the video clip and completing the questionnaire packet. The video clip was from the movie, "The Champ." Its duration was approximately three minutes, and it involved a small boy realizing that his father just died. This particular segment of the video has been validated as an effective way to elicit sadness in experimental studies (Rottenberg, Ray, & Gross, 2007). The experimenter remained in the room to answer any questions or address any technical challenges with the video clip. The questionnaire packet for this portion of the study included the PANAS-X, a 15-item filler questionnaire asking about their movie preferences, and a standardized form asking participants to report on their emotional reactions to the video clip (Appendix E). After the participant completed her questionnaire packet, the participant and the confederate were asked to move their chairs to the center of the room so that they were facing each other. The participant was asked to take out her reactions form and the experimenter handed the confederate a blank copy of the form. The experimenter instructed the confederate to ask the participant the questions exactly as they appeared on the form and write down the participant's responses. She was asked to open the door

when they completed the interaction so the experimenter would know they finished. The experimenter then left and the experimental paradigm (Appendix F) began.

During the paradigm, the confederate read the questions on the reaction form in order and gave the participant a chance to provide her responses to each item. Following each response, the confederate delivered a scripted sentence(s) that applied to any of the participant's potential responses. In the invalidation condition, the confederate's statements to the participant were scripted using the invalidating behaviors identified by the expert reviewers in study 1. In the neutral condition, the confederate's responses during the experimental paradigm were neutral rather than invalidating.

Following the paradigm, the experimenter entered the room and asked the participant and the confederate to complete another questionnaire packet. This packet included the PANAS-X, the Perceived Emotional Invalidation Inventory (PEII), a 15-item filler questionnaire asking about the "other participant's" movie preferences, the IASC, and the CTQ-SF. When they completed the questionnaire packet, the experimenter asked them to stay for a few minutes to talk about the experiment. The experimenter inquired about the participant's beliefs about the study's purpose and any suspicions they might have had about the experiment. If participants disclosed suspicions or indicated that they thought the study had a hidden purpose, these beliefs were explored further until a decision could be reached about whether the participant's responses could be considered valid. Once this decision was made, participants were introduced to the confederate, informed about the true purpose of the experiment, asked not to disclose information about the study to other potential participants, thanked for their participation, and given a list of mental health resources to access if they experienced any distress during the experiment.

Results

Preliminary Analyses. Descriptive statistics for emotional distress at time one and time two (PANAS-X), perceived invalidation (PEII), Borderline Personality traits (IASC), and child maltreatment (CTQ-SF) can be found in Table 3. The data was screened for missing values and normality. No data was missing for time one and time two emotional distress, one participant was missing a response for one item on the PEII, three participants were missing a response for one item on the CTQ, and one participant was missing a response for one item on the IASC. In these cases, mean imputation was utilized to replace the missing values. In cases when more than one item response was missing for a participant (CTQ-SF, N = 1; IASC, N = 6), that participant's scores were omitted from the analysis. All variables except perceived invalidation had distributions outside the normal range. A logarithmic transformation was conducted in an attempt to normalize the distribution of the data (see Table 4) (Osborne, 2013). This procedure was successful in normalizing all variables except the time two emotional distress score which maintained a distribution that was positively skewed (1.45) and leptokurtic (3.11) and child maltreatment which maintained some slight skew (1.14). While the univariate analyses conducted in this study are generally robust to these normality exceptions (Hopkins & Weeks, 1990), the statements of probability should be interpreted with caution.

Table 3: Descriptive Statistics for Emotional Distress, Perceived Invalidation, Borderline Personality Features, and Childhood Maltreatment Experiences

	N	Mean	Std. Dev.	Skewness	Kurtosis
T1 Emotional Distress	92	1.47	.11	.54	.28
T2 Emotional Distress	92	1.33	.11	1.45	3.11
Perceived Invalidation	92	1.28	.19	-.01	-1.04
BP Features	86	2.06	.13	.39	-.03
Child Maltreatment	91	1.54	.13	1.14	.67

Table 4: Descriptive Statistics for Emotional Distress, Perceived Invalidation, Borderline Personality Features, and Child Maltreatment Following Logarithmic Transformation

	N	Mean	Std. Dev.	Skewness	Kurtosis
T1 Emotional Distress	92	28.18	7.40	1.33	2.61
T2 Emotional Distress	92	22.20	7.22	2.93	12.74
Perceived Invalidation	92	21.12	9.18	.69	-.18
BP Features	86	119.17	37.13	1.38	3.55
Child Maltreatment	91	36.32	12.84	1.86	3.86

Descriptive statistics for subscales on the IASC indicated that mean scores were near the clinical cutoff score (t-score ≥ 70) for Interpersonal Conflicts ($M = 19.77$; $SD = 5.93$), Idealization-Devaluation ($M = 18.24$, $SD = 6.51$), and Affect Dysregulation ($M = 18.48$, $SD = 7.87$) (see Table 5). The highest subscale scores on the CTQ-SF were emotional neglect ($M = 8.84$, $SD = 4.71$) and emotional abuse ($M = 8.19$, $SD = 3.60$). This is particularly relevant for the current study given the emphasis on emotional invalidation. All subscale scores for the CTQ-SF can be found in Table 6.

Table 5: Descriptive Statistics for IASC Subscale Scores

	N	Mean	SD	Skewness	Kurtosis	T-score
Identity Confusion	86	19.77	5.93	.97	1.31	69
Idealization-Disillusionment	86	18.24	6.51	.86	1.51	66
Abandonment Concerns	86	17.63	7.09	1.15	1.27	64
Identity Impairment	86	17.95	7.66	1.22	1.00	65
Susceptibility to Influence	85	14.47	6.08	1.85	4.60	60
Affect Dysregulation	86	18.48	7.87	.94	.73	67
Tension Reduction Activities	86	12.51	3.98	1.53	2.23	59

Table 6: Descriptive Statistics for CTQ-SF Subscale Scores

	N	Mean	SD	Skewness	Kurtosis
Emotional Abuse (EA)	91	8.23	3.60	1.53	2.13
Physical Abuse (PA)	91	6.74	3.05	3.05	11.36
Sexual Abuse (SA)	91	6.15	3.55	3.49	12.37
Emotional Neglect (EN)	91	8.84	4.71	1.52	1.81
Physical Neglect (PN)	91	6.37	2.19	2.07	4.64

Descriptive data demonstrated variance in PEII scores among all participants. Scores ranged from 10.0 to 47.0 ($M = 21.12$, $SD = 9.18$). Variability also existed among participants in the invalidation condition. Scores for participants in this condition ranged from 10.0 to 47.0 ($M = 26.97$, $SD = 8.72$). Scores for participants in the neutral condition ranged from 10.0 to 27.0 ($M = 15.28$, $SD = 4.96$).

A series of one-way Analysis of Variances were conducted to verify success at randomization. No significant differences existed between participants in the invalidation condition and the neutral condition in regards to age ($F(1,89) = .445$, $p = .51$), race/ethnicity ($F(1,88) = .077$, $p = .78$), romantic relationship status ($F(1,89) = .174$, $p = .68$), childhood living situation ($F(1,89) = .396$, $p = .53$), childhood household income ($F(1,86) = .222$, $p = .64$), emotional distress at time one ($F(1,90) = .632$, $p = .43$), borderline personality features ($F(1,84) = .637$, $p = .43$), and childhood maltreatment experiences ($F(1,89) = .011$, $p = .92$).

All correlations were examined among the transformed variables to be included in the regression analyses described below (see Table 7) as well as the subscale scores included in these variables (see Tables 8 & 9). One of the strongest correlations existed between time one emotional distress scores and time two emotional distress scores ($r = .54$, $p < .001$), indicating that participants higher in emotional distress following their viewing of the movie clip also had higher levels of emotional distress following the experimental paradigm. Participants higher in borderline personality features were

higher in emotional distress scores at both time one ($r = .41, p < .001$) and time two ($r = .42, p < .001$). The susceptibility to influence subscale had the highest correlation with time two emotional distress scores ($r = .42, p < .001$) among the IASC subscales, while it had one of the lower correlations with time one emotional distress scores ($r = .25, p < .05$) when compared to the other IASC subscales. As anticipated, participants who reported higher levels of borderline personality features also reported higher levels of childhood maltreatment ($r = .30, p < .01$). Interestingly, however, participants who reported higher levels of childhood maltreatment did not report higher levels of perceived emotional invalidation ($r = .04, ns$) or emotional distress at time one ($r = -.11, ns$) or time two ($r = .11, ns$).

Table 7: Correlation Matrix for Emotional Distress, Perceived Invalidation, Total Borderline Personality Features, and Total Childhood Maltreatment Experiences

	1	2	3	4	5
1. T1 Emotional Distress	-	.54***	.10	.41***	-.11
2. T2 Emotional Distress		-	.12	.42***	.11
3. Perceived Invalidation			-	.10	.03
4. BP Features				-	.31**
5. Child Maltreatment					-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Contrary to what was hypothesized, time two emotional distress scores and perceived emotional invalidation scores were not correlated ($r = .12, ns$). It was originally proposed to examine the hypotheses of this study through multivariate statistics with emotional distress and perceived emotional invalidation as the two dependent variables. However, the multivariate analyses planned require a strong empirical relationship between them (Weinfurt, 1995). Due to the lack of correlation between these two variables, two sets of univariate analyses were conducted instead.

Table 8: Correlation Matrix for Emotional Distress, Perceived Invalidation, and IASC Subscales

	1	2	3	4	5	6	7	8	9	10
1. T1 Emotional Distress	-	.54***	.10	.28**	.41***	.39***	.25*	.27*	.41***	.32**
2. T2 Emotional Distress		-	.12	.39***	.34**	.38***	.28**	.41***	.40***	.34**
3. Perceived Invalidation			-	-.03	.21*	.13	.09	.21*	.13	.09
4. Identity Confusion (IC)				-	.64***	.65***	.39***	.51***	.64***	.58***
5. Idealization-Disillusionment (ID)					-	.67***	.58***	.52***	.66***	.62***
6. Abandonment Concerns (AC)						-	.64***	.57***	.69***	.62***
7. Identity Impairment (II)							-	.56***	.59***	.59***
8. Susceptibility to Influence (SI)								-	.57***	.57***
9. Affect Dysregulation (AD)									-	.76***
10. Tension Reduction Activities (TRA)										-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 9: Correlation Matrix for Emotional Distress, Perceived Invalidation, and CTQ-SF Subscales

	1	2	3	4	5	6	7	8
1. T1 Emotional Distress	-	.54***	.10	-.05	-.19	-.05	-.17	.11
2. T2 Emotional Distress		-	.12	.23*	.03	-.10	.07	.20
3. Perceived Invalidation			-	.06	-.01	-.04	.03	.01
4. Emotional Abuse (EA)				-	.52***	.35**	.67***	.54***
5. Physical Abuse (PA)					-	.28**	.44***	.36***
6. Sexual Abuse (SA)						-	.25*	.34**
7. Emotional Neglect (EN)							-	.67***
8. Physical Neglect (PN)								-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Testing for Group Differences by Condition. A one-way analysis of covariances (ANCOVA) was conducted to examine differences between the participants in the invalidation condition and the neutral condition in levels of emotional distress following the experimental paradigm while controlling for emotional distress scores at time 1. The assumption of homogeneity of regression slopes was confirmed by testing the significance of the interaction term for time one distress and condition ($F(1,88) = .73, p = .40$). The Levene's test of homogeneity of variance was conducted and this assumption was also met ($F = .03, p = .86$). When examining time two emotional distress, a main effect for condition was not present when controlling for time one emotional distress ($F(1,89) = .52, p = .47$). Thus, emotional distress scores following the experimental paradigm were not statistically different between participants in the invalidation condition and those in the neutral condition.

A one-way analysis of variance (ANOVA) was conducted to examine differences between participants in the two conditions in levels of perceived emotional invalidation following the experimental paradigm. Perceived invalidation scores violated the homogeneity of variance assumption indicating that the error variance is not equal between the two groups (Levene's statistic = 10.72, $p < .01$). A logarithmic transformation was conducted for perceived invalidation scores to create equal variances between the groups (Levene's statistic = .028, $p = .87$) (Osborne, 2013). Participants in the invalidation condition ($M = 27.09, SD = 8.78$) did perceive significantly more emotional invalidation in comparison to participants in the neutral condition ($M = 15.28, SD = 4.96$), $F(1,89) = 62.72, p < .001$.

Testing for Potential Moderators.

Emotional distress. To test the hypothesis that the experience of current emotional invalidation would be related to higher levels of emotional distress following the experimental paradigm (time two) among participants with higher levels of Borderline

Personality traits and childhood maltreatment, a hierarchical regression analysis was conducted utilizing transformed variables. Emotional distress at time one was entered in the first step as a control variable to examine the relative contribution of time 1 emotional distress in accounting for the variance of time 2 emotional distress. The expected predictors, borderline personality traits and childhood maltreatment experiences, were entered in step 2 to test the relative contribution of these variables in the predictive value of the model. The final expected predictor, condition (invalidation v. neutral), was recoded as a continuous variable with participants in the invalidation condition given a value of .5 and the neutral condition -.5. These values were chosen for effects coding in order to enhance the interpretability of mean differences between the groups (Serlin & Levin, 1985). Condition was then entered as the third step in the regression analysis. In addition to the main effects of the expected predictor variables, the fourth step added interactions between condition and borderline personality traits as well as condition and childhood abuse/neglect experiences to test for potential moderator effects.

The model in step one was statistically significant, $F(1,84) = 34.62, p < .001$ (see Table 10). Emotional distress at time one ($\beta = .54$) significantly predicted emotional distress at time two and accounted for approximately 29 percent of the variance in participants' emotional distress scores at time two ($R^2 = .29, p < .001$). The model in step two was also statistically significant, $F(3,82) = 14.61, p < .001$. Emotional distress at time one ($\beta = .47$) significantly predicted emotional distress at time two, while childhood maltreatment experiences ($\beta = .11$), and borderline personality features ($\beta = .19$) did not have significant main effects. However, the overall model accounted for an additional six percent of the variance in emotional distress scores at time two, which was a statistically significant change ($R^2 = .06, p < .05$) from model one. This indicates that borderline personality traits and childhood maltreatment experiences contributed significant change

in emotional distress following the paradigm, but neither variable predicted unique significant variance.

The final predictor variable, condition, was added in the third model. This model was also statistically significant, $F(4,81) = 10.96, p < .001$. Consistent with model two, childhood maltreatment experiences ($\beta = .11$), and borderline personality features ($\beta = .19$) were not significant predictors. Condition did not emerge as a significant predictor ($\beta = .05$) either. The third overall model did not account for any additional variance in emotional distress scores at time two ($R^2 = .00, ns$). The fourth model, which included the interaction terms, was also statistically significant, $F(6,79) = 7.77, p < .001$. Emotional distress at time one ($\beta = .49$) again emerged as the strongest predictor of emotional distress at time two. In model four, borderline personality features ($\beta = .22$) also emerged as a significant predictor, while condition ($\beta = .05$) and childhood maltreatment ($\beta = .11$) remained insignificant. However, neither of the interaction terms were statistically significant (see Table 10). The fourth overall model did not account for any additional variance in emotional distress scores at time two ($R^2 = .02, ns$).

Perceived invalidation. To test the hypothesis that the presence of invalidating behaviors would be related to higher levels of perceived invalidation among participants with higher levels of borderline personality traits and childhood maltreatment, a second hierarchical regression analysis was conducted utilizing transformed variables. Due to the theoretical assumption that condition would be a strong predictor of perceived invalidation and the empirical strength of the correlation between perceived invalidation and condition, the effects coded condition variable was entered in the first step of this hierarchical regression. The expected predictors, borderline personality traits and childhood maltreatment experiences, were entered in step 2 to test the relative contribution of these variables in the predictive value of the model. In addition to the main effects of the expected predictor variables, the third step added interactions

between condition and borderline personality traits as well as condition and childhood abuse/neglect experiences to test for potential moderator effects.

Table 10: Hierarchical Regression Examining Incremental Validity of Condition, Childhood Maltreatment, and Borderline Personality Features in Predicting Emotional Distress at Time Two

Variables	<i>B</i>	SE <i>B</i>	β	<i>t</i> -value	<i>p</i> -value
Model 1					
Constant	1.33	.01		129.63	.000
T1 Emotional Distress	.58	.10	.54***	5.88	.000
Model 2					
Constant	1.33	.01		133.53	.000
T1 Emotional Distress	.51	.11	.47***	4.69	.000
Childhood maltreatment	.09	.09	.11	1.10	.275
Borderline Personality features	.17	.10	.19	1.82	.073
Model 3					
Constant	1.33	.01		133.01	.000
T1 Emotional Distress	.51	.11	.47***	4.64	.000
Childhood maltreatment	.09	.09	.11	1.11	.270
Borderline Personality features	.17	.10	.19	1.77	.081
Condition (Invalidation v. Validation)	.01	.02	.05	.61	.547
Model 4					
Constant	1.33	.01		132.73	.000
T1 Emotional Distress	.52	.11	.49***	4.75	.000
Childhood maltreatment	.09	.09	.11	1.10	.274
Borderline Personality features	.20	.10	.22*	2.03	.046
Condition	.01	.02	.05	.59	.559
Childhood maltreatment x Condition	-.19	.17	-.11	-1.13	.262
BP features x Condition	.25	.18	.14	1.40	.165

Note. *N* = 86

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

The model in step one was statistically significant, $F(1,84) = 59.03$, $p < .001$. Condition ($\beta = -.64$) significantly predicted perceived invalidation and accounted for approximately 41 percent of the variance in participants' perceived invalidation scores ($R^2 = .41$, $p < .001$). The model in step two was also statistically significant, $F(3,82) = 21.32$, $p < .001$. Condition ($\beta = -.66$) significantly predicted perceived invalidation, while

childhood maltreatment experiences ($\beta = -.03$), and borderline personality features ($\beta = .17$) were not significant predictors. This overall model did not account for any additional variance in perceived invalidation ($R^2 = .03$, *ns*) compared to model one. This indicates that borderline personality traits and childhood maltreatment experiences did not contribute to the prediction of perceived invalidation. The third model, which included the interaction terms, was also statistically significant, $F(5,80) = 12.56$, $p < .001$. Condition ($\beta = -.66$) again emerged as the only predictor of perceived invalidation, and neither of the interaction terms were statistically significant (see Table 11). The third overall model did not account for any additional variance in perceived invalidation ($R^2 = .00$, *ns*).

Table 11: Hierarchical Regression Examining Incremental Validity of Condition, Childhood Maltreatment, and Borderline Personality Features in Predicting Perceived Invalidation

Variables	<i>B</i>	SE <i>B</i>	β	<i>t</i> -value	<i>p</i> -value
Model 1					
Constant	1.28	.02		81.05	.000
Condition	-.24	.03	-.64***	-7.69	.000
Model 2					
Constant	1.29	.02		81.90	.000
Condition	-.25	.03	-.66***	-7.90	.000
Childhood maltreatment	-.04	.13	-.03	-.31	.754
Borderline Personality features	.25	.13	.17	1.91	.060
Model 3					
Constant	1.29	.02		80.71	.000
Condition	-.25	.03	-.66***	-7.82	.000
Childhood maltreatment	-.03	.13	-.02	-.26	.794
Borderline Personality features	.23	.14	.15	1.68	.097
Childhood maltreatment x Condition	.05	.26	.02	.18	.855
BP features x Condition	-.14	.28	-.04	-.49	.628

Note. $N = 86$

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

Due to the unexpected nature of this finding, a scatterplot was created to visually examine the relationship among perceived invalidation, borderline personality features, and condition (Figure 2). This scatterplot suggests that an interaction may exist when

participants are separated by condition. It appears in the scatterplot that participants higher in borderline personality features were more likely to perceive invalidation in the invalidation condition when compared to participants with lower levels of borderline personality features, but perceived invalidation scores remained relatively consistent despite the presence of borderline personality features in the neutral condition.

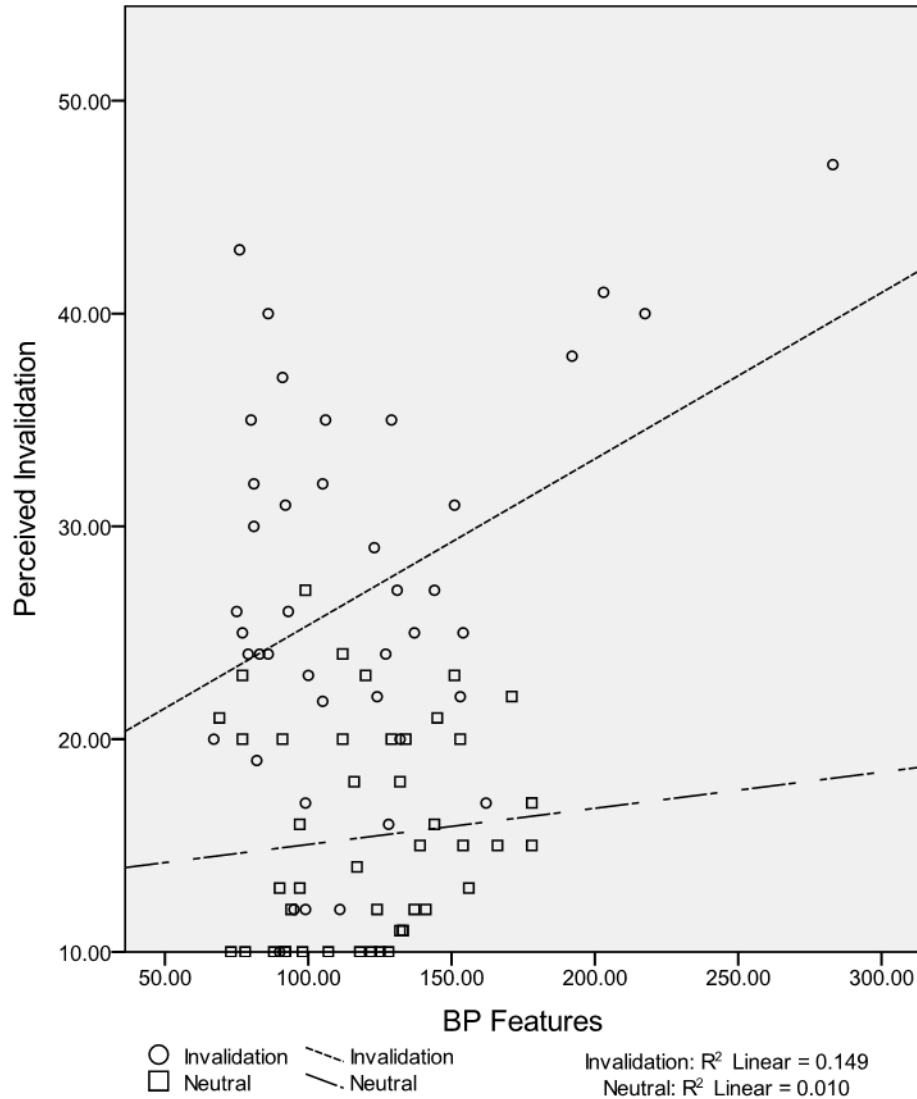


Figure 2: Perceived Invalidation and Borderline Personality Features by Condition

Discussion

This exploration into the effects of emotional invalidation had two main focuses. One purpose was to explore the effects of emotional invalidation with the use of the experimental paradigm validated in study two. This study was the first to use a paradigm designed to emphasize the interpersonal nature of emotional invalidation. The confederate and the participant engaged in a rapport building exercise at the start of the experiment in an attempt to create interpersonal connectedness. Furthermore, the use of the movie clip used in the paradigm to elicit the initial emotion from participants was chosen as the prompt because of its interpersonal nature. The interpersonal emphasis in this study was intended to build on previous research that examined the consequences of emotional invalidation through the use of a cognitive stressor task (Shenk & Fuzetti, 2011; Woodberry, Gallo, & Nock, 2008). This was also the first time that participants were asked to report on their perception of emotional invalidation that occurred during the interpersonal interaction rather than assuming that this would be perceived consistently across participants. Finally, this was the first attempt to examine the effects of invalidation in comparison to neutral responses. Previous experimental studies have compared reactions to invalidating versus validating behaviors (Shenk & Fuzetti, 2011; Woodberry, Gallo, & Nock, 2008). By comparing invalidating behaviors to neutral behaviors, the current study sought to further isolate the effects of emotional invalidation. It was hypothesized that participants randomly assigned to the invalidation condition would perceive higher levels of emotional invalidation and report higher levels of emotional distress when compared to participants in the neutral condition.

A second purpose of this study was to begin exploring the effects of emotional invalidation in individuals that may be at higher risk for perceiving invalidation. Based on research suggesting that adults who experienced childhood maltreatment have more chronic interpersonal problems (Briere & Jordan, 2009) and increased rejection

sensitivity (Feldman & Downey, 1994), child maltreatment was explored as a potential moderator between an emotionally invalidating experience and emotional distress levels. Similarly, individuals with Borderline Personality Disorder are characterized as exhibiting heightened interpersonal sensitivity, interpersonal ambivalence, and need for approval (Stepp, Smith, Morse, Hallquist, & Pilkonis, 2012), so borderline personality traits were also explored as a potential moderator between perceived invalidation and distress. This study aimed to begin examining the role that these variables have when an individual is exposed to a controlled level of emotional invalidation. It was hypothesized that participants who experienced higher levels of childhood maltreatment would report higher levels of emotional distress and perceived invalidation following the paradigm. It was also hypothesized that participants who reported higher levels of borderline personality features would experience higher levels of distress and invalidation.

Direct effects of emotional invalidation. As expected, participants who experienced the invalidation condition reported higher levels of perceived emotional invalidation compared to participants assigned to the neutral condition. This is consistent with experimental studies examining related constructs, such as ostracism, where participants who are assigned to the ostracism condition report feeling more excluded and ignored (Gonsalkorale & Williams, 2007; Zadro, Boland, & Williams, 2006; Zadro, Williams, & Richardson, 2004). However, previous experimental research on emotional invalidation (Woodberry, Gallo, & Nock, 2008; Shenk & Fruzzetti, 2011) has not measured participants' perceptions of emotional invalidation, and much of the correlational literature has assumed feelings of invalidation based on experiences of childhood maltreatment (i.e., Widom, Czaja, & Paris, 2009; Hernandez et al., 2012). Therefore, this is the first study that directly asked participants whether the invalidating behaviors delivered in the paradigm were actually perceived as invalidating. This is an important finding as it suggests that the paradigm was effective at eliciting the target

construct of perceived invalidation and allows for additional conclusions to be drawn regarding the effects of the paradigm in the context of this finding.

However, it was surprising to find that participants in the experimental condition did not experience higher levels of emotional distress following the paradigm in comparison to participants who were assigned to the neutral condition. Participants in the invalidation condition perceived that they were being emotionally invalidated, but did not show an increase in their emotional distress level following the paradigm. In fact, unexpectedly, no relationship existed between perceived emotional invalidation and emotional distress across participants.

Findings from previous experimental investigations into the effects of emotional invalidation have been split with Woodberry, Gallo, and Nock (2008) noting only “trends towards significance” in levels of emotional distress following an invalidating experience, but Shenk and Fruzzetti (2011) finding significant differences in self-reported distress, skin conductance, and heart rate among individuals who received invalidating behaviors by an experimenter. The inconsistent findings between these two studies are difficult to explain as the experimental design and implementation appear quite similar. Both studies utilized a cognitive task designed to elicit the feeling of frustration which was then met with invalidating or validating comments by an experimenter depending on the participant’s randomly assigned condition. The comments that were made in both studies appear to be very similar, and unlikely to create a difference in response. The use of a more interpersonal paradigm in the current study was anticipated to increase the impact of the invalidation, but the comparison of invalidating and neutral comments rather than the invalidating and validating comments used in the previous experimental studies may have made it more difficult to measure this effect.

Another methodological explanation for the unexpected results of the current study could be the levels of relative distress following the viewing of the video clip and

the experimental paradigm. The video clip was selected due to research demonstrating that it is consistently rated as distressing by viewers (Rottenberg, Ray, & Gross, 2007). It is possible that participants found the movie clip more distressing than the paradigm and this overshadowed any changes in distress between time one and time two. Individuals may also vary in the length of time that it takes them to recover from the distress elicited by the video clip. While random assignment should control for these individual differences, it remains unclear whether participants' level of distress at time two was due to lingering distress from the movie clip or from the paradigm. This may be particularly relevant given that Shenk and Fuzetti (2011) gave baseline distress measures prior to their cognitive stressor task. In contrast, Woodberry, Gallo, and Nock (2008) used multiple measures of emotional distress during their cognitive stressor task, and they did not find significant differences between participants who were invalidated versus those who were validated.

There were some additional methodological differences between the current study and previous experimental studies that warrant highlighting as they may provide some insight into factors that influence reactions to emotional invalidation and validation. In regards to sample differences, Woodberry, Gallo, and Nock (2008) used an all female community sample with 23 of the women identified as having five or more features of Borderline Personality Disorder and the other 18 identified as matched control participants. Shenk and Fruzetti (2011), had a sample of 60 undergraduate students with 35 females and 25 males. The heightened emotional sensitivity to separation and rejection that is characteristic of individuals with BPD (American Psychiatric Association, 2000), and findings that suggest women are more emotionally expressive and skilled at emotional recognition (Kret & de Gelder, 2012) make these findings somewhat puzzling. Shenk and Fuzetti (2011) did not report on gender differences in their study beyond noting that baseline levels were consistent between males and females. Thus, it remains

difficult to explain differences in the results of these studies based on the presence of Borderline Personality features and gender demographics. The current study was consistent with Woodberry, Gallo, and Nock's (2008) study in the use of an all female sample, but sought to examine the effects of invalidation in a more general undergraduate population consistent with Shenk and Fuzetti (2011). It is unclear whether these similarities and differences among the experimental studies are impacting the results in any systematic way.

From a measurement perspective, both groups of researchers utilized a combination between self-report and physiological measurement. They did differ in how they measured self-reported emotional distress with Shenk and Fruzetti (2011) utilizing the Positive and Negative Affective Scale (PANAS; Watson, Clark, & Tellegen, 1988) and Woodberry, Gallo, and Nock (2008) using the graphical depictions of the Self-Assessment Manikin (SAM; Lang et al., 1993). Differences in verbal and visual measurement of emotional states are not well understood, but the two forms of emotional measurement appear to be highly correlated (Bradley & Lang, 1994). Procedurally, Shenk and Fruzetti (2011) validated the presence of validation and invalidation with observational coders, but did not have any procedure in place to build rapport between the experimenter and the participant. On the contrary, Woodberry, Gallo, and Nock (2008) did not validate the presence of validation and invalidation, but they did build into the experiment a ten minute period of rapport building. It was anticipated that the use of a verbal measure of emotional states, the observational validation of the paradigm, and the use of a rapport building exercise in the current study would combine features of the previous experimental studies that would lead to an even greater effect for emotional invalidation; however, this was not the case.

Furthermore, the lack of relationship between perceived invalidation and emotional distress found in the current study is inconsistent with studies that explore

emotional invalidation in a more natural context (Yap, Allen, & Ladouceur, 2008; Cano, Barterian, & Heller, 2008). This finding is also inconsistent with correlational studies that used self-reported perceptions of emotional invalidation and emotional outcomes.

Studies that have used self-reported, retrospective accounts of childhood invalidation (Selby, Braithwaite, Joiner, & Fincham, 2008; Wedig & Nock, 2007; Krause, Mendelson, & Lynch, 2003), as well as self-report measures to evaluate current experiences of emotional invalidation during childhood (Eisenberg, Fabes, & Murphy, 1996), have consistently found negative outcomes associated with perceived invalidation.

Studies that have recorded observations between parent-child dyads and coded for emotionally invalidating behaviors have found that children who are exposed to more invalidating behaviors report higher levels of emotional distress. This pattern appears consistent across child and adolescent developmental stages and regardless of the particular affect being invalidated. For example, adolescent females who expressed positive affect and were met with invalidating behaviors by their mothers exhibited higher levels of depressive symptoms compared to adolescent females who did not receive the invalidating behaviors (Yap, Allen, & Ladouceur, 2008). In a psychiatric population, adolescents who were met with maternal invalidation during more routine discussions about daily tasks and experiences exhibited increased anger and opposition (Crowell et al., 2013). Unsupportive maternal responses to children's negative emotions during middle childhood were also related to increased internalized distress (Shipman, Schneider, & Sims, 2005). Similar findings have been reported with observations of romantic couples with distress and marital dissatisfaction reported at significantly higher rates when one or both partner engage in emotionally invalidating behaviors (Cano, Barterian, & Heller, 2008; Clements, Stanley, & Markman, 2004).

A relationship between perceived emotional invalidation or parental criticism and emotional distress has been consistently reported in studies that use participant's

retrospective self report of childhood emotional invalidation (Cheavens et al., 2005; Krause, Mendelson, & Lynch, 2003) as well as non-retrospective, correlational studies that evaluate childhood emotional invalidation (Eisenberg, Fabes, & Murphy, 1996). These studies often differ in their operational definition of emotional invalidation when compared to observational studies that evaluate the presence of invalidating behaviors during a specific interaction. Correlational studies that examine the relationship between emotional invalidation and emotional distress typically refer to childhood emotionally invalidating environments and measure invalidation as it occurs in a broader context. For example, participants may be asked to report on experiences of emotional invalidation as they typically occurred in their household throughout their childhood rather than during a particular instance. Therefore, these studies are likely measuring chronic and persistent emotional invalidation which may have a different impact on emotional and behavioral outcomes compared to more isolated instances of invalidating behaviors.

The inconsistent findings between experimental investigations into the effects of emotional invalidation (Woodberry, Gallo, & Nock, 2008; Shenk & Fuzetti, 2011), the current study, and studies that examine invalidation in a natural setting or through self-report may provide some valuable insight into particular aspects of emotional invalidation that are harmful. For example, although the current study sought to enhance the interpersonal connectedness between the confederate and the participant, the value placed on this relationship would be minimal compared to the value a person would place on their relationship with a romantic partner or a parent. As such, the relative importance of invalidating feedback provided by a confederate in a research study compared to a loved one in a natural setting could be inconsequential and may account for the lack of effect in this experimental study examining emotional invalidation.

Similarly, the chronicity of an emotionally invalidating environment and the impact this could have on a child's development, may have a cumulative effect that leads to

different levels of emotional distress following an emotionally invalidating experience. For example, it is theoretically proposed that individuals who experience chronic emotional invalidation learn that their emotional experiences are inaccurate and they begin to rely on other people's emotional responses for feedback rather than their own (Linehan, 1993). This is often behaviorally demonstrated through an increased sensitivity to the negative emotional reactions of others in individuals with Borderline Personality Disorder (Jovev et al., 2012) and individuals with childhood abuse histories (Pollak, Cicchetti, Hornung, & Reed, 2000). The increased awareness and personalization of other people's emotional responses that is theoretically linked to chronic emotionally invalidating environments would likely lead to higher levels of perceived emotional invalidation. This may help explain different results among studies that examine retrospective accounts of chronic emotional invalidation and the findings of the current study. If this explanation were accurate, one would expect to observe differences in the emotional distress level following an invalidating behavior for individuals with a history of chronic childhood invalidation. This was evaluated in the current study by examining the moderation effects of Borderline Personality features and childhood abuse experiences as these two factors are often associated with chronically invalidating environments.

Moderation of emotional invalidation.

Borderline personality features. As anticipated, participants with higher levels of borderline personality features did report higher levels of emotional distress following the experimental paradigm. This is consistent with previous research that suggests individuals with Borderline Personality features have a heightened sensitivity to negative emotional displays by others and they are more prone to a negative affective state (see Domes, Schulze, & Herpertz, 2009 for review). These two characteristics of people with borderline personality features may lead to different interpretations for the higher levels of emotional distress found in the current study. For example, one explanation for higher

levels of distress following the paradigm may be that individuals with borderline personality features experience more negative affect because they are reactive and sensitive to other's behaviors towards them which is currently part of the diagnostic criteria for BPD (American Psychiatric Association, 2000). An alternative explanation could be that individuals with higher levels of borderline personality features are consistently experiencing more negative affect, thus explaining their higher scores in emotional distress.

In fact, findings from the current study reveal that the participants higher in Borderline Personality features also reported significantly higher distress scores before the experimental paradigm. This may be due to a tendency to report higher levels of emotional distress among this population, but it could also still be due to a heightened sensitivity to negative affect. In the current study, participants' first reported emotional distress following a video validated to elicit sadness (Rottenberg, Ray, & Gross, 2007) that was of a scene in which the actors were displaying significant sadness and anger. Individuals with Borderline Personality Disorder are believed to have a heightened sensitivity to emotional stimuli and have a longer return to baseline following an emotional reaction (Linehan, 1993). It is possible that the higher level of emotional distress experienced after the video clip by individuals with more Borderline Personality features persisted into the measurement of distress after the paradigm.

Relatedly, the hypothesis that individuals with higher levels of Borderline Personality features would be *more* impacted by the invalidation paradigm was not supported. The presence of borderline personality features did not predict higher emotional distress following the experimental paradigm when the time one distress scores were accounted for in the analyses. It may be that the initial elevation in emotional distress for these individuals following the movie clip buffered any effect of the

paradigm. The invalidation paradigm may not have been personally meaningful enough to add additional distress above and beyond the distress elicited by the video.

An interesting finding in the current study that provides some preliminary support to this explanation was the relationship between an individual's susceptibility to influence and their levels of emotional distress at both time points. Consistent with an individual's overall presence of borderline personality features, individuals who reported being more likely to accept uncritically the evaluations and judgments of others had higher levels of emotional distress following the video clip and following the paradigm. However, this susceptibility to influence was the only borderline personality feature that demonstrated a much stronger correlation with emotional distress following the paradigm in comparison to immediately after the video clip. This suggests that individuals who are less discriminating in the feedback they accept from others may be at higher risk of experiencing emotional distress following an invalidating behavior. The current study suggests that it may be this personality characteristic rather than the culmination of borderline personality features that leads to more distress.

Another interesting possible explanation to these unexpected findings comes from recent research that suggests the emotional experiences of individuals with BPD are not due strictly to the environment, but rather due to a person's genetics and the environment that is evoked by these genetics (Bornovalova, Huibregtse, Hicks, Keyes, McGue, & Iacono, 2013). This new research suggests that an individual is born with a genetic predisposition that makes them more likely to elicit invalidation from others in their environment and perhaps even self select invalidating environments. The current study did not allow for the participants to elicit particular behaviors from the confederate, as the interaction with the confederate was controlled and consistent across participants. It is plausible that the effect of emotional invalidation is stronger for individuals with borderline personality features in more dynamic interactions when the individual plays a

larger role in eliciting the response. The lack of influence in the dynamics of the interaction may have been a reason that individuals with higher levels of borderline personality features did not experience the paradigm as more distressing than the video clip.

In addition to increased emotional distress, it was also hypothesized that participants higher in borderline personality features would perceive higher levels of emotional invalidation following the paradigm. This hypothesis was not supported as there was no relationship between the presence of total borderline personality features and the perception of emotional invalidation in the hierarchical regression analysis. This is an unexpected finding as it appears contrary to research suggesting that people with BPD are more perceptive and sensitive to interpersonal abandonment and rejection (American Psychiatric Association, 2000). It also seems contrary to what is proposed in the Biosocial Theory of BPD (Linehan, 1993), which suggests that people with BPD have an inherent emotional sensitivity that, when met with emotional invalidation, leads to emotional distress.

However, what appears contradictory on the surface, may actually be revealing potential elements of invalidating behaviors that contribute to the impact of emotional invalidation. Hong, Illardi, and Lishner (2011) recently found that individuals with borderline personality features were more likely to retrospectively report higher levels of pervasive environmental invalidation as well as specific invalidation in response to childhood sexual abuse. Going back to the previous points regarding specific characteristics of the experimental paradigm utilized in the current study, the different findings across studies may be due to distinctive types of invalidating behaviors. In addition to factors such as the repetition of invalidating behaviors in a chronically invalidating environment and invalidating behaviors in response to specific situations (Hong, Illardi, & Lishner, 2011), there may be more subtle nuances that create varying

amounts of emotional distress for people with borderline personality features. The personalization of the invalidating behavior, the perceived relevance of the person delivering the behavior, or its perceived harshness may all be determinants of whether an invalidating behavior leads to emotional distress.

A closer look at the specific features of BPD may also emphasize individual differences among people with borderline personality features that lead to variations in perceptions of invalidation. Individuals in the current study who reported being more likely to dramatically change their perceptions of people from a positive impression to a negative impression reported higher levels of perceived invalidation. This suggests that individuals who are more likely to dramatically change their perceptions of people are more adept at perceiving invalidation. This is consistent with research that suggests individuals with BPD are highly sensitive to perceived threats of abandonment or rejection and that they are more prone to respond aggressively to these perceived threats with marked devaluation of others (Critchfield, Levy, Clarkin, & Kernberg, 2007). These individuals may also be more willing to report that someone's behaviors made them feel invalidated and externalize these experiences, particularly if their propensity to judge and devalue others is self-serving in the sense that it promotes their own internal well-being (Roese & Olson, 2007).

A person's tendency to accept uncritically the evaluations and judgments of others was another individual difference among people with borderline personality disorder related to the perception of invalidation. Individuals who endorsed a higher susceptibility to influence also reported higher levels of perceived invalidation. Recent research looking at interpersonal problems in people with depression has found that excessive reassurance seeking and negative feedback seeking is linked to increased interpersonal rejection and depressive symptomatology (Evraire & Dubois, 2011). The reliance on feedback from others and the increased perception to rejection or

invalidation contributes to emotional distress. Interestingly, while the quick devaluation of others and susceptibility to influence were both related to the perception of invalidation, only a person's susceptibility to influence had a stronger relationship to emotional distress following the paradigm versus following the video clip.

It is important to recognize that the relationship between perceived invalidation and susceptibility to influence can also be interpreted from the other direction. It is plausible that individuals who are more cautious in their internalization of another person's feedback are also more likely to see the confederate's responses as completely external to themselves. In other words, a participant who has a secure sense of self may be having thoughts related to how incorrect the confederate's reaction is rather than paying attention to the invalidating behaviors. This participant is less likely to perceive the interaction as invalidating because she is not thinking about her own emotional reactions. It is theoretically proposed that chronic emotional invalidation is harmful because it diminishes a person's ability to validate their own emotional responses and leaves them susceptible to the interpretations of others. If a person is already secure in their emotional responses, it is likely that these invalidating behaviors would not lead them to question their emotional reaction, but rather the reaction of the confederate.

These explanations are plausible given the visual representation of the relationship between perceived invalidation and borderline personality features when participants are separated by condition. By separating the participants by condition, it is evident that the presence of borderline personality features is related to the perception of emotional invalidation. This separation may have allowed for the differences between specific borderline features (i.e., dramatic changes in perception of others, susceptibility to influence) to become more readily apparent.

Childhood maltreatment. It was hypothesized that participants who reported more childhood maltreatment experiences would perceive higher levels of emotional

invalidation following the paradigm. This hypothesis was not supported as there was no relationship between self-reported childhood maltreatment experiences and the perception of emotional invalidation. This is an unexpected finding as research suggests that people who experienced childhood maltreatment have increased fear of criticism and rejection (Maciejewski & Mazure, 2006), increased rejection sensitivity (Feldman & Downey, 1994), and increased attention to threat-related cues (Pollak & Tolley-Schell, 2003). These findings would likely suggest that individuals who experienced childhood maltreatment would show increased perception to emotional invalidation, but perhaps this sensitivity would only be relevant if the invalidation was perceived as threatening. As noted above, the paradigm used in this study may not have been threatening because the invalidating behaviors delivered by a stranger were likely not personally salient enough and/or the participant was secure enough in her own emotional reaction that she did not perceive higher levels of invalidation, despite her childhood maltreatment experiences.

A more methodological reason behind the lack of moderation for both borderline personality features and childhood maltreatment experiences could be the restricted range of scores. Individuals in the invalidation condition regardless of their experiences and personality characteristics reported higher levels of perceived invalidation, while the perception of invalidation for participants in the neutral condition was consistently low. The relative lack of variability within this sample in regards to both predictor variables as well as the somewhat bimodal distribution of perceived invalidation makes it difficult to detect any moderation effects.

It was also hypothesized that participants who reported more childhood maltreatment experiences would report higher levels of emotional distress following the experimental paradigm. The hypothesis that overall maltreatment experience would be related to emotional distress was not supported as there was no significant relationship

among total maltreatment experiences, time one emotional distress scores, or time two emotional distress scores. This lack of relationship was consistent across conditions. Thus, the hypothesis that individuals who reported more total childhood maltreatment experiences would be impacted more by the invalidation paradigm was not supported.

This finding was surprising given that there appears to be a strong relationship between child maltreatment and emotional distress in adulthood (Messman-Moore & Coates, 2007), as well as interpersonal problems, including increased interpersonal sensitivity (Briere & Runtz, 1988). As such, it was anticipated that individuals with a history of child maltreatment would be particularly sensitive to emotional invalidation both in perception and distress. Neither hypothesis was supported, which could mean that the paradigm was not meaningful enough for participants with a history of maltreatment to notice these differences or perhaps the invalidation in the experimental paradigm was so mild in comparison to their past experiences that it was not perceived as invalidation by these participants.

Similarly to individuals with borderline personality features, the relevance of different types of invalidation may be important for an abused and neglected population. Trauma survivors tend to exhibit strong emotional reactions to trauma specific reminders, but often appear emotionally numb in other situations (Wilson, 2001). Although child maltreatment often includes invalidating behaviors, the characteristics of the paradigm were vastly different from these childhood experiences. For example, the confederate was a peer and considered an equal, the participant was reminded repeatedly before the experiment began that they could make the decision to end the experiment at any time (they were in control), and the confederate's body language remained calm and nonthreatening. Most importantly, the participant would not have any reason to fear their safety which is paramount in childhood abuse experiences.

Further supporting this explanation, the only subtype of child maltreatment that was related to emotional distress following the paradigm was emotional abuse. Emotional abuse is the type of maltreatment most closely related to emotional invalidation (Allen, 2008; Kairys, Johnson, & the Committee on Child Abuse and Neglect, 2002). It has been argued that this type of abuse is at the core of all child maltreatment, and it has been linked to a variety of emotional and interpersonal problems in adulthood (Hart, Binggeli, & Brassard, 1998). Participants with a history of emotionally abusive experiences may have been emotionally triggered by the invalidation that occurred during the paradigm due to their previous experiences, resulting in higher levels of emotional distress. Interestingly, perceived invalidation was not related to a history of childhood emotional abuse, so the higher levels of distress may not be related to a heightened awareness or identification of these types of behaviors. The unique qualities of emotional abuse that appear to heighten distress following invalidating behaviors are not well understood, but the current study suggests that whatever these qualities are, they are distinctive from other forms of childhood abuse and neglect.

Another interesting explanation comes from research that suggests childhood maltreatment may play an important role in an adult's emotional regulation deficits rather than their perceived levels of emotional distress. Therefore, the use of self-reported emotional distress rather than an emotional regulation measure may partially explain the lack of moderation found in the current study. Shipman and colleagues (2007) compared emotional characteristics of maltreated versus nonmaltreated children and found that the presence of maternal invalidation did not influence the relationship between maltreatment and emotional negativity. In other words, the relationship remained strong between maltreatment and emotional negativity with or without reported maternal invalidation. However, the results of the study did demonstrate that maternal invalidation fully accounted for the relationship between maltreatment and emotional regulation

(Shipman et al., 2007). Participants who did not report maternal invalidation reported the use of emotional regulation strategies despite their history of child maltreatment, whereas participants who did report high levels of maternal invalidation had significantly more problems with emotional regulation.

In summary, while the lack of moderation for both borderline personality features and childhood maltreatment was unexpected, there are several plausible explanations for these findings. Many of the explanations are based in empirical research findings, while others may be unique to the current study and reflect some limitations of this study as well as important areas for future research. An in depth discussion of these limitations and future directions will be addressed below. Prior to this discussion, findings across studies will be examined to address the final hypothesis regarding the differentiation between invalidating behaviors and perceived invalidation.

Invalidating behaviors versus perceived invalidation. It was originally proposed to examine the strength of the relationship between participants' observation of invalidating behaviors and their perception of being invalidated during the experimental paradigm. It was hypothesized that while a relationship would exist, these two components of emotional invalidation would also be distinguishable. After a few participants completed the experiment and provided feedback during the debriefing, it was determined that including the behavioral items on the invalidation measure was contributing to participants figuring out the purpose of the study by making the deception more obvious. Data from these individuals was discarded, and the invalidation measure was changed to only include items that measured perceived invalidation (PEII). While this was a necessary change for the integrity of the study, it prohibited the direct comparison of invalidating behaviors and perceived invalidation by each participant as initially proposed.

An alternative approach to compare these constructs is to look at findings across all three of the current studies. In study one, experts in the field of emotional invalidation generally agreed upon their categorization of items that distinguished invalidating behaviors and perceived invalidation, recognizing that an invalidating behavior may or may not be perceived as emotionally invalidating. However, they varied in their stance on the importance and practicality of differentiating between these two components of emotional invalidation.

When examined together, the results of studies two and three provide preliminary support for the idea that these are distinguishable constructs. In study two, the invalidation paradigm was validated and found to have extremely high consistency among raters for the presence of invalidating behaviors. The same consistency was not reported by participants who were exposed to the invalidating behaviors in study three. While participants assigned to the invalidation condition perceived higher levels of emotional invalidation in comparison to participants in the neutral condition, there was variance in the perception of invalidation among participants in each group, especially the invalidation condition. Thus, the variability in ratings of perceived invalidation suggests that the presence of invalidating behaviors in the paradigm did not automatically lead to participants' perception of emotional invalidation.

This interpretation is consistent with findings that suggest variability in how individuals perceive critical behaviors (Peterson & Smith, 2010; Hooley & Teasdale, 1989). The perception of criticism is dependent on several internal and external experiences of the individual receiving the critical behaviors which may increase or decrease a person's emotional sensitivity to the behaviors (see Renshaw, 2008 for a review). Based on the current study's preliminary support to the idea that perceptions of emotional invalidation are distinct from emotionally invalidating behaviors, it seems plausible that the perception of invalidating behaviors as emotional invalidation may also

depend on several internal and external experiences of the behavior's recipient. Identifying what these factors are could help further our understanding of the connection between emotional invalidation and negative emotional outcomes. The inability to compare the presence of invalidating behaviors simultaneously with the perception of invalidation limits the ability to draw empirical conclusions in this area. However, the comparison of data between studies two and three may have important implications for the future study of emotional invalidation and how the field defines this construct.

CHAPTER 5: GENERAL DISCUSSION

The purpose of this study was threefold. The first objective was to critically review the way emotional invalidation is currently defined and measured in the existing literature. The second objective was to offer a novel approach at conceptualizing and measuring emotional invalidation as a two part construct comprised of emotionally invalidating behaviors and perceived emotional invalidation. The third objective was to experimentally test the effects of invalidating behaviors on a person's perception of emotional invalidation and their level of emotional distress. Theoretically, emotional invalidation has been identified as a major contributor to the development of Borderline Personality Disorder (Linehan, 1993), and years of correlational research has supported this relationship. Knowledge about the harmful consequences of emotional invalidation has expanded into other areas of psychological functioning as well, including disordered eating (Haslam, Mountford, Meyer, & Waller, 2008), relationship problems (Selby, Braithwaite, Joiner, & Fincham, 2008), and depressed mood (Krause, Mendelson, & Lynch, 2003; Wright, Crawford, & Del Castillo, 2009). The seriousness of these and other potential consequences of emotional invalidation make it an important construct to investigate.

The expert review conducted in study one supports the importance of learning more about the construct of emotional invalidation. While there was strong agreement among experts in regards to items that measure invalidating behaviors and perceived invalidation, they were not unanimous. They also collectively identified one item that pertained to physical abuse rather than an emotional reaction as an emotionally

invalidating behavior, which highlights the trend to adopt forms of child maltreatment as proxies for emotional invalidation. Furthermore, the experts in this study varied in their perspectives on separating invalidating behaviors from the perception of emotional invalidation. These inconsistencies among experts are indicative of the need for enhanced clarity of this construct.

Study two validated an experimental paradigm that emphasized the interpersonal nature of emotional invalidation. Results suggested that external observers were consistently able to detect the presence of invalidating behaviors. Study three utilized the paradigm validated in study two to experimentally explore the effects of invalidating behaviors. While participants in the invalidation condition were higher in their perception of emotional invalidation compared to participants in the neutral condition, they did not report higher levels of emotional distress. Participants' levels of borderline personality features and childhood maltreatment histories did not individually contribute unique variance in the prediction of emotional distress, but together did predict higher levels of emotional distress. In regards to the perception of emotional invalidation, neither borderline personality features or childhood maltreatment were found to be significant predictors.

Limitations

When interpreting the findings of this study, there were some potential limitations that need to be considered. One of these limitations was the reliance on participants to accurately reflect their experiences. The use of self report scales to assess for emotional distress only allowed reporting of affect in the participant's current awareness. It was possible that physiological responses indicative of distress might have occurred, but may not have been reported by participants via self report (Iacono, 1991). Also, the use of retrospective self report data for childhood abuse experiences allowed for time lapse which could potentially have resulted in less accurate memories (Widom & Shepard,

1996; Widom & Morris, 1997). While these reporting issues were potential limitations, the primary focus of this study was to measure participants' perceptions and measures were selected that have demonstrated strong reliability and validity in order to maximize the likelihood of accurate reporting.

Another limitation of the current study was the observational validity of one recording of the paradigm rather than the observation of each implementation of the paradigm. While this is recognized as a limitation, the experimenters did monitor the verbal validity of the paradigm by listening to the interaction from outside the room. In instances when the confederate detoured from the script, no data was collected at time two and data collected at time one was discarded. This happened during two administrations of the invalidation paradigm and did not occur during any of the administrations of the neutral paradigm. The validation of the paradigm in study two combined with monitored paradigm fidelity by the experimenter during each implementation in study three was done to minimize this limitation.

The deception utilized in this study was not successful with all participants. It is possible that there may be unknown commonalities among the individuals who figured out the deception. It is important to interpret the results knowing that some participants were able to figure out the paradigm and no current explanation exists as to why. These participants were all in the invalidation condition which may also demonstrate an unanticipated difference between the two conditions. While this is a limitation of the current study, overall the deception worked as planned and the vast majority of participants did not determine the purpose of the study on their own.

The generalizability of these results was limited by a few factors. First, as with any study that is exploring casual effects through an experimental design, an emphasis was placed on a controlled paradigm to maximize internal validity. A natural trade off for this internal validity is a decrease in external validity. It should not be assumed that the

results of this experimental study will transfer into naturally occurring instances of emotional invalidation. Secondly, this study focused on the effects of invalidation in women ages 18 to 24. Males and individuals at different stages of chronological development may not experience emotional invalidation in the same way that the participants did in the current study. Similarly, findings based on a college student sample may not be generalizable to a general community sample or clinical sample.

Other potential limitations exist with the sample used in this study. The skewness and kurtosis found in several variables highlights the range restriction present within this particular sample. Statistically, these issues were addressed through the use of logarithmic transformation. This range restriction also contributes to challenges in generalizing the findings of the current study to other populations of individuals who experienced childhood maltreatment as well as clinical populations. It is plausible that individuals with a clinical diagnosis of Borderline Personality Disorder would respond differently to the invalidating behaviors used in the current study. However, the use of a non-clinical sample of young adult females was chosen to examine the effects of invalidating behaviors in the context of borderline personality traits because heightened emotional sensitivity is believed to be a developmental precursor to BPD, theoretically leading to an increase in the perception of emotional invalidation (Crick, Murray-Close, & Woods, 2005; Crowell, Beauchaine, & Linehan, 2009). This allowed for the ability to examine whether the perception of emotional invalidation is greater in women who may be at risk of developing borderline personality disorder based on a greater number of borderline personality traits rather than women who currently meet full criteria for this disorder.

Strengths and Implications

Despite the limitations noted, the current study contributes to the emotional invalidation literature in several ways. First, a new experimental paradigm that

participants perceived as emotionally invalidating was created and validated in this study. This paradigm was novel in that it emphasized the interpersonal nature which theory suggests is an important component of emotional invalidation. Similarly, this study used measures that were created for the purpose of observing invalidating behaviors and measuring current perceptions of emotional invalidation. While these measures need to be tested with more rigorous psychometric procedures, they have potential for further development as items were categorized by experts in the field which is an important step in building initial content validity.

The use of these measures also marked the first attempt at differentiating between the presence of invalidating behaviors and the perception of emotional invalidation. While this study exposed some of the challenges in measuring these two constructs simultaneously, preliminary findings across studies suggest that the presence of invalidating behaviors do not automatically assume universal perception of emotional invalidation. These findings could have important implications for targeting prevention efforts aimed at helping more vulnerable individuals become less susceptible to emotional invalidation.

Finally, the findings of this study highlight some existing questions about the emotional invalidation construct. The use of an experimental design allows for the direct conclusion that the invalidating behaviors delivered in this paradigm were perceived by participants as emotionally invalidating, but they did not elicit distress. This lack of emotional distress despite the perception of emotional invalidation suggests one of two likely possibilities. The first possibility is that emotional invalidation may not be as harmful as what is suggested theoretically in the literature. However, existing correlational and naturalistic research examining emotional invalidation suggests that this hypothesis is unlikely. The second possibility is that this is a construct that is difficult to capture in a laboratory setting. The current study and the existing literature suggests

three issues that may make this explanation more plausible: 1) the distress linked to emotional invalidation appears in the literature to be dependent on a more meaningful interpersonal relationship, 2) the level of invalidation needed to elicit distress from a stranger may be greater than what is considered ethical, and/or 3) a young adult, college student sample is generally not as vulnerable to current emotional invalidation as individuals in earlier developmental stages.

Future Directions

Future research should seek to explore these potential issues in an effort to learn more about the specific aspects of emotional invalidation that may be detrimental. An experimental study that enables the invalidating behaviors to be delivered through a romantic partner or close friend could help determine whether the context of the relationship is an important factor in the effects of emotional invalidation. Studies that use behavioral coding systems to observe emotional invalidation as it occurs in more naturalistic settings would also be able to provide some clarity on the effects of emotional invalidation as it occurs in significant relationships. This would allow for observing the dynamic nature of emotional invalidation, and explore the hypothesis that some people engage in behaviors that appear to cue invalidating behaviors from others. Another advantage to these types of studies is the ability to observe of the effects of emotional invalidation in younger populations who may be more vulnerable to emotional invalidation. The developmental nature of a heightened sensitivity to emotional invalidation is unknown, which points to the need for studies that can examine the effects of invalidating behaviors across ages.

The current study also highlights the need for research that begins to differentiate the presence of invalidating behaviors and the perception of invalidation. As described by some of the expert reviewers, practical challenges exist in attempting to make this differentiation. Future observational studies can use coding systems that standardize the

presence of invalidating behaviors in each specific observation, while simultaneously asking participants to record their perception of emotional invalidation. The current study suggests that this differentiation approach may be an important area for future exploration as the same invalidating behaviors are perceived differently among participants. Learning what individual characteristics or circumstances contribute to these differences may allow for earlier recognition and intervention for individuals who are more emotionally vulnerable to invalidating behaviors.

Findings from the current study suggest that this investigation into individual's characteristics and circumstances needs to go deeper than a diagnosis of borderline personality disorder or a history of childhood maltreatment. It appears that the characteristics that influence a person's vulnerability to emotional invalidation are likely more specific. One such characteristic was identified in the current study and warrants further exploration. A person's susceptibility to influence emerged as an important characteristic that may influence people's distressing emotional experiences following invalidating behaviors. Future research is needed to explore the role that this trait may play in a person's vulnerability to emotional invalidation and to work on identifying other traits and circumstances.

Studies that examine the effects of emotional invalidation in men are also needed. Recent research suggests that men are more responsive to emotionally threatening stimuli (Kret & de Gelder, 2012) and report experiencing higher levels of negative socialization during childhood (Krause, Mendelson, & Lynch, 2003). Research examining whether these factors place men at risk of experiencing emotional distress following emotional invalidation would provide insight into gender differences that may exist in this area. Similarly, exploring the impact of emotional invalidation among people of diverse racial and ethnic backgrounds could also provide insight into cultural similarities and differences in the perception of emotional invalidation.

In general, research in the area of emotional invalidation is still in its infancy relative to other psychosocial constructs. The current study highlights the need for continued research in this area as many questions remain unanswered, and the implications for determining what makes some types of emotional invalidation harmful are significant.

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Appendix A

Proposed Definition of Emotional Invalidation and Its Components

Based on a thorough literature review that led to some concerns with the inconsistent conceptualization of emotional invalidation, a new definition for the process of emotional invalidation was developed for use in this study. I believe it is important that the definition of the process of emotional invalidation remains consistent, allows for the presence of both invalidating behaviors as well as an individual's perceptions of feeling invalidated, and can be appropriately utilized across populations as the literature expands in this area of research. In an attempt to meet these demands, I have developed the following definition for emotional invalidation and its components.

An *invalidating behavior* is proposed to be defined as an action or verbal response that minimizes, mishandles due to carelessness or ignorance, blames, or neglects to sufficiently attend to a person's emotional experience. It should be noted that this definition focuses on the behavior of the "invalidating" person and does not rely on the person receiving the invalidating behavior actually being emotionally invalidated. In fact, I believe it is the lack of separation between the behavior of the "invalidating" person and the response of the recipient that has been responsible for definitional confusion in the literature. The point is that individuals vary in their responses to these potentially "invalidating" behaviors based on their perceptions of the invalidating behavior. The definition of invalidating behavior becomes very unclear if it depends on the response of the recipient. For the second component of the emotional invalidation process, *perceived invalidation* is proposed to be defined as the interpretation that a person's feelings are unimportant, inconsequential, incorrect, or incompetent. This interaction between invalidating behaviors and the perception of invalidation is then proposed to characterize the process of *emotional invalidation* (see Figure 3).

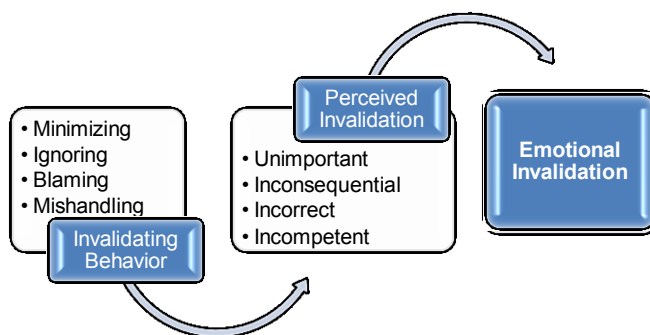


Figure 3: Redefining Emotional Invalidation

Appendix B

Measurement Items Feedback Form

Part A

Instructions: After reading the proposed new definition for emotional invalidation on page 2 of this packet, please categorize the following items into one of the three columns provided below by placing a check mark in the column you feel the item best represents. If you believe the item is not representative of emotional invalidation or is representative of both an invalidating behavior and a perception of invalidation, please check Column 3, marked "other."

Column 1: Invalidating Behaviors; Column 2: Perceived Invalidation; or Column 3: Other.

Item	1 Inv. Beh.	2 Perc. Inv.	3 Other
1. Someone said he/she did not understand my emotional reaction.			
2. Someone physically harmed me when I disagreed with his/her idea.			
3. It seemed like my emotional reaction was wrong or incorrect because of someone's response.			
4. Someone ignored me when I shared my feelings.			
5. I felt like I should forget about my feelings and move on because of someone's response.			
6. Someone used a disapproving voice tone when talking about my emotional reaction.			
7. Someone insulted my emotional reaction.			
8. Someone discouraged me from expressing my feelings.			
9. Someone verbally disagreed with my feelings.			
10. Someone's body language communicated that he/she did not want to hear about my feelings.			
11. Someone rejected my idea.			
12. Someone told me that my feelings were weak.			
13. I was told me to forget about my feelings and move on.			
14. Someone criticized my feelings.			
15. It seemed someone was discouraging me from sharing my feelings.			
16. Someone criticized my performance at work.			
17. Someone told me I should be feeling differently.			

	1 Inv. Beh.	2 Perc. Inv.	3 Other
18. Someone overreacted when I expressed my feelings.			
19. It seemed like my feelings were minimized because of someone's reaction.			
20. I felt insulted when I shared my feelings.			
21. I felt like my feelings were irrational because of someone's response.			
22. Someone seemed to disapprove of my feelings.			
23. Someone made a comment that was critical of my feelings.			
24. I felt embarrassed when I shared my thoughts with someone.			
25. Someone's response caused me to feel left out.			
26. Someone felt like my feelings were irrational.			
27. I was ignored when I shared my feelings with someone.			
28. Someone told me my feelings were unimportant.			
29. I felt embarrassed for expressing my feelings because of someone's response.			
30. Someone told me I was to blame for my feelings.			
31. Someone told me that he/she would feel differently.			
32. Someone did not want to listen to me express my feelings.			
33. It seemed like my feelings were misunderstood when I shared them with someone.			
34. Someone insulted me based on my feelings.			
35. Someone told me I was overreacting.			
36. I felt someone was being critical of my feelings.			
37. I felt like my feelings were my fault because of someone's response.			
38. I felt ignored when I shared my feelings.			
39. Someone said I should just get over my feelings.			
40. I felt like my feelings were unimportant because of someone's response.			
41. I felt weak because of someone's response to my emotional reaction.			
42. Someone reacted negatively when I disagreed with his/her idea.			
43. I was told my feelings were ridiculous.			
44. Someone rejected me because of my emotional reaction.			
45. Someone discouraged me from sharing my feelings by interrupting me.			

	1 Inv. Beh.	2 Perc. Inv.	3 Other
46. Someone rolled their eyes when I shared my feelings.			
47. I felt like someone disagreed with my feelings because of his/her response.			
48. I was told my feelings were irrational.			
49. I felt worse after I shared my feelings with someone because of his/her response.			
50. I felt like I was overreacting because of someone's response.			
51. Someone made a comment that minimized my feelings.			
52. Someone stated that my feelings were wrong or incorrect.			
53. I was told my emotional reaction was not normal.			
54. Someone told me I should feel embarrassed by my emotional reaction.			
55. Talking with someone made me feel worse.			

Part B

Instructions: Please provide any additional comments you have regarding the applicability of any item(s) and their relation to the preliminary definition of the process of emotional invalidation in the space below.

Also, please feel free to suggest additional items that represent an emotionally invalidating behavior or a perception of emotional invalidation. Please be sure to specify which component of emotional invalidation you feel the item represents.

Appendix C

Invalidating Behaviors Checklist

After watching the videotaped interaction between the questioner and the respondent, please make a mark in the **“Yes” column for any behaviors you observed** during the interaction and make a mark in the **“No” column for any behaviors you did not observe**. Thank you for your time and thoughtful consideration of each item.

Item	YES	NO
1. The questioner stated that she agreed with the respondent's feelings.		
2. The questioner stated that the respondent's feelings were wrong or incorrect.		
3. The questioner told the respondent that she was overreacting.		
4. The questioner stated that she felt strange asking the respondent the questions.		
5. The questioner confirmed that they were watching the same video clip.		
6. The questioner used a disapproving voice tone when talking about the respondent's emotional reaction.		
7. The questioner made a comment that minimized the respondent's feelings.		
8. The questioner wasn't sure about the point of the experiment.		
9. The respondent was told her emotional reaction was not normal.		
10. The questioner was neutral while listening to the respondent's feelings.		
11. The respondent expressed feeling happy after watching the video clip.		
12. The questioner told the respondent that her feelings were weak.		
13. The respondent was told to forget about her feelings and move on.		
14. The questioner criticized the respondent's feelings.		
15. The questioner was openly listening to the respondent's feelings.		
16. The questioner told the respondent that her feelings were unimportant.		

Item	YES	NO
17. The questioner told the respondent that she should be feeling differently.		
18. The questioner said the respondent should just get over her feelings.		
19. The questioner asked about the respondent's feelings.		
20. The questioner rolled her eyes when the respondent shared her feelings.		

Appendix D

PEII

*Please read each item below and fill in the bubble that reflects how much you agree or disagree with the statement using the following scale: 1 – **strongly disagree**, 2 – **disagree**, 3 – **neither agree or disagree**, 4 – **agree**, 5 – **strongly agree**. Thank you for your time and careful reflection of each item.*

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. It seemed like my emotional reaction was wrong or incorrect because of the questioner's response.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I felt like I should forget about my feelings and move on because of the questioner's response.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. It seemed like my feelings were minimized because of the questioner's reaction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I felt insulted when I shared my feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I felt like my feelings were irrational because of the questioner's response.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I felt the questioner was being critical of my feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I felt like my feelings were my fault because of the questioner's response.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I felt ignored when I shared my feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I felt like my feelings were unimportant because of the questioner's response.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I felt weak because of the questioner's response to my emotional reaction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix E

Movie Clip Reactions Form

1. What was your primary emotional reaction to this movie clip? (Please select only one.)

- Joy
- Sadness
- Anger
- Fear
- Love/Affection

2. What other feelings did you have while watching this clip?

3. Do you think most other women would share your emotional reactions to this movie clip?

- Yes
- No
- Not sure

4. How strongly did you feel the primary reaction you checked above?

- Very strongly
- Somewhat strongly
- Slightly

5. Do you enjoy watching movies that make you feel this way?

- Yes
- No
- Sometimes

Appendix F
Paradigm Scripts

Invalidation Condition

Confederate: “So, the first question is, ‘What was your primary emotional reaction to this video clip?’ Which box did you check?”

Participant responds.

Confederate: *While checking the box on the form:* “Was your clip of a boxer fighting and then he died?”

Participant responds.

“It didn’t make me feel that way. I’m not sure how you could feel that way after watching that clip. It doesn’t really seem normal to me. Whatever, we’ll just move on.” *Quickly ask the next question.* “Number 2: What other feelings did you have while watching this movie clip?”

Participant responds.

Confederate: *While writing:* “I don’t really get having that reaction either. It’s hard to believe we were watching the same clip.” “Number 3: ‘Do you think most other women would share your emotional reaction to this video clip?’”

Participant responds.

Confederate: *While checking the box:* “We’ll I sure didn’t.” “Number 4: ‘How strongly did you feel the primary reaction you checked above? Very strongly, somewhat strongly, or slightly?’”

Participant responds.

Confederate: *Checks the box and rolls her eyes.* “I don’t think you should be feeling that way at all. I really didn’t think it was that big of a deal. You must not watch many boxing movies. You kinda just need to get over it and move on.” “Do you enjoy watching movies that make you feel this way? Yes, No, Sometimes?”

Participant responds.

Confederate: “Alright. I guess we’re through. I hope you didn’t take offense to my comments. It’s not like your feelings about this really matter anyway. I’ll go tell the lady we’re through.”

Confederate gets up and calls the experimenter in from the hall.

Neutral Condition

Confederate: “So, the first question is, ‘What was your primary emotional reaction to this video clip?’ Which box did you check?”

Participant responds.

Confederate: *While checking the box on the form:* “Was your clip of a boxer fighting and then he died?”

Participant responds.

“That’s what mine was, too. I’m not sure why we were watching such an old video clip, but I guess it doesn’t really matter.” *Quickly ask the next question.* “Number 2: What other feelings did you have while watching this movie clip?”

Participant responds.

Confederate: *While writing:* “Okay. Hold on while I get those down. I’m not very fast at writing when I’m talking to someone.” “Number 3: ‘Do you think most other women would share your emotional reaction to this video clip?’”

Participant responds.

Confederate: *While checking the box:* “Okay. Next question.” “Number 4: ‘How strongly did you feel the primary reaction you checked above? Very strongly, somewhat strongly, or slightly?’”

Participant responds.

Confederate: *Checks the box and says:* “This feels like another interview. They just have me asking you different types of questions. It’s kind of strange; I wonder what this experiment is really about. Anyway, let’s move on I guess.” ‘Do you enjoy watching movies that make you feel this way? Yes, No, Sometimes?’”

Participant responds.

Confederate: “Alright. I guess we’re through. I hope you didn’t mind answering those questions. I guess that’s what we do with these experiments. I’ll go tell the lady we’re through.”

Confederate gets up and calls the experimenter in from the hall.