Daughters’ Retrospective Accounts of Paternal Invalidation in Childhood – Links to Connectedness and Disordered Eating in Emerging Adulthood

by

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ABSTRACT

DAUGHTERS’ RETROSPECTIVE ACCOUNTS OF PATERNAL INVALIDATION IN CHILDHOOD – LINKS TO CONNECTEDNESS AND DISORDERED EATING IN EMERGING ADULTHOOD

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In terms of the influence parents have on their children’s development, there is extensive literature on the mother-child relation, but a need for more exploration of the father’s role. Previous research suggests that the experience of emotional invalidation in childhood is significantly associated with social-emotional outcomes and that the paternal response to his daughter’s emotions may be of particular relevance. The current studies addressed three questions: What is the relation between retrospective accounts of paternal invalidation of emotion in childhood and connectedness in interpersonal relationships? Is there a relation between accounts of invalidation and disordered eating habits? Do authenticity and shame mediate these relations? Participants were 276 young women volunteers ranging in age from 18-25 (M = 18.45), recruited through a first-year introductory psychology course. Each participant provided ratings of paternal invalidation of emotion, authenticity, shame, and interpersonal connectedness to mothers, fathers, siblings, parents, and friends for Study 1 and ratings of restrained and emotional eating for study 2. Both paternal validation and invalidation of emotion in childhood were significantly associated with connectedness in each assessed relationship. Further analyses showed that paternal validation associations were strongest for all types of family connectedness in comparison to friends. Authenticity, (i.e., self-alienation) mediated the relation between paternal invalidation and friend connectedness. Analyses in the second study revealed that shame mediated the relation between paternal validation and both restrained and emotional eating patterns. Authenticity mediated the relation between paternal validation and emotional eating. Overall, participants reported significantly more validation than invalidation by their fathers. Theoretical and practical implications of these findings are discussed in terms of the importance of the father-daughter relationship and its relation to certain long-term developmental outcomes.
There have been many individuals who have contributed to this research as well as to my professional development.

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# Table of Contents

List of Tables ........................................................................................................... vii  
Daughters’ Retrospective Accounts of Paternal Invalidation in Childhood – Links to Connectedness and Disordered Eating in Emerging Adulthood ........................................... 1  
  Fathers and Psychosocial Development ............................................................... 5  
Study One The Paternal Influence on Interpersonal Relationships in Daughters ........... 8  
  Paternal Invalidation of Emotion and Connectedness ........................................... 13  
  Authenticity as a Mediator ................................................................................... 17  
  Paternal Invalidation and Authenticity ............................................................... 19  
  Authenticity and Connectedness ......................................................................... 20  
  Shame as a mediator .......................................................................................... 22  
  Shame and Invalidation of Emotion .................................................................... 23  
  Shame and Connectedness .................................................................................. 25  
Summary and hypotheses ...................................................................................... 26  
Method .................................................................................................................. 27  
  Participants ......................................................................................................... 27  
  Measures ............................................................................................................ 28  
  Procedure .......................................................................................................... 30  
Results .................................................................................................................... 31  
  Analytic Plan ...................................................................................................... 31  
  Descriptive Analyses ......................................................................................... 32  
  SES Results ....................................................................................................... 32  
  Correlations ....................................................................................................... 33  
  Multiple Mediation Analyses ............................................................................. 37  
    The relation between paternal validation and mother connectedness, with self-alienation and character shame serving as mediators ........................................... 37  
    The relation between paternal invalidation and mother connectedness, with self-alienation and character shame serving as mediators ...................................... 38  
    The relation between paternal validation and father connectedness, with self-alienation and character shame serving as mediators ........................................ 38
The relation between paternal invalidation and father connectedness, with self-alienation and character shame serving as mediators

The relation between paternal validation and parent connectedness, with self-alienation and character shame serving as mediators

The relation between paternal invalidation and parent connectedness, with self-alienation and character shame serving as mediators

The relations between paternal validation and sibling connectedness, with self-alienation and character shame serving as mediators

The relation between paternal invalidation and sibling connectedness, with self-alienation and character shame serving as mediators

The relation between paternal validation and friend connectedness, with self-alienation and character shame serving as mediators

The relation between paternal invalidation and friend connectedness, with self-alienation and character shame serving as mediators

Discussion

Interpersonal Connectedness in Relation to Paternal Invalidation

The Relation between Paternal Invalidation and Interpersonal Connectedness

Authenticity as a Mediator

The Relation between Paternal Invalidation and Interpersonal Connectedness

Shame as a Mediator

Limitations and Future Directions

Clinical Implications

Conclusion

Study Two The Paternal Influence on Disordered Eating Habits in Daughters

Authenticity and Shame as Mediators of the Relation between Invalidation and Disordered Eating

Authenticity as a Mediator between Emotional Invalidation and DE

Shame as a Mediator between Emotional Invalidation and DE
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary and Hypotheses</td>
<td>76</td>
</tr>
<tr>
<td>Method</td>
<td>78</td>
</tr>
<tr>
<td>Participants</td>
<td>78</td>
</tr>
<tr>
<td>Measures</td>
<td>78</td>
</tr>
<tr>
<td>Procedure</td>
<td>79</td>
</tr>
<tr>
<td>Results</td>
<td>79</td>
</tr>
<tr>
<td>Analytic Plan</td>
<td>79</td>
</tr>
<tr>
<td>Descriptive Statistics</td>
<td>80</td>
</tr>
<tr>
<td>Correlations</td>
<td>81</td>
</tr>
<tr>
<td>Multiple Mediation Analyses</td>
<td>84</td>
</tr>
<tr>
<td>The relation between paternal validation and restrained eating, with</td>
<td></td>
</tr>
<tr>
<td>self-alienation and body shame serving as mediators</td>
<td>84</td>
</tr>
<tr>
<td>The relation between paternal invalidation and restrained eating, with</td>
<td></td>
</tr>
<tr>
<td>self-alienation and body shame serving as mediators</td>
<td>85</td>
</tr>
<tr>
<td>The relation between paternal validation and emotional eating, with</td>
<td></td>
</tr>
<tr>
<td>self-alienation and body shame serving as mediators</td>
<td>85</td>
</tr>
<tr>
<td>The relation between paternal invalidation and emotional eating, with</td>
<td></td>
</tr>
<tr>
<td>self-alienation and body shame serving as mediators</td>
<td>85</td>
</tr>
<tr>
<td>Discussion</td>
<td>90</td>
</tr>
<tr>
<td>Paternal Invalidation and Disordered Eating</td>
<td>90</td>
</tr>
<tr>
<td>Authenticity as a Mediator</td>
<td>92</td>
</tr>
<tr>
<td>Shame as a Mediator</td>
<td>94</td>
</tr>
<tr>
<td>Limitations and Future Directions</td>
<td>96</td>
</tr>
<tr>
<td>Clinical Implications</td>
<td>97</td>
</tr>
<tr>
<td>Conclusion</td>
<td>98</td>
</tr>
<tr>
<td>References</td>
<td>100</td>
</tr>
<tr>
<td>Appendix A</td>
<td>119</td>
</tr>
<tr>
<td>Appendix B</td>
<td>122</td>
</tr>
<tr>
<td>Appendix C</td>
<td>123</td>
</tr>
<tr>
<td>Appendix D</td>
<td>126</td>
</tr>
<tr>
<td>Appendix E</td>
<td>129</td>
</tr>
</tbody>
</table>
List of Tables

Table 1: *Frequencies, Means and Standard Deviations For All Variables* ................. 35

Table 2: *Intercorrelation Matrix Amongst Measures* ............................................. 36

Table 3: *The Relation between Paternal Validation and Mother Connectedness, with Self-Alienation and Character Shame Serving as Mediators* ......................... 42

Table 4: *The Relation between Paternal Invalidation and Mother Connectedness, with Self-Alienation and Character Shame Serving as Mediators* .......................... 43

Table 5: *The relation between paternal validation and father connectedness, with self-alienation and character shame serving as mediators* .................................. 44

Table 6: *The relation between paternal invalidation and father connectedness, with self-alienation and character shame serving as mediators* ............................... 45

Table 7: *The Relation between Paternal Validation and Parent Connectedness, with Self Alienation and Character Shame Serving as Mediators* ................................. 46

Table 8: *The Relation between Paternal Invalidation and Parent Connectedness, with Self Alienation and Character Shame Serving as Mediators* .......................... 47

Table 9: *The Relation between Paternal Validation and Sibling Connectedness, with Self Alienation and Character Shame Serving as Mediators* .............................. 48

Table 10: *The Relation between Paternal Invalidation and Sibling Connectedness, with Self Alienation and Character Shame Serving as Mediators* .......................... 49

Table 11: *The Relation between Paternal Validation and Friend Connectedness, with Self Alienation and Character Shame Serving as Mediators* .............................. 50

Table 12: *The Relation between Paternal Invalidation and Friend Connectedness, with Self Alienation and Character Shame Serving as Mediators* .......................... 51

Table 13: *Frequencies, Means and Standard Deviations for All Variables* ................. 82

Table 14: *Intercorrelation Matrix Among Measures* ............................................. 83

Table 15: *The Relation between Paternal Validation and Restrained Eating, with Self-Alienation and Body Shame Serving as Mediators* ........................................ 86

Table 16: *The Relation between Paternal Invalidation and Restrained Eating, with Self Alienation and Body Shame Serving as Mediators* ........................................ 87

Table 17: *The Relation between Paternal Validation and Emotional Eating, with Self-Alienation and Body Shame Serving as Mediators* ........................................ 88
Table 18: The Relation between Paternal Invalidation and Emotional Eating, with Self-Alienation and Body Shame Serving as Mediators
Daughters’ Retrospective Accounts of Paternal Invalidation in Childhood: Links to Connectedness and Disordered Eating in Emerging Adulthood

There are many ways the parent-child relationship is known to shape a child’s development (Baker & Hoerger, 2012). There is, however, still a need to identify specific long-term developmental consequences with regard to certain rearing strategies (Baker & Hoerger, 2012). Within the developmental literature, how a parent responds to a child’s emotions has been identified as a key aspect in developing emotional competence (Eisenberg, Cumberland & Spinard, 1998). Broadly speaking, this emotional competence is thought to underlie many different areas of adjustment, including social competence and psychopathology (Eisenberg et al., 1998; Hoerger, Quirk & Weed, 2011). It is not surprising then, that two ways of reacting to children’s emotions in childhood, parental validation and invalidation of emotion, are both known to be associated with long-term developmental outcomes (Adrian, Zeman, Erdley, Lisa & Sim, 2011; Fruzzetti, Shenk & Hoffman, 2005; Krause, Mendelson, & Lynch, 2003). Two specific consequences that are discussed in the theoretical literature with some related evidence are interpersonal connectedness (Eisenberg et al., 1998, Blair, Perry, O’Brien, Calkins, Keane, & Shanahan, 2014; Saarni, 1999) and disordered eating (Haynos & Fruzzetti, 2011; Mountford, Corstorphine, Tomlinson, & Waller, 2007). Exploring these two domains makes sense not only from a theoretical standpoint, but also as it speaks to individual differences in different areas of overall adjustment. Moreover, looking at both mental health and social emotional adjustment supports our inclusive understanding of lifespan development (Baker & Hoerger, 2012). Focusing on both positive and negative outcomes (rather than focusing only on the negative) contributes to a more balanced research field (Wood & Tarrier, 2010; Zautra, Affleck, Tennen,
Reich & Davis, 2005). Finally, it appears that there might be similar predictors of each outcome. Therefore, the literature and findings below argued for investigating two similar models. These models explored validation and invalidation of emotion as predictors, and connectedness in interpersonal relationships and eating pathology as the potential outcomes. This overall assessment of adjustment, based on parental reactions to emotional experiences in childhood, was explored within the father-daughter relationship. Support for contextualizing these models within this particular dynamic will also be discussed below.

Broadly speaking, the influence of parents on their children’s development has been widely documented (Baumrind, 1991; Bigner, 1994; Bowlby, 1969, 1973; Chodorow 1978; Forward, 1989; Freud, 1938; Freud, 1962; Hazen & Shaver, 1987; Maccoby & Martin, 1983; Wenar, 1994; Whitfeld, 1987). More recently, attachment theory has been extended to acknowledge the role that parent relationships continue to play beyond childhood and into late adolescence. (Larose & Boivin, 1998; Rice, FitzGerald, Whaley & Gibbs, 1995; Kenny, 1990, 1987). The family context is an important factor in a string of very complex developmental processes. As such, it is critical to many developmental functions (Sroufe, 2005). The quality of parent-child relationships, though not always the direct cause of later outcomes, provides the scaffolding for the social-emotional skills, which will be necessary in other later social contexts (Sroufe, 2005).

Historically, a majority of the research on the role that parents play in their offspring’s development has focused on mothers (Becker, 1994; Bowlby, 1985; Eisenberg et al., 1998; Nielson, 2012; Parsons & Bales, 1955; Videon, 2005). Early literature paid little attention to the fathers’ influences, as this relationship was thought to be less important or less relevant to social-emotional development than that of the mother (Becker, 1994; Bowlby, 1985; Davis, 1949,
Phares & Compas, 1992; Videon, 2005), given that, historically, mothers have undertaken the majority of childcare (Nielson, 2012; Videon, 2005). However, it is necessary to understand how fathers influence their children, specifically for two reasons. First, more attention must be paid to fathers’ role in the normal development and socialization of their children (Lamb, 1975). This is increasingly true as fathers often have various responsibilities that contribute to a child’s adaptation to the social environment. This is especially true in Western societies where women have become more likely to contribute to the family’s income and as a result, care-giving tasks have become shared between mothers and fathers (Paquette, 2004). Furthermore, it is necessary to investigate the paternal contributions to the development of psychopathology, for when mother-child relationships are the focus of the majority of the research, their contribution to child and adolescent maladjustment may be overestimated, while the fathers’ potential influence is ignored (Phares & Compas, 1992). This could lead to a possible bias in the literature as mothers have tended to be blamed for negative outcomes (Caplan, 1986, 1989). In support of this, a review by Caplan & Hall-McCorquodale (1985) indicated that in an analysis of early publications from 1970, 1976 and 1982, mother-child interactions were the focus of 77% of studies examined while only 49% investigated fathers. In addition, fathers tended to be described as a positive influence while mothers never were solely described in such terms. Seventy-two types of child psychopathology were attributed to mothers with none attributed to fathers. Mothers were highlighted in specific examples of child problems at a rate of 5:1 compared with fathers.

For these reasons, there was a call to understand fathers’ contribution to their children’s development (Phares & Compas, 1992). Since then, according to Demidenko, Manion, & Lee (2014), the father-child relationship has been highlighted as important and instrumental in their
child’s lives. They point to outcomes related to paternal parenting such as quality of sleep (Bernier, Belanger, Bordeleau & Carrier, 2013), positive adolescent adjustment (Kerr, Capaldi, Pears, & Owen, 2009), well-being (Adamson & Johnson, 2013) and adolescent anxiety and depressive symptoms (Leidy et al., 2011). Because of this shift, more recently, there has been acknowledgement that fathers provide “unique and irreplaceable” (Videon, 2005, p. 56) contributions to their children’s well-being (Popenoe, 1999). This increased attention underscores the importance of the paternal contribution to child development (Videon, 2005), especially in cognitive and emotional spheres (Lamb, 1996). Still, there is a paucity of evidence about fathers’ influence on the development of social-emotional and psychological well-being in comparison to that of the mother-child relationship (Videon, 2005), especially with regards to social competence (Parke et al., 2002) and psychopathology (Phares & Compas, 1992). As such, there is a continuing need to further explore fathers’ role in these domains (i.e. social development and psychological problems; Paquette, 2004; Parke et al., 2002; Phares & Compas, 1992).

Much of the parent-child literature has focused on early child development, such as attachment (Bowlby, 1985). There is relatively less work that explores the adolescent or later life outcomes that are associated with the parent-child relationship (Allgood, Beckert & Peterson, 2012; Videon, 2005). This is possibly due to the fact that adolescence is viewed as a time when parents become less influential in comparison to peers, for instance (Videon, 2005). Moreover, as described above, the majority of the research that does assess adolescence also tends to focus on the adolescent relationship with the mother (Goodman, 2007; Phares, Fields, Kamboukos & Lopez, 2005.) Lastly, when the paternal contribution to adolescent development is explored, the literature mostly centers on the father-son rather than the father-daughter relationship.
(Bodenstein & Greeff, 2010; Ratele, Shefer & Clowes, 2012; Spjeldnaes, Moland, Harris, & Sam, 2011; Swartz & Bhana, 2009). These aforementioned issues highlight the importance of understanding the father-daughter relationship, and the implications of this relationship in later life outcomes, as there has been a historical dearth of research in this area.

**Fathers and Psychosocial Development**

Although the role of fathers traditionally has been studied less than the role of mothers, recent research has indicated that father-child relationships have implications for a sense of well-being, as well as cognitive and social development of the child (Cabrera, Tamis-LeMonda, Bradley, Hofferth & Lamb, 2000). For instance, Goncy and van Dulem, (2010) found emotional closeness with fathers was negatively related to alcohol use, alcohol related problems, and risky behaviours co-occurring with alcohol use. Furthermore, shared activity participation (i.e., activities that the child reported participating in, with his or her father, within the four weeks prior to the study) was negatively related to alcohol related problems. Early father involvement has been found to protect against long-term psychological maladjustment in adolescents from non-intact families (Flouri & Buchanan, 2003). Wintre and Yaffe (2000) demonstrated that a lack of paternal authoritativeness was associated with depressive symptomatology and perceived stress in both sons and daughters. Psychological well-being is another outcome related to the father-child relationship (Amato, 1994; Videon, 2005). Videon (2005) demonstrated that psychological well-being in adolescence is significantly influenced by the adolescent’s satisfaction with the father-adolescent relationship, both concurrently and over time. Amato (1994) showed that both boys and girls who reported more closeness with their father also reported higher levels of happiness and life-satisfaction and less psychological distress.
In terms of interpersonal outcomes, closeness to a father in childhood has been connected to longer-term marriages and close friendships, (Franz, McCleland & Weineberger, 1991), more marital satisfaction and less psychological distress (Flouri & Buchanan, 2002). Similarly, paternal care in adolescence was shown to be positively associated with relationship satisfaction later in life, while low care together with high paternal over-control was predictive of later relationship difficulties (Burns & Dunlop, 1998). Together, these studies describe a connection between certain aspects of fathering and interpersonal outcomes at different times throughout life.

Though the studies above are with regard to both sons and daughters, they provide evidence that fathers are influential in both their daughters’ and sons’ well-being, despite past research which suggests that fathers are more important in their sons’ lives (Amato, 1994; Videon 2005). Of note, much of the research also suggests that these paternal associations are independent of the maternal contribution (i.e., were measured separately from mothers or were shown to be different from maternal associations; Amato, 1994; Goncy & van Dulem, 2010; Videon, 2005), suggesting that the father-child relationship has its own, distinct influence. And though this research tended to focus on paternal impact on both boys and girls, it contributes to evidence supporting the notion that fathers influence developmental outcomes, and this influence is often still present later in life.

There is also research that specifically addresses the effect of fathers on their daughters’ development and well-being. For instance, a daughter’s academic success in college is related to the quality of relationship with her father, even more so than her relationship to her mother (Lamb, 2010). Father involvement in adolescence was shown to have a protective role against psychological distress in adult daughters (Flouri & Buchanan, 2003). Moreover, Amato (1994)
found that in young women, closeness to fathers was significantly and positively associated with happiness and life satisfaction, and negatively associated with psychological distress. Finally, Barnett, Kibria, Baruch and Pleck (1991) found that the more rewarding the reported father-daughter relationship was, the lower the daughters’ levels of psychological distress, defined by anxiety and depressive symptoms.

More recently, in their review, Allgood et al. (2012) concluded that different aspects of fathering such as quantity of time of involvement in their daughters’ lives and nurturant fathering (i.e., the affective quality of fathering) were related to daughter well-being, self-esteem, life satisfaction and psychological distress. In their own investigation, they demonstrated that from daughters’ (aged 18-21) retrospective accounts, their father’s involvement significantly impacted psychosocial development. More specifically, when daughters gave retrospective accounts of paternal relationship in childhood, higher father involvement and more nurturant fathering were positively associated with current self-esteem and life satisfaction (Allgood et al., 2012.) The authors concluded that there is some evidence to suggest that what might be most important in terms of influence on daughter outcomes is the degree of father support, love and nurturance. The results of this study are especially important for informing the current study, as they suggest that retrospective accounts of fathering are related to emerging adulthood women’s reports of their present-day lives.

In summary, early parent-child relationships set the stage for interpersonal development (Sroufe, 2005). However, there is a lack of father-daughter research (especially in late adolescence; Lesch & Scheffler, 2016) and of all family relationships, it is the least well understood and studied (Secunda, 2002). Following calls to understand the fathers’ potential influence in typical development as well as psychopathology (Lamb, 1975; Phares & Compas,
(1992), it is important to further explore the father-daughter relationship and develop a balanced view of father engagement and influence over time (Nielson, 2012).

One important aspect of the quality of the father-daughter relationship, paternal (in)validation of emotion, may be related to outcomes in emerging adulthood (Adrian et al., 2010; Fruzzetti et al., 2005; Krause et al., 2003). In the current study, the role of paternal (in)validation in social connectedness and disordered eating was investigated.

Although invalidated daughters may be at risk of experiencing both disconnectedness (Blair et al., 2014; Eisenberg et al., 1997; Katz & Windecker-Nelson, 2004; Miller-Slough, Dunsmore, Zeman, Sanders & Poon, 2017) within their relationships and disordered eating (Haynos & Fruzzetti, 2011; Mountford et al., 2007), it was expected that these relations were not direct. Two possible mediators, authenticity and shame, may help to explain the connection between the retrospective accounts of paternal responses to emotions in childhood and interpersonal connectedness and eating in emerging adulthood. They will be discussed below.

**Study One**

**The Paternal Influence of (In)validation on Daughters Interpersonal Relationships**

The construct of connectedness reflects both the quantity and quality of human relationships (Townsend & McWhirter, 2005). A sense of connectedness is related to a number of important outcomes. For instance, studies have demonstrated that family connectedness is predictive of lower risky sexual behaviours (Resnick et al., 1997; Markham et al., 2003) and that it is the one important protective factor against eating disorder and self-harm behaviours (Harris, Blum & Resnick, 1991). It seems, however, that there is limited empirical study of factors that might influence the ability to feel connected (Townsend & McWhirter, 2005). This is especially true in the context of how connectedness is affected throughout development. Townsend and
McWhirter (2005) noted that there is “tremendous utility” (p. 197) in applying the construct of connectedness in research, especially to “delineate the developmental processes that contribute to or hinder adaptive connectedness” (p. 197). It is important then to understand the possible early sources of the development of later connectedness.

There is evidence to suggest that the father-daughter bond influences interpersonal connectedness. For instance, in studies of university-aged women, having healthy relationships (i.e., secure, supportive and communicative) with fathers can help daughters to have similarly positive (i.e., emotionally intimate and fulfilling) relationships with their male partners (Nielson, 2014). In her review of the literature, Nielson (2014) suggested that a father’s influence on his daughter’s romantic relationships is often greater than the impact of a mother’s. Specifically, one study demonstrated that young adult women who rated their paternal relationship as more loving and positive sought comfort and relied more securely on their partners than those who did not (Black & Schutte, 2006). Another study found that retrospective accounts of a father’s care and protection in childhood was predictive of life-long satisfaction in marriage in terms of women’s perceptions of marital depth (Belt & Abidin, 1996). Similarly, Scharf and Mayseless (2008) conducted a study to assess whether the quality of relationships that adolescent girls had with their mothers and fathers was related to the quality of relationships with their romantic partners. The authors defined quality of relationship with the parents by the level of autonomy and relatedness the adolescent displayed during a disagreement between the parent and adolescent concerning a family matter. Mother-child and father-child dyads were observed separately. Quality of romantic relationship was defined by reports of the degree to which the adolescents could count on their romantic partner. Attachment security was measured by reports of the frequency with which they turned to their partners for support. Scharf and Mayseless (2008)
found that observations of the quality of the father-daughter relationship in late adolescent girls were positively correlated with the quality and attachment security of the daughters’ romantic relationships both concurrently and two years later. Interestingly, the positive indicators of the mother-daughter relationship were also associated with the quality of romantic relationships at first measurement. However, at the two-year follow up, only the relationship with the father was related to the positive outcomes. Moreover, these results demonstrate that the quality of the mother-daughter and father-daughter relationship were associated with different outcomes in general, suggesting distinct roles for each parent: a better maternal relationship predicted lower sexual risk indicators while more relatedness within the paternal relationship was associated with the duration of romantic relations (Scharf & Mayseless, 2008).

Evidence also suggests that the quality of the father-daughter relationship plays a role in adult social dynamics. When young women reported less warmth in their father-daughter relationship, they experienced more physiological arousal (higher cortisol levels at a baseline measurement) in general, but also in response to a problem focused discussion with a friend (Byrd-Craven, Auer, Granger, & Massey, 2012). Based on these results, the authors suggest that the father-daughter relationship is salient to the maintenance of same-sex friendships in young adulthood (Byrd-Craven et al., 2012). This is especially important, given that the authors describe this maintenance of friendships as a core developmental issue during this time. They do, however, also acknowledge that there may be other contributions to these differences, including heredity or the combined influence of the mother and father, rather than the father alone. Their results further demonstrated an association between women’s perceptions of the father-daughter relationship and their social interaction style within peer discussions (Byrd-Craven et al., 2012). Those who perceived experiencing less warm, more chaotic, rejecting or coercive interactions
with their father were more likely to focus on uncontrollable psychosocial stressors in dyadic conversation. Those who defined their relationship with the father as warm were less stressed. These findings add support to the notion that the father-daughter relationship is longitudinally associated with future social dynamics (Byrd-Craven et al., 2012). The authors highlight the need to understand more about the processes that might have implications for future social interactions.

How a parent responds to a child during times of emotional distress may have an important influence upon later interpersonal development. Specifically, their responses can differ as to the degree of validation and invalidation they display towards their children. Parental invalidation of emotional expression is said to occur when one or both parents delegitimize their child’s emotional experiences, thoughts, beliefs, desires and body sensations (Fruzzetti et al., 2005). Invalidation can occur through the denial, misperception, criticism, punishment or trivialization of the child’s experience (Fruzzetti et al., 2005; Sauer & Baer, 2010). For example, a parent may be preoccupied and misjudge or mislabel an emotion or might question its validity. There are also times when the parental response to a child’s representation of an inner experience is extreme, erratic, or inappropriate. Conversely, validation is a positive, supportive response to a child’s emotions. It includes expressive encouragement, emotion-focused reactions and problem-focused reactions (Sauer & Baer, 2010).

(In)validation is dealt with in two ways within the literature. The first refers to a set of actions that a parent directs toward a child. These behaviors are described above. However, these behaviors, per se, are typically not directly measured. Instead, the person who is the target of the (in)validating behaviors is asked to assess, through the use of questionnaires, the perceived degree of (in)validation experienced. As such, throughout this dissertation, whenever
invalidation is assessed by the target (i.e. empirically), perceived invalidation will be assumed. Whenever a more general discussion of the construct of (in)validation is offered, the discussion will refer to the behaviors of the (in)validating agent and not to the perception of the target of the (in)validation. Furthermore, although the empirical link between the perception of invalidation and the behaviors representative of invalidation has not been addressed in the research literature, it is reasonable to assume that there is, at least, some degree of correspondence between the two.

There are several known associated outcomes with regards to these types of validating or invalidating responses. Perceived invalidation is known to be associated with certain long-term emotional and behavioural difficulties (Fruzzetti et al., 2005). For instance, perceived parental invalidation is positively related to adolescent reports of both personal family distress, psychopathology, the inability to correctly identify or label one’s own emotions and to an increase in parental reporting of child behaviour problems (Shenk & Fruzzetti, 2005 as cited by Fruzzetti et al., 2005). Furthermore, Sauer and Baer (2010) found perceived parental invalidation to be positively associated with Borderline Personality Disorder (BPD) symptoms, thought suppression, and fear of emotions and that parental validation was negatively related to BPD symptoms and fear of emotions. Parental invalidation in childhood is further related to a number of problematic outcomes in adulthood such as chronic adult emotional inhibition, which, in turn, predicted reports of psychological distress including symptoms of depression and anxiety (Krause et al., 2003). Invalidation has also been implicated in the later development of BPD, and other related symptoms, such as non-suicidal self-injury and emotion dysregulation (Adrian et al., 2010; Fruzzetti et al., 2005).

In sum, the father-daughter relationship is associated with interpersonal outcomes (Belt & Abidin, 1996; Black & Schutte, 2006; Byrd-Craven et al., 2012; Nielson, 2014; Scharf &
Mayseless, 2008). One aspect of this relationship, perceived (in)validation of emotion in childhood, is associated with long-term outcomes (Adrian et al., 2010; Krause et al., 2003; Sauer & Baer, 2010). Taken together, it may be useful to explore whether such paternal responses to emotion in early childhood are related to connectedness in interpersonal relationships later in life.

**Paternal Invalidation of Emotion and Connectedness**

The relation between emotional and social processes has long been presumed (Barrett & Campos, 1987; Blair et al., 2014; Campos, Mumme, Kermoian, & Campos., 1994; Eisenberg et al., 1998; Saarni, Mumme & Campos, 1998). Within the parent-child dyad, the parent is construed as the guide for the expression of emotion by the child (Blair et al., 2014; Eisenberg et al., 1998; Shipman, Zeman, Nesin & Fitzgerald, 2003). The reaction of the parent demonstrates to the child when and what emotional expression is considered appropriate (Gottman, Katz & Hooven, 1997; Saarni, 1999). Once learned, this is taken to the broader context of other relationships, suggesting that these early parent-child experiences influence later social interactions (Eisenberg et al., 1998). Therefore, the development of emotional competence, thought to occur, in part, by way of parental reactions to emotion, is intrinsically linked to social competence (Blair et al., 2014; Eisenberg et al., 1998; Saarni, 1999). Positive socialization is said to be associated with competencies in dealing with social challenges (Zahn-Waxler, 2010) by helping the child to be emotionally regulated, emotionally positive and prepared to navigate later challenges of social interactions and the maintenance of friendships (Zahn-Waxler, 2010). The notion is that emotional competence, as socialized by parents, is vital to social competence and adaptive functioning later in life (Zahn-Waxler, 2010). By contrast, negative emotion socialization practices can have impact on preexisting vulnerabilities, such as heightened
negative emotionality, which may contribute to the development of psychopathology (Zahn-Waxler, 2010).

One important aspect of this process, as it relates to social competence, is how a parent responds to the expression of negative emotion in childhood (Eisenberg et al., 1998). For instance, evidence suggests that the experience of frequent supportive parental responses (i.e., validation, problem-solving, emotion coaching, etc.) is related to increased social functioning and coping (Eisenberg, Fabes & Murphy, 1996), higher social competence (Miller-Slough et al., 2017), more positive peer relationships (Katz & Windecker-Nelson, 2004) and increased positive friendship quality (Blair et al., 2014). Negative (or unsupportive) responses (i.e., minimizing, dismissing) to children’s negative emotions has been linked with negative social and emotional outcomes (Eisenberg et al., 1996; Gottman et al., 1997).

Given the aforementioned associations between such reactions to emotions and social outcomes, both validation and invalidation of emotion in childhood are expected to be related to a sense of connectedness in interpersonal relationships later in life. Though these studies speak to social competence in the peer realm, it is also thought that parental response to emotion may play a role in the quality of the parent-child relationships (Eisenberg et al., 1998). For the purpose of the current study, the parental response to emotion is presumed to impact various interpersonal relationships, including peers, parents and siblings. Each relationship in its association with parental response to emotions was explored separately, given that connectedness is presumed to vary and be experienced as relationship specific (Barber & Schluterman, 2008; Branje, van Aken, & van Lieshout, 2002; Neff & Harter, 2003).

Though there are no studies directly linking paternal validation and invalidation of emotional expression and later connectedness in interpersonal relationships, there are theories in
the literature delineating how a caregiver’s responsiveness, availability, and support in the early stages of development, especially in times of emotional distress, become the precursors that lead to proximity seeking and positive affect with the primary caretaker (Ainsworth, 1989; Kohut, 1977; Kohut & Elson, 1987). These behaviours are also reflected in connectedness later in life (Karcher, Holcomb & Zambrano, 2006) as they serve as exemplars for how to maintain connection with others.

Moreover, in Karcher, Holcomb and Zambrano’s (2006) description of connectedness, early experiences with primary caregivers are the precursors for the development of esteem, confidence, relatedness and belonging, positive attachment (Ainsworth, 1989; Kohut, 1977) and feelings of relatedness. These are thought to act as guides for later connectedness to others (Tolman, Diekmann, & McCartney, 1989).

Similarly, Fruzzetti, Shenk, and Hoffman (2005) hypothesized that when parents invalidate children, the children will be markedly hindered in learning effective emotion skills, and will tend to invalidate themselves. Potential friends, and partners will see their consequential mislabeling or inaccurate expression of emotion as overly reactive, chaotic or unpredictable, making it hard for others to appropriately validate them. They may have extreme interpersonal styles such as over giving, feeling exploited, mistrusting others, or responding negatively to positive interactions because of self-loathing, thus, creating chaotic patterns within relationships. Invalidated individuals may also use escape behaviours, such as anger, aggression, shame or withdrawal to regulate their emotions, which will interfere with the creation and maintenance of stable, reciprocal relationships (Fruzzetti et al., 2005).

The above studies (Blair et al., 2014; Eisenberg et al., 1997; Katz & Windecker-Nelson, 2004; Miller-Slough et al., 2017) and theoretical arguments (Eisenberg et al., 1998; Barrett &
Campos, 1987; Campos et al., 1994; Fruzzetti et al., 2005; Karcher et al., 2006; Saarni et al., 1998; Zahn-Waxler, 2010) suggest a direct relation between (in)validation and a sense of connectedness. How a parent responds to a child’s emotion provides feedback regarding the appropriateness of the emotion according to that parent; it is a model of how to behave when one does not like the expression of emotion by another. This is consistent with the functionalist approach to children’s emotional development, which states that children are socialized by parents to know the appropriateness of different emotional displays (Barrett & Campos, 1987; Campos et al., 1994; Saarni et al., 1998). This could influence the motivation to take the same emotional expression out into the wider social world of peers and other adults. Essentially, the parental response communicates to the child what to expect when expressing certain emotions. This feedback guides their future emotional expression (Denham, 1998; DePaulo, 1991; Underwood, Coie & Herbsman, 1992). If emotional expression is praised, the child is likely to feel a sense of pride and personal esteem for being a competent actor and will learn that their strategy for displaying this emotion is adaptive (Shipman et al., 2003); if invalidated, the child may learn that it is not safe to feel or display one’s genuine emotions, but rather it is better, perhaps safer, to disconnect from that internal experience in an effort to avoid display. This is consistent with research that suggests that children are more likely to express their emotions when there is an expectation of support after the display (Fuchs & Thelen, 1988; Shipman & Zeman, 1999, 2001), thus, allowing them to become more emotionally aware (Saarni, 1999). On the other hand, negative parental reactions may culminate in a child not displaying emotions (i.e., being inauthentic), in part to avoid invalidation in the future.

The functionalist perspective argues that children will learn to manage their emotional displays to adapt to their environment (Shipman et al., 2003), so perhaps detaching from their
own emotional experience becomes adaptive in invalidating environments. Invalidation might also generate feelings of shame as the child realizes that she has displayed an emotion that was unworthy, problematic or inappropriate, and, thus, missed the emotional mark (Eisenberg et al., 1998).

In summary, the complex process of parental feedback and the child’s response to this feedback that may result in the development of shame (Fruzzetti et al., 2005; Lewis, 2003; Teyber, McClure & Weathers, 2011; Trepal, Boie & Kress, 2012) and inauthenticity (Fruzzetti et al., 2005; Trepal et al., 2012; Wood, Linley, Maltby, Baliousis & Joseph, 2008). Brown (2006) and others (Dorahy, 2010; Frey, 2013; Jordan, 1997; Lopez & Rice, 2006; Maine, 2001; Mauss et al., 2011) have hypothesized that shame and authenticity are, in turn, linked to social connectedness. Thus, the quality of parent-child relationship may set in motion very complex developmental processes and, may not always directly influence later outcomes (Soufre, 2005). The purpose of this study was, therefore, to understand a potential mechanism for how (in)validation may affect connectedness. Shame and authenticity were proposed as mediators of the (in)validation – connectedness relation. Support for this model will be discussed below.

Authenticity as a Mediator

Existential, humanistic and psychodynamic writers have long documented the importance of authenticity, noting its necessity in understanding the human condition (Horney, 1951; May, 1981; Rogers, 1959, 1964, 1980; Winnicott, 1965; Yalom, 1980). These researchers saw authenticity as the “very essence of well-being and healthy functioning” (Wood et al., 2008, p. 386). Despite this, the empirical study of authenticity has historically been neglected (Wood et al., 2008). However, one recent study demonstrated that authenticity is a strong predictor of well-being, defined as self-esteem, life satisfaction, positive affect, autonomy, environmental mastery,
positive relations with others, personal growth, purpose in life and self-acceptance (Wood et al., 2008).

Authenticity can be conceptualized as the “(a) consistency between a person’s primary experience, (b) their symbolized awareness, and (c) their outward behaviour and communication” (Barrett-Lennard, 1998, p. 82). Within this conceptualization, authenticity consists of three components; self-alienation, authentic living and accepting external influence.

Self-alienation refers to the extent to which there is a mismatch between parts (a) and (b) or more specifically, the lack of consistency between the true inner experience and the conscious experience (i.e., the representation of the actual physiological states, emotions and schematic beliefs in conscious awareness; Wood, et al., 2008). The suggestion here is that there is an actual experience (i.e., a primary experience; the true self) and the conscious awareness (symbolized awareness) of that experience. According to Wood et al. (2008), there always is a mismatch to some degree (i.e., it is never possible to have complete awareness), with higher degrees of mismatch relating to psychopathology (Wood et al., 2008). Self-alienation is the subjective experience of feeling out of touch with oneself (Wood et al., 2008).

The second aspect, authentic living, refers to the congruence between the internal experience and outward expression of the inner emotions, beliefs, cognitions, and states. Accepting external influence refers to the extent to which an individual internalizes, and believes that they must conform to others’ influence and expectations. Accepting external influence is thought to possibly impact both feelings of self-alienation and the ability to live authentically (Wood et al., 2008).
**Paternal invalidation and authenticity.** Since invalidation from a parent may lead to difficulty identifying or knowing one’s own private experience (Fruzzetti et al., 2005), and authenticity, as described above, requires this understanding of the ‘self’ at the most basic level (May 1981; Yalom, 1980), it follows that invalidation may be related to difficulties with authenticity. For instance, if a child expresses worry about a particular situation, and her father’s response is to minimize or deny it, by saying it is not as important as the child is thinking, it seems plausible that his daughter will be confused about her experience. She had identified some aspect of her internal experience only to be met with a caregiver’s differing response. Over time, the continuing experience of paternal invalidation may leave a daughter so confused about her emotions that she become less confident accessing her own inner world.

Furthermore, the experience of invalidation will not teach individuals to discriminate between their own thoughts and needs and their caregivers’ thoughts and needs, thus contributing to difficulty in identifying their own needs, emotions and thoughts (Fruzzetti et al., 2005). Fruzzetti et al. (2005), in their description of invalidation, posit that there is a loss of the sense of ‘self’ through this experience (Fruzzetti et al., 2005). The distinction between children’s own experiences and their parents’ could be diminished if they are expected to feel what their caregiver wants rather than their own emotions. This experience may make it difficult to access one’s true experiences (Fruzzetti et al., 2005), which is essentially the defining aspect of self-alienation. Wood et al. (2008) also state that self-alienation is affected by parents introjecting their views. Consistent with these perspectives, psychodynamic theory has linked the accepting of external influence during childhood and self-alienation (Horney, 1951; Winnicott, 1965).

Despite the above theoretical literature, there is a need to investigate the developmental antecedents to authenticity and the kinds of environments that might result in authenticity (Wood
et al., 2008). Self-alienation has indeed been viewed as the core of authenticity (May, 1981; Yalom, 1980). It may be that when a father does not respond to his daughter’s emotions in a manner which teaches the child about her own internal experience, she will eventually have the subjective experience of being out of touch with or alienated from her inner self (Fruzzetti et al., 2005), and therefore, lack authenticity (Wood et al., 2008). The possible empirical link between these two constructs has not been previously assessed.

**Authenticity and connectedness.**

Classical counseling perspectives have suggested that authenticity is not only an antecedent to well-being, but that it is at the core or is the very essence of well-being and healthy functioning (Horney, 1951; May, 1981; Rogers, 1961; Winnicott, 1965; Yalom, 1980). Studies have demonstrated that greater self-alienation is related to lower levels of hope in children (Harter, Marold, Whitesell & Cobbs, 1996) and more intense PTSD symptoms after interpersonal trauma (i.e. in those who had previously experienced political imprisonment; Ehlers, Maercker & Boos, 2000). Neff and Harter (2002) found feeling inauthentic was related to higher levels of depression and lower self-esteem for adult couples in romantic relationships.

With regards to connectedness specifically, there is less direct evidence. Theoretically, in cultural theory, authenticity is seen as a central tenant of how growth-fostering relationships, or relatedness, occurs (Frey, 2013). Authenticity, or the ability to represent one’s feelings, experiences, and thoughts are what foster healthy, protective connections (within a therapeutic relationship; Frey, 2013; Jordan, 1997; Maine, 2001). Lopez and Rice (2006) found a link between authenticity within a relationship and relationship satisfaction in a sample of undergraduates who were in current romantic relationships. The results of another study showed that when a sample of undergraduate students reported feeling more authentic within their social
roles (i.e., their personal characteristics matched their assigned roles) in a group setting, they were more connected to the group overall (Bettencourt & Sheldon, 2001). Finally, Mauss et al., (2011) found authenticity to be related to social connectedness. Specifically, they showed that the authentic display of an individual’s positive emotions increased social connectedness in a sample of undergraduate students (Mauss et al., 2011). This result was attributed to the fact that the function of emotional communication is to facilitate interaction and create relationships (Frijda & Mesquita, 1994; Keltner & Haidt, 1999). Within this framework, the intention of a coherent display of emotion (one that is matched to the actual experience) is to appropriately communicate one’s internal state, which likely conveys an important interpersonal message. Accurately displaying behaviours consistent with positive emotions, for instance a smile, serves to communicate interest in affiliation and approachability (Anderson, Keltner, & John, 2003; Borkenau & Liebler, 1992; Frank, Ekman, & Friesen, 1993; Frijda & Mesquita, 1994; Keltner & Haidt, 1999; King, 2000; Shiota, Campos, Keltner, & Hertenstein, 2004). Based on this, the tendency to disassociate the felt experience from displayed behaviour disrupts effective communication and intent, and is thought to lead others to perceive an individual as inauthentic, and therefore untrustworthy (Boone & Buck, 2003; English & John, 2013). This, in turn, decreases a sense of closeness or commitment for relationships partners (Butler et al., 2003; Mauss et al., 2011).

Based, in part, on the aforementioned rationale, it could be that difficulties with authenticity interfere with connectedness, and therefore to appropriately connect to others with one’s genuine self (Mauss et al, 2011). Thus, a daughter who is not validated as a child may struggle to identify and know her internal experiences (Fruzzetti et al., 2005; Trepal et al., 2012). This may make it difficult to connect to others as a lack of authenticity has been shown to
influence closeness or connectedness within relationships as it interferes with the appropriate emotional communication intended to make a person seem trustworthy and unpredictable (Butler et al., 2003; Mauss et al., 2011). Authenticity fosters healthy connections (Frey, 2013; Jordan, 1997; Maine, 2001) and therefore an inability to know, and as a consequence demonstrate one’s internal experience appropriately. As a result, this inauthenticity could cause a disconnect within important relationships (Butler et al., 2003; Mauss et al., 2011). Therefore, in the context of the current study, it is hypothesized that self-alienation served as a mediator of the relation between paternal invalidation of emotion in childhood and emerging adult daughter connectedness. It’s potential as a mediator variable was considered given that according to the literature reviewed, it seems to be one potential outcome of invalidation (Fruzzetti et al. 2005; Trepal et al., 2012; Wood et al., 2008), and a predictor of interpersonal connectedness (Frey, 2013; Jordan, 1997; Lopez & Rice, 2006; Maine, 2001; Mauss et al., 2011). As such, it was predicted to be intermediate in the causal sequence (i.e., result from and lead to) of the invalidation-connectedness relation (Mackinnon, 2011).

**Shame as a Mediator**

Shame is well recognized as playing an important role in a wide range of health issues, including mental health (Brown, 2006). Shame can be defined as “an intensely painful feeling or experience of believing we are flawed and, therefore, unworthy of acceptance and belonging” (Brown, 2006, p. 45). Teyber, McClure, and Weathers (2011) suggest that shame can involve feelings of inadequacy, incompetence or lacking in substance or worth. Shame is thought to be grounded in a socio-cultural context (Brown, 2006; Crowe, 2004). Therefore, what is experienced as shameful is partially determined by what others deem appropriate. Shame can be
conceptualized as focused on independent aspects of the self, such as one’s character, body or behaviour (Andrews, Qian & Valentine, 2002.)

**Shame and invalidation of emotion.** How children feel about themselves may stem from the internalization of parental experiences and messages (Eisenberg et al., 1998). There is an extensive literature on how negative experiences with parents influence the development of a shame-prone sense of self (Mills, 2005; Teyber et al., 2011). In terms of empirical evidence, invalidation in the form of rejection, punishment, or dismissal of a child’s emotions is associated with insecure attachments (Cassidy, 1994). These, in turn, are associated with a shame-based sense of self (Gross & Hansen, 2002; Lopez et al., 1997; Schore, 1994, 1996; Stolorow, 2007). Moreover, children with parents who were prone to coach the display of emotions were better at regulating emotional and autonomic arousal later in life than were those whose parents were dismissive and denied negative emotions. These skills are thought of as likely protective against shame (Gottman, Katz & Hooven, 1996, Gottman et al., 1997; Mills, 2005). Finally, parental distress following the display of emotion in childhood has also been highly correlated with adult psychological distress later in life. Krause, Mendelson and Lynch (2003) suggested that psychological distress that results from such experiences is likely due to shame. This shame is said to have led to severe emotional inhibition in an attempt to protect the caregiver from the original response, which caused distress (Krause et al., 2003).

As this evidence suggests, a child’s initial experience with what is considered appropriate may be communicated by caregiver responses in the early parent-child relationship (Teyber et al., 2011). For instance, a parent’s sensitive and affectively tuned response to a child’s experience can provide that child with information about how to act while also communicating that they are secure in the parent’s love. Negative responses, such as ridicule, which may be
lacking in security and attunement, are thought to lead to negative outcomes, as the child does not receive the communication that supports a sense of self (Teyber et al., 2011). As such, the developmental pathway for the phenomenology of shame is typically theorized as stemming from problematic caregiver responses. It is often theorized that when children’s experiences and emotions are met with invalidating parental responses, children may consequentially develop a sense of shame and unworthiness (Fruzzetti et al., 2005; Lewis, 2003; Teyber et al., 2011; Trepal et al., 2012).

Trepal, Boie and Kress (2012) suggested that negative parental responses within the parent-child relationships signal to the child that others do not value their inner experiences. This may generate a sense of unworthiness, an important feature of shame (Lewis, 2003). Moreover, such responses by attachment figures are thought to contribute to the child’s subsequent evaluation of the self as a failure, another important feature of shame (Lewis, 2003), as rejection by a loved one is perceived to be an uncontrollable rejection of the self (Mills, 2005). Furthermore, invalidation may lead to the eventual replacement of primary emotions, which are adaptive and occur without self-reflection or consciousness, such as joy and anger (Lewis, 2003) with secondary emotions, such as shame, as a reaction to the invalidated primary response (Greenberg & Safran, 1989). Finally, the role of invalidation in the development of shame is discussed in most borderline personality disorder (BPD) models, linking invalidation, shame and the development of psychopathology (Cole, Llera & Pemberton, 2009; Crowe, 2004; Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2010; Rüsch et al., 2007).

Taken together, the associated evidence and theoretical discussions implicate a possible relation between invalidation of emotion and the development of an individual who may be prone to shame. For instance, invalidation from a parent may suggest to a child that they are
unworthy or inadequate (Lewis, 2003; Trepal et al., 2012), or it may cause secondary emotions such as shame (Greenberg & Safran, 1989; Lewis, 2003). Some associated evidence supports this link (Gross & Hansen, 2002; Gottman et al., 1996, 1997; Lopez et al., 1997; Mills, 2005; Schore, 1994, 1996; Stolorow, 2007). The current study therefore investigated the link between invalidation of emotion and shame, specifically in the context of the father-daughter relationship.

**Shame and connectedness.** Shame is related to a number of negative psychological outcomes, including social anxiety, depression, aggression and immune-related health problems (Mills, 2005). Indeed, it appears that shame may lead to an individual feeling isolated, and withdrawing from the world (Brown, 2006; Lewis, 1971; Scheff, 2012). According to one study, women reported feeling psychologically isolated as a result of shame (Brown, 2006). When participants felt ashamed, they spoke of forfeiting connection with friends, partners, and colleagues and withdrawing from the world around them (Brown, 2006). In another study, lifetime shame was predictive of relationship disconnectedness in a sample of participants attending a trauma treatment service (Dorahy, 2010). The authors suggest that shame, which often triggers social withdrawal and avoidance (Nathanson, 1992), is related to interpersonal difficulties (Dorahy, 2010) and the severing of interpersonal connections (Blum, 2008).

Together, these findings support the possibility that that one important outcome of shame may be a lack of interpersonal connectedness.

The discussion above may imply that the development of shame is a mediator of the relation between a father’s reaction to emotions in childhood and a daughter’s later sense of connectedness in interpersonal relationships. For instance, it may be that a daughter who experiences paternal invalidation of emotion as a child develops a more shame-prone sense of self over time, if such caregiver responses signaled that her emotional experiences were invalid,
that is, unworthy (Gross & Hansen, 2002; Lopez et al., 1997; Schore, 1994, 1996; Stolorow, 2007). This resulting shame, may cause one to withdraw from social connections later in life (Brown, 2006). Given that shame is hypothesized to be the result of invalidation, which then leads to disconnectedness, shame will be investigated as a mediator (MacKinnon, 2011) in the paternal invalidation-connectedness relation. Moreover, discussions point to the fact that invalidation, or the messages communicated from a parent, can generate a sense of inadequacy or unworthiness about one’s self, or one’s inner experience (Eisenberg et al., 1998; Lewis, 2003; Trepal et al., 2012). As such, character shame or shame about the self (e.g. shame about one’s personal, non-physical characteristics, will be considered representative of the shame hypothesized to mediate the invalidation-connectedness relation. The current study assessed this model within the father-daughter relationship.

**Summary and Hypotheses**

In sum, previous work has documented the need for further research on the paternal role (Videon 2005), especially in terms of social development (Paquette, 2004) and with regard to late adolescent daughters (Lesch & Scheffler, 2016; Nielson, 2012; Secunda, 2012). There is some evidence to date showing that the father-daughter relationship is associated with certain long-term outcomes (Allgood et al., 2012; Amato, 1994; Barnett et al., 1991; Flouri & Buchanan, 2003; Lamb, 2010), including those related to interpersonal relationships later in life (Belt & Abidin, 1996; Black & Schutte, 2006; Byrd-Craven et al., 2012; Scharf & Mayseless, 2008). One aspect of the parent-child dynamic that seems to have gained particular interest in recent years is how a parent responds to his child’s emotions (validation versus invalidation; Eisenberg et al., 1988; Sauer & Baer, 2010). The potential association of such reactions in childhood to one specific social development outcome, interpersonal connectedness, stems from both the need to
further understand adjustment in terms of child-rearing practices (Baker & Hoerger, 2012). Moreover, there is some argument for the link between responses to emotions and connectedness within the literature (Eisenberg et al., 1998; Barrett & Campos, 1987; Campos et al., 1994; Fruzzetti et al., 2005; Karcher et al., 2006; Saarni et al., 1998; Zahn-Waxler, 2010). In further exploration of this direct relation, there may be two potential mediators of invalidation that are implicated in the resulting lack of connectedness. These concepts are authenticity (Frey, 2013; Fruzzetti et al.; Jordan et al., 1997; Lopez & Rice, 2006; Maine, 2001; Mauss et al., 2011; Saarni, 1999; Trepal et al., 2012; Wood et al., 2008) and shame (Eisenberg et al., 1998; Brown, 2006; Dorahy, 2010; Fruzzetti et al., 2005; Lewis, 2003; Teyber et al., 2011; Trepal et al., 2012).

The aim of the current study was, therefore, to delineate a model that describes the relation between paternal invalidation of daughters’ early emotional expression and emergent adult interpersonal connectedness. It is hypothesized that the greater the degree of paternal emotional invalidation, the less connectedness that daughters will feel within their interpersonal relationships in their emergent adult years. Furthermore, given that there is some related evidence pointing to authenticity and shame as outcomes of invalidation (Fruzzetti et al., 2005; Gross & Hansen, 2002; Lopez et al., 1997; Schore, 1994, 1996; Stolorow, 2007; Wood et al., 2008) and predictor of connectedness (Brown, 2006; Frey, 2013; Lewis, 1971; Lopez & Rice, 2006; Mauss et al., 2011; Scheff, 202, Dorahy, 2010), it was hypothesized that these two variables will serve as mediators of the relation between invalidation and connectedness.

Method

Participants

Participants were 276 young women volunteers enrolled in a first-year university introduction to psychology course in the Fall 2014 semester. Emerging adulthood has been
considered to be a distinct phase in Western culture and a time when individuals have the opportunity to reflect back on family relationships in an effort to make observations that will influence their adult identities (Allgood et al., 2012; Arnett, 2000). During this identity exploration, it is thought that individuals will often look back while preparing for the challenges of adulthood, making it a good time to collect retrospective accounts of parenting (Arnett, 2000). A university sample of emerging adult daughters was used in this study as university attendance can help to afford the identity exploration that is key to emerging adulthood (Arnett, 2016; Schwartz, Cote & Arnett, 2005).

Age of the participants ranged from 18 to 25, with a mean age of 18.45 (SD = 1.01). The majority of the sample reported having parents who were married (64.9%), with the remainder being divorced (18.8%), separated (8.3%), single (3.6%), or common-law (1.1%). The majority of the sample reported that they were Caucasian (79.3%) in comparison with Asian (6.9%), Bi-Racial (3.3%), other (3.3%) or Black (1.1%).

Measures

The Socialization of Emotion Scale (SES; Krause et al., 2003; Appendix A) is a measure of perceived parental validation of children’s displays of negative emotions. It is a retrospective, adult report of maternal and paternal response to negative emotion. The scale was shortened from its original form by Sauer and Baer (2010) to 33 items that refer to six scenarios of upsetting typical childhood events (e.g., “If I lost some prized possession and reacted with tears,” or “If I was at a park and appeared on the verge of tears because the other children were being mean to me and wouldn’t let me play with them”). The scale was administered twice, corresponding to mother and father responses separately on how each parent would have responded in five or six different ways, depending on the scenario. Items are rated on a 7-point
Likert scale. Each of the potential parental responses corresponds to either a validating or invalidating response (i.e., one or the other; cannot be both). As such, the SES generates separate scores for validating and invalidating scales overall. An average of the total items for each scale is then calculated. In the current study, validation and invalidation scales were analyzed separately for father data only. Chronbach’s alpha for each scale was calculated for the current study as follows: SES Paternal Validation (PV) was .96 and SES Paternal Invalidation (PI) was .94. These responses were used to represent the experience of validation/invalidation, based on the thought that it is as important to understand the narrative that an individual makes of their situation in order to understand its impact (Mountford et al., 2007).

The Authenticity Scale (Wood et al., 2008; Appendix B) is a 12-item questionnaire measuring dispositional authenticity, divided into three subscales; self-alienation (“I don’t know how I really feel inside”), accepting external influence (“other people influence my greatly,”) and authentic living (I am true to myself in most situations”). Internal reliability ranged from .70 to .86 over 3 samples (Wood et al., 2008). Items are rated on a 7-point Likert scale (from 1= “does not describe me at all” to 5 = “describes me very well”). For the purpose of this study, as described in the literature review and hypotheses above, only the self-alienation scale was used to represent authenticity. The internal consistency of this scale was .78 (Wood et al., 2008). Chronbach’s alpha for the self-alienation (S-A) scale was calculated in this study as .87.

The Experience of Shame Scale (ESS; Andrews et al., 2002; Appendix C) is a 25- item questionnaire measuring shame on three subscales; behavioural (“Have you avoided people who have seen you fail?” Cronbach’s alpha = .87), characterological (“Have you ever felt ashamed of the sort of person you are?” Cronbach’s alpha = .90) and bodily shame (“Have you ever felt ashamed of your body or any part of it? Cronbach’s Alpha = .86). The ESS also assesses a
specific disposition to experience shame (total score; Cronbach’s alpha = .92). Items are ranked on a 4-point Likert scale (from 1 = “not at all” to 4 = “very much”) based on their occurrence in the past year. For the purpose of this study, the generated characterological score (i.e., shame about personal habits, manner with others, the sort of person you are, and personal ability) was used for analyses, intending to capture shame about the ‘self’ (as per the literature review and hypotheses). In accordance with the literature review, the concept of character shame, as it is defined by feeling ashamed of one’s personal, non-physical characteristics (Andrew et al., 2002), was used in this study. Cronbach’s alpha for the characterological scale (S–CH) was .91.

The Hemingway Measure of Late Adolescent Connectedness (Karcher, 2003; Appendix D) is used to measure positive connection in late adolescence. The scale is a 75-item questionnaire for university age individuals that assessed connectedness to mother (Cronbach’s alpha = .80), father (Cronbach’s alpha = .84), parents (Cronbach’s alpha = .74), siblings (Cronbach’s alpha = .86) and friends (Cronbach’s alpha = .83). Ratings are based on a 5-point Likert scale that assesses how true a statement is from (1= “not at all” to 5 = “very true”). Examples of items include “spending time with my friends is the best part of my day” and “I enjoy spending time with the elders in my family (like my parents)”. Chronbach’s alpha for each scale were calculated as follows: mother connectedness (MConnect) was .85, father connectedness (FaConnect) was .85, parent connectedness (Pconnect) was .81, sibling connectedness (SConnect) was .96 and friend connectedness (FrConnect) was .86.

Procedure

Approval from the Research Ethics Board at the University of Guelph was received prior to the start of the study’s data collection. Participants were recruited through the University of Guelph’s Psychology Participant Pool. Informed consent was received from all participants prior
to the start of the study. Administration of all questionnaires was in an online format on the University’s Sona system (https://uoguelph.sona-systems.com/Default.aspx?ReturnUrl=%2f) using Qualtrics software. Participants were able to access the questionnaires in any setting of their choosing (as long as they had internet access). The design was such that participants could complete it in one sitting (i.e. taking approximately 60 minutes), however, they had up to 24 hours submit their data once beginning the study. The order of questionnaires was counterbalanced to minimize order effects. Participants were debriefed upon completion of the study.

**Results**

**Analytic Plan**

To examine the relations between paternal validation and invalidation of emotion and connectedness in the various interpersonal relationships, bivariate correlations were run. Bivariate correlations were also used to analyze the relations amongst all the hypothesized variables within the proposed models (i.e., perceptions invalidation and validation and self-alienation and character shame, self-alienation and character shame and connectedness to mothers, fathers, parents, siblings and friends). Fisher r-to-z transformations were used to analyze the strength of the correlations between each variable in order to determine which associations of the study’s variables were the strongest. To examine the proposed models and assess whether self-alienation or character shame mediated the potential relation between perceptions of validation/invalidation and a sense of connectedness amongst the different
interpersonal relationships, multiple mediator analyses analysis were conducted\(^1\) using the Preacher and Hayes (2008) guidelines.

**Descriptive Analyses**

Missing data within the current study was dealt with using the pairwise deletion technique, such that if a case was missing a response on one or more items on a scale, the case was excluded from that particular analysis. However, that case would not have been excluded from other analyses, if the included scales on that particular analysis had no missing data. Prior to beginning the analyses, data were checked for completeness and accuracy (i.e., outlier analysis). When outliers (e.g., scores more than 3 standard deviations from the mean) were detected (a total of 4 cases for 1 variable), analyses were run with and without the outliers to determine their actual impact on the analyses. The two analyses yielded nearly identical results; the inclusion or exclusion of the observations did not alter the pattern of results or any decision regarding the statistical significance of the findings. Accordingly, the data associated with these observations were included in all analyses. Participants who indicated having a male other than a father (i.e., uncle, step father, grandfather) as a primary caregiver were included in the analysis. Those who identified not having any male primary caregiver were excluded. Descriptive statistics (frequencies, means, and standard deviations) across the sample are found in Table 1.

**SES Results.** Overall, reporting of perceived paternal validation (M = 4.38, SD = 1.51) was significantly greater than reports of perceived invalidation (M = 2.52, SD = 1.31; \( t (252) =12.08, p < .01 \)).

\(^1\) Moderator analyses were attempted for each mediator variable in addition to the multiple mediator analyses. Neither self-alienation nor character shame significantly moderated the relation between paternal validation or invalidation and any of the interpersonal connectedness variables.
**Correlations.** Bivariate correlations among all variables are reported in Table 2. The inter-correlation matrix demonstrates that most of the correlations were statistically significant using two-tailed tests. As expected, the perception of paternal validation was positively correlated with connectedness in various interpersonal relationships. Specifically, the more paternal validation participants reported retrospectively, the more they felt connected to their mother, $r(244) = .37, p < .01, 95\%$ CI [.23, .48], father $r(245) = .62, p < .01, 95\%$ CI [.53, .70], parents $r(243) = .44, p < .01, 95\%$ CI [.34, .53] friends, $r = .13, p < .05, 95\%$ CI [-.00, .26] and siblings, $r(244) = .31, 95\%, p < .01, CI [.18, .45]$. Conversely, perceived paternal invalidation was negatively correlated with connectedness in various interpersonal relationships. Specifically, the more paternal invalidation the participants reported retrospectively, the less they reported feeling connected to their mother, $r(244) = -.24, p < .01, 95\%$ CI [-.38, -.11], father, $r(254) = -.38, p < .01, 95\%$ CI [-.52, -.23], parents, $r(243) = -.34, p < .01, 95\%$ CI [-.50, -.24], friends, $r(244) = -.15, p < .05, 95\%$ CI [-.26, -.03] and siblings, $r(244) = -.20, p < .01, 95\%$ CI [-.33, -.08].

Perceived paternal validation was not significantly correlated with self-alienation, $r(248) = -.12, ns, 95\%$ CI [-.23, .01]. However, perceived paternal invalidation was positively correlated with self-alienation, $r(248) = .19, p < .01, 95\%$ CI [.07, .30]. Finally, perceived paternal validation was not significantly correlated with character shame. However, perceived paternal invalidation was positively correlated with character shame, $r(248) = .17, p < .01, 95\%$ CI [.05, .28].

Using the Fisher r-to-z transformation, the strength of correlations between both validation and invalidation with each type of connectedness was compared. The correlation between father validation and father connectedness was significantly stronger than the correlation between father invalidation and father connectedness, $Z = 3.56, p < .01$. There were no other significant differences between correlations of validation and invalidation and each type
of connectedness. There were no significant differences between correlations of validation and invalidation and self-alienation or character shame.

Overall, the correlations for paternal validation to all types of family member connectedness were significantly stronger than with friend connectedness. The correlation between validation and mother connectedness was significantly stronger than the correlation between validation and friend connectedness, $Z = 2.77, p < .01$. The correlation between validation and father connectedness was significantly stronger than the correlation between validation and friend connectedness, $Z = 6.52, p < .01$. The correlation between validation and parent connectedness was significantly stronger than the correlation between validation and friend connectedness, $Z = 3.70, p < .01$. The correlation between validation and sibling connectedness was significantly stronger than the correlation between validation and friend connectedness, $Z = 2.06, p < .05$. The results for paternal invalidation only showed significant differences in the correlations between father and friend connectedness, $Z = 2.79, p < .05$ and between parents and friend connectedness, $Z = 2.69, p < .01$. 

34
Table 1

*Frequencies, Means and Standard Deviations for all Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M (min-max)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV</td>
<td>253</td>
<td>4.38 (1-7)</td>
<td>1.51</td>
</tr>
<tr>
<td>PI</td>
<td>253</td>
<td>2.52 (1-7)</td>
<td>1.31</td>
</tr>
<tr>
<td>S-A</td>
<td>261</td>
<td>12.29 (4-28)</td>
<td>5.53</td>
</tr>
<tr>
<td>S (CH)</td>
<td>259</td>
<td>25.48 (12-48)</td>
<td>8.11</td>
</tr>
<tr>
<td>MConnect</td>
<td>254</td>
<td>20.57 (5-25)</td>
<td>3.92</td>
</tr>
<tr>
<td>FaConnect</td>
<td>255</td>
<td>18.26 (5-25)</td>
<td>4.47</td>
</tr>
<tr>
<td>SConnect</td>
<td>254</td>
<td>18.81 (5-25)</td>
<td>5.18</td>
</tr>
<tr>
<td>PConnect</td>
<td>253</td>
<td>21.04 (7-25)</td>
<td>3.08</td>
</tr>
<tr>
<td>FrConnect</td>
<td>254</td>
<td>24.50 (13-30)</td>
<td>3.87</td>
</tr>
</tbody>
</table>

Note. PV = paternal validation score, PI = paternal invalidation score, S-A = self-alienation score, S (CH) = shame (character) score, MConnect = mother connectedness score, FaConnect = father connectedness score, SConnect = sibling connectedness score, PConnect = parent connectedness score, FrConnect = friend connectedness score
Table 2

*Intercorrelation Matrix among Measures*

<table>
<thead>
<tr>
<th></th>
<th>PV</th>
<th>PI</th>
<th>S-A</th>
<th>S (CH)</th>
<th>MConnect</th>
<th>FaConnect</th>
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<td>-.12</td>
<td>.37**</td>
<td>.62**</td>
<td>.44**</td>
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<td>[.23, .48]</td>
<td>[.53, .70]</td>
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<td>.17**</td>
<td>-.24**</td>
<td>-.38**</td>
<td>-.20**</td>
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<td>[-.26, -.03]</td>
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<td>-.13*</td>
<td>-.19**</td>
<td>-.10</td>
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<tr>
<td>FrConnect</td>
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</table>

*Note* *denotes significance at the p < .05 level, **denotes significance at the p<.01 level. Values in square brackets indicate the 95% confidence interval for each correlation. PV = paternal validation score, PI = paternal invalidation score, S-A = self-alienation score, S (CH) = shame (character) score, MConnect = mother connectedness score, FaConnect = father connectedness score, SConnect = sibling connectedness score, PConnect = parent connectedness score, FrConnect = friend connectedness score.
Multiple Mediation Analyses

It was predicted that both self-alienation and character shame would mediate the relation between perceived paternal (in)validation and connectedness in interpersonal relationships. To test these hypotheses, a multiple mediation analysis was conducted in order to evaluate the indirect effects of two or more mediators simultaneously. Following the recommendations by Preacher and Hayes (2008), a bootstrapping sampling procedure was applied for assessing indirect effects. This is a nonparametric resampling procedure where a large number of samples (5000 in the current study) are drawn with replacement from the full data set. In the present study, the bootstrap procedure was conducted using the SPSS macro provided by Preacher and Hayes (2008). A point estimate for an indirect effect was considered significant if zero was not included in the 95% bias-corrected confidence interval (C.I.). As there were five dependent variables (mother, father, parent, sibling and friend connectedness) and two independent variables (perceived paternal validation and invalidation), ten separate analyses were run using all combinations of dependent and independent variables.

The relation between paternal validation and mother connectedness, with self-alienation and character shame serving as mediators. Table 3 summarizes results for the multiple mediation analysis using perceived paternal validation as the independent variable and mother connectedness as the dependent variable. For this analysis, neither self-alienation (C.I. = -0.0001 – 0.0014) nor character shame (C.I. = -0.0004 – 0.0007) functioned as a mediator between paternal validation and mother connectedness. Results indicated for this analysis where there was no mediation that perceived paternal validation was a significant predictor of mother connectedness, \( b = .01, \ SE = .00, p < .01 \).
The relation between paternal invalidation and mother connectedness, with self-alienation and character shame serving as mediators. Table 4 summarizes results for the multiple mediation analysis using perceived paternal invalidation as the independent variable and mother connectedness as the dependent variable. For this analysis, neither self-alienation (C.I. = -0.0026 – 0.0001) nor character shame (C.I. = -0.0014 – 0.0009) functioned as a mediator of the relationship between perceived paternal invalidation and mother connectedness. Results indicated that perceived paternal invalidation was a significant predictor of mother connectedness, $b = -.01$, SE = .00, $p < .01$.

The relation between paternal validation and father connectedness, with self-alienation and character shame serving as mediators. Table 5 summarizes results for the multiple mediation analysis using perceived paternal validation as the independent variable and father connectedness as the dependent variable. For this analysis, neither self-alienation (C.I. = -0.0001 – 0.0012) nor character shame (C.I. = -0.0002 – 0.0008) functioned as a mediator of the relationship between perceived paternal validation and father connectedness. Results indicated that perceived paternal validation was a significant predictor of father connectedness, $b = .02$, SE = .00, $p < .01$.

The relation between paternal invalidation and father connectedness, with self-alienation and character shame serving as mediators. Table 6 summarizes results for the multiple mediation analysis using perceived paternal invalidation as the independent variable and father connectedness as the dependent variable. Neither self-alienation (C.I. = -0.0023 – 0.0005) nor character shame (C.I. = -0.0016 – 0.0008) functioned as a mediator of the relationship between perceived paternal invalidation and father connectedness. Results indicated that
perceived paternal invalidation was a significant predictor of father connectedness, \( b = -0.02 \), \( SE = 0.00 \), \( p < .01 \).

**The relation between paternal validation and parent connectedness, with self-alienation and character shame serving as mediators.** Table 7 summarizes results for the multiple mediation analysis using perceived paternal validation as the independent variable and parent connectedness as the dependent variable. For this analysis, self-alienation functioned as a partial mediator of the relationship between perceived paternal validation and parent connectedness (C.I. = .0001 - .00015), but character shame (C.I. = -0.0001 – 0.0009) did not. Further, the effect size value for self-alienation as a mediator (\( r_r < .00 \)) was small (Kenny, 2016), suggesting low practical significance.

**The relation between paternal invalidation and parent connectedness, with self-alienation and character shame serving as mediators.** Table 8 summarizes results for the multiple mediation analysis using perceived paternal invalidation as the independent variable and parent connectedness as the dependent variable. For this analysis, results showed that self-alienation functioned as a partial mediator of the relationship between perceived paternal invalidation and parent connectedness (C.I. = -.0025 - -.0002), but character shame (C.I. = -0.0014 – 0.0004) did not. Further, the effect size value for self-alienation as a mediator (\( r_r < -.00 \)) was small (Kenny, 2016), suggesting low practical significance.

**The relation between paternal validation and sibling connectedness, with self-alienation and character shame serving as mediators.** Table 9 summarizes results for the multiple mediation analysis using perceived paternal validation as the independent variable and sibling connectedness as the dependent variable. For this analysis, neither self-alienation (C.I. = -0.0001 – 0.0020), nor character shame (C.I. = -0.0011 – 0.0003) functioned as a mediator of the
relationship between paternal invalidation and sibling connectedness. Results indicated that paternal validation was a significant predictor of sibling connectedness, $b = .01$, $SE = .00$, $p < .01$.

**The relation between paternal invalidation and sibling connectedness, with self-alienation and character shame serving as mediators.** Table 10 summarizes results for the multiple mediation analysis using paternal invalidation as the independent variable and sibling connectedness as the dependent variable. Neither self-alienation (C.I. = -0.0037 – 0.0020), nor character shame (C.I. = -0.0008 – 0.0021) functioned as a mediator of the relationship between paternal invalidation and sibling connectedness. Results indicated that paternal invalidation was a significant predictor of sibling connectedness, $b = -.01$, $SE = .00$, $p < .01$.

**The relation between paternal validation and friend connectedness, with self-alienation and character shame serving as mediators.** Table 11 summarizes results for the multiple mediation analysis using paternal validation as the independent variable and friend connectedness as the dependent variable. For this analysis, self-alienation functioned as a partial mediator of the relationship between paternal validation and friend connectedness (C.I. = .0001 – .0016), but character shame (C.I. = -0.0005 – 0.0006) did not. Further, the effect size value for self-alienation as a mediator ($rr < .00$) was small (Kenny, 2016), suggesting low practical significance.

**The relation between paternal invalidation and friend connectedness, with character shame and self-alienation serving as mediators.** Table 12 summarizes results for the multiple mediation analysis using paternal invalidation as the independent variable and friend connectedness as the dependent variable. For this analysis, self-alienation functioned as a partial mediator of the relationship between paternal invalidation and friend connectedness (C.I. = -
.0028 - -.0003), but character shame (C.I. = -0.0010 – 0.0008) did not. Further, the effect size value for self-alienation as a mediator ($rr < -.00$) was small (Kenny, 2016), suggesting low practical significance.
Table 3

*The Relation between the Paternal Validation and Mother Connectedness, with Character Shame and Self-Alienation serving as Mediators*

<table>
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<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.0103</td>
<td>0.0017</td>
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<td>Direct effect (effect of IV)</td>
<td>0.0099</td>
<td>0.0017</td>
<td>5.8093</td>
<td>0.000</td>
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</table>

<table>
<thead>
<tr>
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<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
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<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0004</td>
<td>-0.0001</td>
<td>0.0014</td>
</tr>
<tr>
<td>Character Shame</td>
<td>0.0000</td>
<td>-0.0004</td>
<td>0.0007</td>
</tr>
<tr>
<td>Self-Alienation</td>
<td>0.0004</td>
<td>-0.0001</td>
<td>0.0014</td>
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Table 4

The Relation between the Paternal Invalidation and Mother Connectedness, with Character Shame and Self-Alienation serving as Mediators

<table>
<thead>
<tr>
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<th>$p$</th>
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<tr>
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<td>0.0013</td>
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<table>
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<td>0.0009</td>
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<td>-0.0026</td>
<td>0.0001</td>
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Table 5

*The Relation between the Paternal Validation and Father Connectedness, with Character Shame and Self-Alienation serving as Mediators*

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</thead>
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<td>Total effect (effect of IV+ mediators)</td>
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<td>Indirect effect (via mediators)</td>
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<td>-0.0001</td>
<td>0.0012</td>
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<tr>
<td>Character Shame</td>
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<td>-0.0002</td>
<td>0.0008</td>
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<tr>
<td>Self-Alienation</td>
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<td>-0.0001</td>
<td>0.0012</td>
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Table 6

The Relation between the Paternal Invalidation and Father Connectedness, with Character Shame and Self-Alienation serving as Mediators

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<th>SE</th>
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<tbody>
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<td>Total effect (effect of IV+ mediators)</td>
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<td>Self-Alienation</td>
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Table 7

*The Relation between the Paternal Validation and Parent Connectedness, with Character Shame and Self-Alienation serving as Mediators*

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<td>Character Shame</td>
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Table 8

The Relation between the Paternal Invalidation and Parent Connectedness, with Character Shame and Self-Alienation serving as Mediators

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Table 9

*The Relation between the Paternal Validation and Sibling Connectedness, with Character Shame and Self-Alienation serving as Mediators*

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Table 10

*The Relation between the Paternal Invalidation and Sibling Connectedness, with Character Shame and Self-Alienation serving as Mediators*

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<td>Self-Alienation</td>
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Table 11

*The Relation between the Paternal Validation and Friend Connectedness, with Character Shame and Self-Alienation serving as Mediators*

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<tbody>
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<td>Indirect effect (via mediators)</td>
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<td>0.0015</td>
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<tr>
<td>Character Shame</td>
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<tr>
<td>Self-Alienation</td>
<td>0.0006</td>
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Table 12

The Relation between the Paternal Invalidation and Friend Connectedness, with Character Shame and Self-Alienation serving as Mediators

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<td>Character Shame</td>
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<td>Self-Alienation</td>
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<td>-0.0028</td>
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Discussion

Research has historically focused on the mother-child relationship in exploring the parental influence on psychosocial development (Becker, 1994; Bowlby, 1985; Eisenberg et al., 1998; Nielson, 2012; Parsons & Bales, 1955; Videon, 2005), often overlooking the paternal role (Becker, 1994; Bowlby, 1985; Davis, 1949, Phares & Compas, 1992; Videon, 2005), as well as the continuing influence of these early relationships into emerging adulthood (Allgood et al., 2012; Videon, 2005). There is, however, a more recent shift to the exploration specifically of the father’s role in a daughter’s development, beyond childhood and into adolescence and emerging adulthood (Amato, 1994; Cabrera et al., 2000; Flouri & Buchanan, 2003; Videon, 2005). In determining possibly important variables to explore within the context of the father-daughter relationship, longstanding theoretical models highlight certain psychosocial outcomes relevant to particular family dynamics. The primary aim of this first study was to examine the relation between perceived paternal emotional (in)validation in childhood and interpersonal connectedness in emerging adult daughters.

Interpersonal Connectedness in Relation to Paternal Invalidation

The first research question asked how levels of connectedness in emerging adulthood might be related to a daughter’s perception of her father’s response to emotions in childhood. Based on prior research and theory, it was predicted that participants who reported higher levels of invalidation would also report less connectedness within their current close relationships (Blair et al., 2014; Eisenberg et al., 1997; Eisenberg et al., 1998; Fruzzetti et al., 2005; Karcher et al., 2006; Miller-Slough et al., 2017; Saarni, 1999; Zahn-Waxler, 2010). The hypothesis was well supported. Indeed, there was a negative association between reports of paternal invalidation and
a sense of connectedness to mothers, fathers, parents (in general), siblings and friends. Conversely, there was a positive association between reports of paternal validation and a sense of connectedness to mothers, fathers, parents, siblings and friends. This is consistent with previous evidence that broadly implicates the influence that the father-daughter relationship can have on close relationships later in life (Belt & Abidin, 1996; Black & Schutte, 2006; Byrd-Craven et al., 2012; Scharf & Mayseless, 2008). It also contributes to the literature, which suggests that there are specific components of the paternal relationship or fathering practices that can influence a daughter’s development, especially within social contexts. For instance, previous studies have demonstrated that ratings of the quality of the relationship, paternal warmth, love and nurturance, care and protection, positivity, and involvement are all associated with different psychosocial outcomes (Allgood et al., 2012; Amato, 1994; Barnett et al., 1991; Belt & Abidin, 1996; Byrd-Craven et al., 2012; Nielson, 2014; Scharf & Mayseless, 2008). Retrospective accounts of paternal invalidation, and the associated outcomes for interpersonal relationships, for university-aged women can also be added to this list.

The results of this study broadly contribute to the more recent literature which suggests that fathers are likely more important than once hypothesized in the lives of their daughters (Demidenko et al., 2014; Popenoe, 1999; Videon, 2005). The notion that there are associations between these paternal parenting practices in early childhood and long-term developmental outcomes (Burns & Dunlop, 1991; Flouri & Buchanan, 2003; Franz et al., 1991; Videon, 2005) was also supported. The current study contributes to the need to understand how fathers play a role in their offspring’s continuing development (Lesch & Scheffler, 2016; Nielson, 2014; Videon, 2005). More specifically, the present findings are consistent with research, which found
retrospective accounts of fathering were related to a daughter’s well-being during emerging adulthood (Allgood et al., 2012).

Previous evidence suggests that how a father responds to his child’s emotions is associated with emotional development, such as emotional competence (Eisenberg et al., 1998), personal distress, psychopathology (Shenk & Fruzzetti, 2005 as cited by Fruzzetti et al., 2005), chronic emotional inhibition and symptoms of depression, anxiety (Krause et al., 2003) and BPD traits and tendencies (Adrian et al., 2011; Fruzzetti et al., 2005). The associations found in this study demonstrate that perceived paternal invalidation is also related to outcomes in the social realm. This was consistent with the initial hypotheses, based on evidence that broadly implicates the fathers’ role in their daughters’ social development (Belt & Abidin, 1996; Black & Schutte, 2006; Byrd-Craven et al., 2012; Scharf & Mayseless, 2008) and theoretical descriptions of potential outcomes for invalidation, such as difficulties with stable, healthy relationships (Fruzzetti et al., 2005).

Another finding of this study was that participants reported lower levels of paternal invalidation than validation. This result stands in contrast to previous research which tends to suggest that paternal socialization of emotion differs from that of mothers, in that it is potentially more invalidating. More specifically, fathers are said to speak to their children for less time about emotional experiences (Fivush, Brotman, Buckner & Goodman, 2000), are less active as emotion coaches, are more likely to respond to negative emotions by overlooking, punishing, minimizing (Cassano, Perry-Parrish & Zeman, 2007) or dismissing them (Klimes-Dougan & Zeman, 2007) and they are less supportive in response to displays of overall emotion, but especially to negative displays of emotion (Garside & Klimes-Dougan, 2002). However, the finding of less invalidation in this study is in line with evidence which suggests that females tend
to rate parents as more validating and less invalidating, than do males (Sauer & Baer, 2010). Given that the current study sample was all young women, this result was expected. Moreover, a majority of participants in this study reported having married parents. Perhaps this is a protective factor that might temper some of the associations between the hypothesized variables. How this might apply to the mediator models will be discussed below.

The results also demonstrated that at least for perceived paternal validation, the associations with connectedness were stronger with the family relationships (i.e., mothers, fathers, parents and siblings) than with friends. The stronger connection between paternal validation and connectedness to family in comparison to friends may suggest that the perception of positive experiences with one member of the family (i.e., with a father’s response to emotions in early childhood) extend to all familial relationships. Although not significant in all family relationships in terms of perceived invalidation, it was still the case that it was more strongly associated with connectedness to fathers and parents, in comparison with friends. Overall, the current results may suggest that what one experiences within the family (i.e., with the father in particular) is more relevant for feelings of connectedness towards the family, than with respect to friends. This was especially true when the experience was perceived as positive and validating. Perhaps experiences with a parent are more closely associated with relationships that are considered more intimate. In line with this notion is the fact that fathers influence their daughters’ romantic relationships (Nielson, 2014). For instance, previous research has shown that more loving and positive father-daughter relationships are associated with more comfort seeking from partners (Black & Schutte, 2006). Moreover, it has also been demonstrated that paternal care and protection is predictive of daughters’ perceptions of marital depth (considered to represent life-long satisfaction in marriage; Belt & Abidin, 1996). Finally, positive indicators
of a father-daughter relationship (i.e., relatedness) are associated with the quality, duration and attachment security of the daughters’ romantic relationships (Scharf & Mayseless, 2008). The results of the current study contribute to evidence suggesting that the father-daughter relationship is associated with important relationship outcomes, especially in relationships typically considered close or intimate.

Further to the differential effects of validation and invalidation was the finding that the correlation between perceived validation and father connectedness was stronger than the correlation between invalidation and father connectedness. What this might suggest is that having a positive relationship with one’s father in early childhood is more salient for how one regards the level of connectedness within this relationship later on. Less invalidation, while still associated with more connectedness, might matter less than feeling validated in terms of connectedness with that parent. These results suggest that greater feelings of connectedness to one’s father stem from positive feelings about the relationship in childhood and adolescence, rather than from a lack of negative feelings. This fits with the way in which the concept of connectedness is delineated. It is a caregiver’s responsiveness, when given in a clear consistent manner, that leads to the proximity seeking and positive affect within that relationship (Karcher et al., 2006). These early experiences with paternal validation, rather than just a father being less invalidating, serve as a guide for whom we will feel close to later in life (Karcher et al., 2006).

Of note also is the fact that only perceived paternal invalidation was associated with the mediators while validation was not. One might hypothesize that invalidating feedback of a critical or challenging nature is much more salient than the experience of not receiving a validating response. For instance, in a situation where a child expresses a particular emotion and is met with validating feedback from her father, it is received neutrally. However, if that same
expression is met with criticism or question, it is perceived negatively and as such is recalled as having a significant carry over to self-alienation and shame. This is consistent with the current study’s hypothesis that invalidating responses, through their questioning, denying, or criticizing of a child’s inner experience, lead to difficulties identifying, understanding and being aware of one’s inner experience (Fruzzetti et al., 2005; Shenk & Fruzzetti et al., 2005, as cited by Fruzzetti et al., 2005; Tantillo & Sanftner, 2010; Trepal et al., 2012; Wood et al., 2008) and the development of a sense of shame about that experience (Fruzzetti et al., 2005; Greenberg & Safran, 1989; Lewis, 2008; Teyber et al., 2011). It is also consistent with evidence that highlights other problematic outcomes such distress, psychopathology, BPD symptoms, non-suicidal self-injury and emotion dysregulation that are related to invalidation in childhood (Adrian et al., 2011; Fruzzetti et al., 2005; Krause et al., 2003).

Another finding of the current study was that perceived validation was more strongly associated with father connectedness than invalidation. These results suggest that validation and invalidation are not two sides of the same coin, that is, less validation does not necessarily equal more invalidation. In this study, the two were moderately negatively correlated ($r = -.50$), and more strongly related to different outcomes. Invalidation was significantly related to character shame and self-alienation whereas validation was not, and the correlation between validation and father connectedness was significantly stronger than that between invalidation and father connectedness). This suggests that they are two distinct experiences that are related to different outcomes. Research on the Socialization of Emotion Scale does support that validation and invalidation are in fact two separate factors, which are only modestly correlated, and that are ultimately not always associated with the same outcome in an inverse manner (Sauer & Baer, 2010). For instance, Sauer and Baer (2010) noted that invalidation was positively correlated with
BPD symptoms, thought suppression and fear emotions, while validation was negatively correlated with BPD symptoms and fear of emotions but not thought suppression in a group of undergraduate student participants. The current study results contribute to evidence, which suggests that validation and invalidation are two distinct factors rather than opposing experiences.

**The Relation between Paternal Invalidation and Interpersonal Connectedness**

**Authenticity as a mediator.** Once it was established that a sense of connectedness in interpersonal relationships was lower among those who reported higher levels of paternal invalidation, the next step of this research was to uncover a potential mediator linking invalidation to a lack of connectedness. Specifically, it was hypothesized that this ability to identify or be consciously aware of one’s own inner experience (or lack thereof) would mediate the relation between paternal response to emotion and a sense of connectedness. Previous theoretical discussions of the concepts as well as associated evidence led to the hypothesis that self-alienation would be positively related outcome of paternal invalidation (Fruzzetti et al., 2005; Trepal et al 2002; Wood et al., 2008), contributing to, or accounting for the associated lack of connectedness (Frey, 2013; Jordan, 1997; Maine, 2001; Mauss et al., 2011; Lopez & Rice, 2006). The experience of having a parent invalidate the ‘self’, would ultimately lead to difficulties of knowing this ‘self’ later in life, and that there would be a consequential disconnect from interpersonal relationships as well because an inability to know, and as a consequence demonstrate one’s internal experience appropriately, could cause a disconnect within important relationships (Butler et al., 2003; Mauss et al., 2011). There was partial support for this hypothesis. The results indicated that self-alienation mediated the relation between paternal invalidation and connectedness only in parent and friend relationships. Though the effect sizes
were small, this provides some preliminary evidence that, at least in some relationships, the father-daughter dynamic in early childhood is associated with interpersonal connectedness, through self-alienation. These results are consistent with previous theoretical accounts which suggest that the relation between early childhood experiences and connectedness in relationships (Frey, 2013; Lopez & Rice, 2006; Mauss et al., 2011) is mediated by one’s ability to know the self (Fruzzetti et al., 2005; Wood et al., 2008) or more generally, a sense of being authenticity.

One reason for why authenticity acted as a significant mediator between invalidation and connectedness only to parents and friends, and not in the other relationships is that relationships with parents and friends are likely the most important ones during emerging adulthood (Arnett, 2000). Though one of the developmental task of emerging adults is to find increased intimacy, closeness and stability outside of the family (Arnett, 2000; Reis, Lin, Bennett & Nezlek, 1993), fluctuations in autonomy from parents and the family of origin still occur at this time (Cohen, Kasen, Chen, Hartmark & Gordon, 2003; Videon, 2005). Though parents may not be physically present, they may still be providing extended support for such things as financial assistance, and help with decision making (Arnett, 2000). Even without this, they continue to be in a relationship of importance as emerging adults move towards decision-making and identity independence in adulthood (Arnett, 2000). One might ask then, why would these variables be relevant within the ‘parent’ relationship, but not each parent separately (i.e., mother or father). Since emerging adulthood is also thought of a time of reflecting on early influential relationships (Arnett, 2000), and the majority of this sample reported having married parents, it could be that the parents were viewed as a unit by this sample. This is an account of a relationship that, though of continued importance, may be diminishing in physical presence and support (Arnett, 2000). As such, it may also be that these participants were more likely to see their parents overall as important, rather
than each parent individually. With regard to friendships specifically, it is likely that there is a prioritizing of this relationship across the university years. Friends may be more likely to be physically present since this is the age when most emerging adults will move out of their parents’ home (Arnett, 2000).

**The Relation between Paternal Invalidation and Interpersonal Connectedness**

**Shame as a mediator.** Though many earlier theoretical models point to shame as stemming from invalidation (Fruzzetti et al., 2005), and as being a predictor of a lack of connectedness in important relationships (Brown, 2006), the hypothesis that it would mediate the relation between paternal invalidation and connectedness was not supported in this study. One potential explanation for why this hypothesis was not supported might be related to the fact that within this sample, reports of invalidation were lower than validation, overall. The aforementioned theories often refer to clinical contexts, such as the development of Borderline Personality Disorder (BPD), or non-suicidal self-injury and/or severe emotion dysregulation (Adrian et al., 2011; Fruzzetti et al., 2005). Fruzzetti et al. (2005) argue that in chronic, pervasively invalidating environments, a child might develop secondary emotions such as shame when a primary emotion or experience is invalidated. The theory posits that this, in part, contributes to higher rates of emotion dysregulation, which may interfere with creating future healthy relationships. However, if this is only in response to significantly chaotic, highly negative, pervasively invalidating environments, it may be unlikely to be reported within this sample, given the low reports of perceived invalidation overall. This sample of university-aged women, of which the majority had married parents, who perceived significantly less paternal invalidation than validation, might not be representative of the extreme invalidation that these earlier theories are referencing. For instance, for the development of BPD or BPD like traits,
Fruzzetti et al. (2005) point to very extreme invalidating responses, such as neglect and emotional denial (Zanarini et al., 1997). Hence, it is possible the low reported level of perceived invalidation in the current study may have influenced the probability of shame as a mediator.

Looking at the overall correlations, the results indicated that shame was not significantly correlated with connectedness across several types of relationships. The correlation between shame and parent/father connectedness was weak. This was not consistent with previous research, which suggests that shame likely results in disconnectedness in relationships (Brown, 2006; Dorahy, 2010). However, it might be consistent with a more recent view of shame that suggests that despite the prominent shame theories, it may not be the “inherently maladaptive” (Sznycer, et al., p. 2625, 2016) emotion it was once considered. Sznycer et al. (2016) suggest that the purpose of shame may actually be adaptive to counter the threat of devaluation in social relationships. In line with this, shame is thought to protect individuals from negative evaluation in relationships by leading to adaptive choices that will avoid devaluing (i.e., avoiding actions which will cause more social devaluation than payoff). Their research speaks to this point. Emerging adult participants from the United States, Israel, and India rated an individual’s behaviour in a series of negative scenarios. These ratings predicted how shameful they would feel if they were the person in that same scenario (Sznycer et al., 2016). According to the authors, shame is actually adaptive to counter the threat of being socially devalued. With regards to the current results, this is one possibility for understanding why the initial hypotheses were not supported. Shame may serve to act in ways in which one is able to maintain connectedness by allowing a person to be cautiously aware of what is considered inappropriate within their important relationships, helping to maintain what they perceive as healthy connections. Therefore, shame would not interfere with connectedness as per the current study’s hypothesis.
It could also be argued that there were certain protective factors that could have interfered with shame as the proposed mediator. Perhaps these protective factors meant that even in the presence of shame, connectedness was not affected. For instance, when only looking at the father in the development of overall shame of a person and the influence that this has on connectedness, it may be that the type of response offered by the mother to their daughter’s emotions might serve as a protective factor against shame as a mediator. This is consistent with the notion that having a “stable positive emotional relationship with at least one person” (Garbarino, p. 163, 1999) can be considered a resilience factor. Though Garbarino’s work is directed at males becoming violent, it may extend to other situations as well. Garbarino (1999) notes that female responses to risk factors tend to be internalized, a response that is similar to the experience of shame. Similarly, there is evidence that suggests that even when the most severe parenting practices (i.e., child maltreatment) are experienced, having a positive relationship with an alternate caregiver can be a protective factor (Bolger & Patterson, 2003). Much of the current sample reported having married parents. Within these two-parent households, any experienced shame because of father invalidation might have been mitigated by a positive relationship with the mother.

Lastly, it should be noted that shame and self-alienation are moderately correlated ($r = .42$), and hence share common variance. Thus, self-alienation accounts for much of the variance in the multiple mediator analyses between invalidation and connectedness. Shame therefore, accounts for little new variance in the relationship and as such, was not a significant mediator.

**Limitations and Future Directions**

The study sample was relatively homogenous. The majority of the sample reported that they were Caucasian. Culture is known to play a significant role in the father-child relationship.
For instance, the father role is more culturally variable than mothers (Paquette, 2004) and in many cultures, they may give little or no direct care (Hewlett, 2000). In Western societies, however, the father-child relationship has shifted in recent years as women enter the workforce, and fathers increase their share of emotional care giving (Hofferth, Stueve, Pleck, Bianchi, & Sayer, 2002). Given that the majority of the participants in the current study were Caucasian, it may not be possible to generalize these findings beyond this group or to assume that other groups have made a similar change with regard to a father’s emotional involvement with their children. It will be important for future research to remedy this limitation by assessing this relationship within different cultures. Moreover, as mentioned, the majority of the sample reported having parents who were married. Future research might focus on a more varied sample in terms of family constellation, potentially from outside a university setting. Emerging adult women outside of post-secondary education may vary from those within the university setting, as they move more quickly into what is considered adulthood (Arnett, 2000; Schwartz et al., 2005).

A second limitation in the study pertained to the source of the data. Reports of paternal invalidation were retrospective and only obtained from the daughters’ perspective. There are obvious drawbacks to this type of methodology. For instance, the current design of the study does not allow one to conclude that fathers affect later behaviour of their daughters, only that there is a relation between retrospective accounts and current sense of connectedness in certain interpersonal relationships. It is possible that to the extent that one has successful positive social relationships in emerging adulthood, one will either recall or realign memories from early paternal relationships as positive as well. That is, one tells a narrative that is consistent with one’s current social standing with parents, siblings and friends. This is especially true when it is considered that emotions shape our memories (Nielson, 2012) and tend to create a personal
narrative that is consistent with seeing those we like best most positively and those we like least in a negative light (Nielson, 2012). Memories we recall will likely fit this narrative, suggesting that if participants felt positive (connected) about their father currently, they would likely recall childhood memories in line with such feelings. Future studies should focus on longitudinal designs to determine the full nature and directionality of the relation. Moreover, as the narrative comes only from the daughter’s perspective, it is not possible to determine if there is concordance with others’ family narratives. Furthermore, even if there is high agreement between family narratives, this does not speak to the validity of the narrative as each narrative reflects a participant’s current rendition or perspective of past events. It is not so much a question of a right or wrong narrative, only a question of how different are the narratives and what themes exemplify the difference.

Future research also might consider prospectively studying the influence of invalidation, using observational reports and exploring the fathers’ perspective on their own parenting to compare parent-child reports. The role of father-son relations should also be explored using the current study’s model to compare and contrast outcomes. Potential models might be explored using different emotional, personality or characteristic outcomes, as the current study’s hypotheses regarding shame and authenticity as mediators were only partially supported. Finally, only small effect sizes were observed and results, therefore, should be interpreted with caution.

**Clinical Implications**

These findings potentially shed light on how certain paternal practices in early childhood might influence later social outcomes for daughters. Thus, clinicians should consider how fathers might influence the continuing development of their daughters. Invalidation can be a subtle process (Mounford et al., 2007). If a client is unaware of its impact and a clinician does not
explore perceived (in)validation, it may go unidentified (Mountford et al., 2007). The results of the study may suggest that it would be helpful to inquire about a young woman’s perception of her father’s response to emotions in childhood, and its potential relation to her perception of her current relationships. Even though the results reflect the perceptions of, rather than the actual behaviours of the parent, it is important to understand what a child makes of her situation (Mountford et al., 2007). Furthermore, it may also be important that (in)validation be thought of as both the perception of the child, and the actual behavior of the parent in order to inform intervention. Specifically, if it is only viewed as the perception of the parent’s behaviour, then intervention would be directed toward the perceptions of the child as the focus of change. However, if (in)validation is seen as influenced by both the behaviour of the father, as well as the perception of the daughter (which is likely also influenced by other personality variables and experiences), then the results suggest that clinicians intervene in the dyadic interactions between parent and child. For instance, feedback might be provided to the fathers to modify their behaviour, while also working to modify the perceptions of the child as the father changes his behaviour. This would be important as the perception may be slow to match a change in parental responsiveness to the child.

Moreover, it may also direct clinicians to look at shame and authenticity for female clients who present in therapy with more problematic perceptions of their paternal relationship. The results of the current study suggest that those with the perception of more invalidating environments in childhood may also feel more shame and less authenticity. The presentation of a young woman who lacks a sense of self or is shameful around her experiences may indicate the presence of invalidating childhood environment. Therefore, it may be important to identify how invalidating experiences with their father have influenced their own inner experiences of
thoughts, emotions, states and their overall self. The implications being that if invalidation is in part contributing to any difficulties in relationships, with shame, or self-alienation, it may be beneficial to begin with extensive validation of the client and their inner experiences at the outset of therapy. The identification of how these childhood experiences influence the studied outcomes may guide clinicians to aid client’s coping with such experiences. These implications, as mentioned previously, should be interpreted with caution given the low effect sizes found in the current study and need be explored in a higher-risk or clinical sample for maximum clinical application.

Conclusion

The present study makes a contribution to knowledge of how perceptions of a fathers’ response to their daughters’ emotions in childhood relates to their self-reported psychosocial development in emerging adulthood. Perceived paternal invalidation was directly associated to less connectedness in social relationships. Further analyses found that self-alienation (a lack of authenticity) mediated the relation between perceived paternal invalidation and connectedness to parents and friends (though effect sizes were small), but shame did not. This research does contribute to understanding the father-daughter relationship, previously referred to as the least well understood and studies of the family relationships (Secunda, 2002).

Study Two

Paternal Influence on Daughters’ Disordered Eating Habits

As mentioned earlier, there is indication within the literature that how a parent responds to a child’s emotions in childhood plays a role in adjustment, both by influencing the development of social competence and psychopathology (Eisenberg et al., 1998; Hoerger et al., 2011). Study 1 assessed some potential social outcomes of such parenting practices. Study 2
assessed paternal validation/invalidation of emotion and the potential relations to eating pathology. Disordered Eating (DE), or subclinical eating concerns (engaging in disordered eating thoughts and behaviours but failing to meet full-syndrome criteria) appear to be much more prevalent than clinical levels of Eating Disorders (APA, 2006). It is estimated that between 20% and 60% of university-aged women, and 10% of females in the general population, report such eating disturbances (Hesse-Biber, Marino & Watts-Roy, 1999; Lewinsohn, Striegel-Moore, & Seeley, 2000). Negative body image amongst young women is sometimes considered so common (estimated at 56% by Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999) that it has been referred to as “normative discontent” (Rodin, Silberstein and Striegel-Moore, 1984.) They might also experience comorbid anxiety, depression, substance use or abuse, increased suicide rate and the eventual development of clinical Eating Disorder (Stice, Shaw, Black Becker & Rhode, 2008; Wilson, Becker & Heffernan, 2003). Since disordered eating habits, such as binge-eating and restrictive dieting are so common among young women in university, it is important to explore the precipitating factors associated with the types and levels of these behaviours (Hesse-Biber et al., 1999; Pace, Cacioppo & Schimmenti, 2011; Tylka, 2004) towards informing prevention efforts.

Although there are a number of potential vulnerability factors that have been implicated in the development of eating disorders (i.e. genetics; Berrettini, 2004), the role of family dynamics was the focus of the current study. Early theories concerning the development of eating disorder symptoms posited that the family was at the core of such disorders. They focused on how the family system could impair the development of autonomy and identity for ED adolescents (Bruch, 1973; Minuchin, Rosman, & Baker, 1978.) For much of the history of the role of the family in eating problems (Dominy, Johnson & Koch, 2000; Wheeler, Wintre, &
Polivy, 2003), there has been a focus on mother-daughter interactions (Ward, Ramsay, Turnbull, Benedettini, & Treasure, 2000). This is consistent with mothers being seen as the primary caregivers in traditional households (Pace et al., 2011). Adolescents with eating issues, however, often described their fathers as cold and distant (Minuchin et al., 1978). More recently, there is direct evidence suggesting that the father-daughter relationship is related to problematic eating outcomes. For instance, women with diagnosable ED perceive having poor father-daughter relationships (Botta & Dumlao, 2002), a lack of paternal empathy (Steiger, Fraenkel & Leichner, 1989) and paternal overprotection (Berger et al., 1995). Evidence also exists within non-eating disorder populations. For instance, one study has shown that binge-eating symptoms in university-aged women are negatively associated with levels of secure attachment and father’s care during childhood (Pace et al., 2011). Binge eating symptoms were highest in those with insecure attachment styles. However, a father’s care, defined as perceived involvement and concern, mediated this relation, demonstrating that at both high and low levels of preoccupied attachment, high levels of a father’s care tended to be associated with lower levels of binge eating symptoms (Pace et al., 2011). In another study, paternal overprotection was related to bulimic behaviours in a nonclinical sample of young females (mean age 19.4; Meyer & Gillings, 2004). The implication from this evidence is that the father-daughter relationship is likely more important than once thought when considering the developmental context of eating pathology.

In determining which aspects of parenting and the type of environment that may contribute to the development of eating issues, recent research has begun to use Linehan’s (1993) biosocial model as a guide. The model suggests that an invalidating environment is one in which the communication of emotions is ignored or responded to negatively (Mountford et al., 2007). According to Linehan (1993), children who grow up with invalidation may learn that their
emotions are incorrect and may not learn how to label their emotions appropriately or how to tolerate distress. When they realize that their emotions and/or private experiences are met with rejection or punishment, to cope with this external experience, they may teach themselves to ignore, discount or not communicate their internal states (Ford, Waller & Mountford, 2011; Linehan, 1993). As a result, adolescents may have difficulty tolerating negative affect (Linehen, 1993; Mountford et al., 2007). If the caregiver did not validate negative emotions, the adolescent may learn that negative states should be avoided. Subsequently, the adolescent does not tolerate these states. Thus, appropriate distress tolerance may not be acquired and there may be no opportunity for effective coping strategies to be learned.

Evidence suggests that patients with eating disorders report significant difficulties tolerating emotional distress (Corstorphine, Mountford, Tomlinson, Waller & Meyer, 2007; Wiser & Telch, 1999; Waller, Corstorphine & Mountford, 2007) and that eating disordered behaviours can be used to manage strong emotions (Root & Fallon, 1988). As such, the aforementioned model has recently been extended to focus on eating disorder behaviours. Within this model, Haynos and Fruzzetti (2011) suggest that invalidating responses contribute to distress tolerance or emotion regulation issues (Fruzzetti et al., 2005). It is thought that eating disorder behaviours are then used to escape intense negative arousal (Haynos & Fruzzetti, 2011) in the absence of proper problem solving and coping skills (Fruzzetti et al., 2005). Recent evidence does, in fact, show support for this model. For instance, invalidating environments in childhood are associated with the presence of an eating disorder; more paternal invalidation is associated with higher levels of eating pathology; and avoidance of distress mediated the relation between paternal invalidation and eating pathology (Mountford et al., 2007). Conversely, those who reported more validating childhoods are less likely to have an eating disorder (Mountford et al.,...
Patients with bulimia nervosa reported higher levels of invalidation than did those with anorexia, particularly from their fathers (Haslam, Mountford, Meyer & Waller, 2008). Lastly, invalidating childhood environments were associated with more negative core beliefs concerning eating in a group of eating disordered females (Ford et al., 2011).

Difficulties with regulating emotions may also be key to the development and maintenance of disordered eating (Agras & Telch, 1998; Markey & Vander Wal, 2007; Sim & Zeman, 2005), with disordered eating serving as a coping mechanism to relieve negative emotional states (McCarthy, 1990). As such, similar to the model described above, invalidation of emotion could be one precursor to the development of these difficulties. There are studies that demonstrate a link between invalidation (though not necessarily specific to the paternal relationship) and disordered eating. For instance, parents’ socialization of emotion through their magnification of their child’s sadness is related to symptoms of binge eating, compensatory behaviours, and lack of control over eating behaviours (Buckholdt, Parra & Jobe-Sheilds, 2014). As the authors considered emotion magnification to be a form of invalidation, according to Buckholdt et al. (2014), their results might suggest that invalidation is associated with disordered eating. In another study, eating and weight concern were both positively associated with paternal invalidation in a non-clinical sample of female university students (Haslam, Arcelus, Farrow & Meyer, 2012). And along similar lines, in comparison to physical and sexual abuse, emotional abuse (i.e., ridiculing, insulting, threatening, blaming or being unpredictable) was a better predictor of eating disordered behaviours and attitudes in a sample of undergraduate females (Kent, Waller & Dagnan, 1999).

To summarize, the studies presented above suggest that experiences of invalidation are one potential factor related to the development and maintenance of eating problems (Buckholdt
et al., 2014; Mountford et al., 2007; Haslam et al., 2012). And conversely, that those with the perception of validation in childhood are less likely to have an eating disorder (Mountford et al., 2007). The use of this framework may be especially useful as it ties together distress tolerance often seen with eating issues (Agras & Telch, 1998; Corstorphine et al., 2007; Markey & Vander Wal, 2007; Sim & Zeman, 2005; Wiser & Telch, 1999) that may stem from problematic caregiver experiences (Haynos & Fruzzetti, 2011). From the eating disorder literature, there is some suggestion that paternal invalidation may be particularly important (Halsam et al., 2012; Mountford et al., 2007). Thus, invalidation and disordered eating outcomes were explored within the father-daughter relationship.

**Authenticity and Shame as Mediators of the Relation Between Invalidation and Disordered Eating**

In identifying mechanisms that could play a role in the relation between family dysfunction and eating issues (Jones, Leung & Harris, 2006; Murray, Waller & Legg, 2000; Waller & Calam, 1994), several variables used in Study 1 also appear in the disturbed eating literature. For instance, Waller et al. (2007) suggest that the inability to identify emotions and an avoidance of shame may potentially, in part, underlie the invalidation-eating disturbance relation. This is consistent with the model proposed in Study 1, which suggests that two potential negative outcomes of invalidating environments are self-alienation (Fruzzetti et al., 2005; wood et al., 2008; Trepal et al 2002) and shame (Fruzzetti et al., 2005; Lewis, 2003; Teyber et al., 2011; Trepal et al., 2012). Since disordered eating is often argued to be one potential means of coping with the negative internal experiences that may result from invalidating childhood experiences (Fruzzetti et al., 2005; Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014), the present
study will explore the possible mediating roles of self-alienation and shame in the invalidation-disordered eating relationship.

**Authenticity as a mediator between Emotional Invalidation and DE.** For a full definition of authenticity, please see the review in Study 1. As reviewed in Study 1, the link between invalidation and self-alienation comes from the suggestion that a child whose presentation of her thoughts, feelings and emotions is met with a response that confuses her about her internal experience, may not trust her own internal state (Fruzzetti et al., 2005; Wood et al., 2008). She may be discouraged from communicating her feelings. In the future, she may have difficulty identifying or even knowing what her emotions are (Fruzzetti et al., 2005).

How does self-alienation lead to disordered eating? From a psychodynamic perspective (Horney 1951; Winnicott, 1965), “…internalizing external influence, particularly during childhood, leads to self-alienation. Self-alienation was in turn seen to be the cause of psychopathology” (Wood et al., 2008, p. 386). This suggests a mediating role of self-alienation, one component of authenticity, in the invalidation - disordered eating (psychopathology) relation. Indeed, psychological suffering is thought to result from being inauthentic, or aliened from the self (Schmidt, 2005). A symptom is a signal that there is a need for help in the processes of self-development, or being alienated from the self (Schmidt, 2005). The suggestion in the current study is that, in the context of invalidation, an individual may come to not know her own internal experience. If, as a result of invalidation, one cannot identify or understand one’s internal experiences, one will not have the necessary tools for coping. Thus, disordered eating may be one possible response (i.e. amongst other potential escape responses such as substance use, self-injury, sensation seeking, etc.; Fruzzetti et al., 2005) that is used to reduce, regulate or escape a sense of generalized distress when an individual is not able to label the
emotion or being able to use emotion-focused problem solving (Haynos & Fruzzetti, 2011; McCarthy, 1990). This is based on the aforementioned notion that eating issues are thought to regulate emotions as one potential escape behaviour (Haynos & Fruzzetti, 2011) and the supporting literature that suggests that disordered eating is likely a result of avoiding negative emotion or is used in an effort to regulate emotions (McCarthy, 1990; Mountford et al., 2007).

Support related to the above hypothesis comes from a discussion of eating disorders by Waller et al. (2007). They hypothesized that one potential outcome of emotional invalidation in childhood is alexithymia. Specifically, they propose that these individuals have difficulty identifying and labeling emotional states on the basis of internal experiences as a means of dissociating or avoiding the negative emotions which were seen as inappropriate by the caregiver (Hund & Espelage, 2006; Waller et al., 2007). Thus, the individual no longer trusts her internal states and experiences because of the invalidating responses received from the caregiver. According to Waller et al., (2007), eating behaviours then function as emotion blocks (Meyer, Wallace & Waters, 1998), used to manage the difficult emotions which cannot be dealt with properly because of the alexithymia. DE is proposed as an adaptive means of coping with poor distress tolerance associated with not being able to identify one’s emotions, since eating behaviours reduce negative emotional arousal (Meyer et al., 1998; Waller et al., 2007).

Similarly, Fruzzetti et al. (2005) have described how invalidating environments do not appropriately socialize emotions or other internal experiences, leaving the individual with the feeling of not knowing one’s private experiences. Furthermore, such environments not only fail to teach appropriate discrimination or awareness of internal states, but they likely punish attempts to display self-initiated behaviours that are reflective of knowing one’s own thoughts, feelings, and desires in the moment. Invalidation might then result in a lack of awareness of the
‘self,’ since the individual is not taught to discriminate her feelings by her caregivers. As a result, invalidating environments are thought to contribute to heightened emotional arousal, emotional skills deficits and emotion dysregulation (Fruzzetti et al., 2005; Linehan 1993). Thus, if one does not know one’s internal experience as a result of invalidation, the person is unlikely to be able to learn the appropriate and adaptive strategies to contend with negative emotional arousal. Moreover, if one is unable to learn adaptive strategies to contend with negative emotional arousal, one may be more likely to use escape or withdrawal behaviours, such as disordered eating in the service of escaping from high levels of arousal, by blunting or avoiding unpleasant private experiences (Fruzzetti et al., 2005).

**Shame as a mediator between Emotional Invalidation and DE.** The connection between invalidation and shame has been well documented (Fruzzetti et al., 2005; Gottman et al., 1996, 1997; Lewis, 2003; Mills, 2005; Teyber et al., 2011; Trepal et al., 2012). For a full review of the relation between invalidation and shame, please see the review in Study 1. As discussed in Study 1, the link between invalidation and shame comes from the notion that a person who experiences caregivers who are invalidating may develop a more shame prone sense of self. This may be the result of the fact that her experience is communicated as inappropriate (Teyber et al., 2011), she lacks skills that prevent shame later in life (Gottman et al., 1996, 1997; Mills, 2005) or because her inner experience is not seen as valued (Trepal et al., 2012) thus, leading to a sense of unworthiness (Lewis, 2003).

According to Fruzzetti et al., (2005), when a child is invalidated for a normative, primary emotion (Greenberg & Safran, 1989), this may result in secondary emotions, such as shame. For instance, the child may feel shame instead of sadness in situations in which sadness is appropriate. This response is thought to contribute to emotional skills deficits and may lead to
the improper labeling of private experiences (i.e., the daughter now labels her experience as shameful, instead of sad). This secondary response and possible inaccurate labeling automatically reduces the chance of managing the internal experience, given that proper discrimination and labeling of the emotions are required to learn nonavoidant coping (Fruzzetti et al., 2005). The child may never learn to manage or regulate strong emotions such as shame because of a lack of socialization of emotion.

Evidence exists which supports a connection between shame and disordered eating. Body shame, when considered in combination with body dissatisfaction, self-objectification and the drive for thinness, is considered one of the best predictors of eating disorders (Burney & Irwin, 2000; Mussell, Binford & Fulkerson, 2000). Body shame has been shown to mediate the childhood abuse-bulimia relation (Andrews, 1997). The more one feels body shame, the greater the restraint and concern over eating, shape and weight (Gee & Troop, 2003), drive for thinness, bulimia, body dissatisfaction, ineffectiveness (assesses feelings of inadequacy, insecurity, worthlessness and lack of control of one’s life), interpersonal distrust, interoceptive awareness, asceticism, difficulties with impulse regulation and social insecurities (Sanftner, Barlow, Marschall & Tagney, 1995). Longstanding body shame has been found in combination with subclinical eating disorders (Kirsten & du Plessis, 2008). As a possible mechanism to explain the link between family dysfunction and eating pathology, internal shame-based attributions about the self mediated the relation between paternal overprotection and bulimic attitudes in a nonclinical sample (Murray, et al., 2000). Finally, a core belief of shame mediated the relation between paternal rejection and a drive for thinness and body dissatisfaction (Jones et al., 2006).

Invalidating responses do not encourage socialization of emotion and, thus, the regulation of intense negative emotions such as shame (Fruzzetti et al., 2005). Eating behaviours may be
one potential way of coping with such experiences, as they provide an escape mechanism to
distress (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014). Therefore, the current
study explored the hypothesis that shame mediates the potential relation between paternal
invalidation and disordered eating, looking at both restrained and emotional eating (see below for
discussion of reasoning exploring both outcomes.

**Summary and Hypotheses**

Evidence suggests that invalidation is related to eating problems (Buckholdt et al., 2014;
Kent et al., 2007), and that paternal invalidation might be of particular relevance in subclinical
samples (Halsam et al., 2007; Halsam et al., 2012; Mountford et al., 2007). Many models point
to difficulties with distress tolerance as being important in the maintenance of such
symptomatology, and as such, mediating the invalidation-eating relation (Linehan, 1993; Haynos
& Fruzzetti, 2011; Mountford et al., 2007). The current study explored how two other potential
mediators, authenticity and shame, affect the relation between paternal invalidation and forms of
DE.

If, as a result of invalidation, one cannot identify or understanding one’s internal
experiences, one may not have the necessary tools for coping. Similarly, invalidating responses
may not encourage socialization of emotion and the regulation of intense negative emotions such
as shame (Fruzzetti et al., 2005). Thus, one potential pathway leading to disordered eating, could
be that it is used to deal with these experiences instead of using emotion-focused problem
solving or coping (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014; McCarthy,
1990). Conversely, validation, thought to encourage support emotional competence (Eisenberg et
al., 1998), may protect against self-alienation and shame, and thus be less likely to result in
disordered eating outcomes (Mountford et al., 2007).
For the purpose of the current study, two types of disordered eating, restrained and emotional eating, were considered as outcomes. Given the evidence mentioned above which suggests that many types of eating pathology (i.e., restricting, exercising, binge eating and purging) are thought to reduce negative arousal by providing a brief escape from aversive emotional arousal (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014; Meyer et al., 1998; Waller et al., 2007), both restrained and emotional eating were assessed as outcomes for all hypotheses. From the anorexia literature, restrained eating is thought to lead to a reduction in arousal (stemming from shame or self-alienation) by way of providing a distraction through the control of one’s eating (Dignon, Beardsmore, Spain & Kuan, 2006). This control (and restraint) is thought to provide an immediate emotional numbing or reduction to any negative arousal (Federici & Kaplan, 2008; Haynos & Fruzzetti, 2011). It may give a sense of control when there is a lack of control felt otherwise to contend with distress. Similarly, emotional eating may reduce arousal as eating can shift attention away from the negative self-appraisal towards an immediate stimulus in the environment (i.e., provides an escape from aversive negative affect or self-awareness; Heatherton & Baumeister, 1991) or because the individual has learned that eating relieves or provides comfort from negative mood states (Hawkins & Clement, 1984; McCarthy, 1990; Spoor, Bekker, Van Strien, & van Heck, 2006; Telch, 1997). Evidence that supports this notion comes from the suggestion that restricted eating can be used to reduce the negative experiences that might result from invalidation (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014), as well as the fact that eating in response to emotion can also be used to avoid internal arousal (Hawkins & Clement, 1984; Heatherton & Baumeister, 1991; McCarthy, 1990; Spoor et al., 2006; Telch, 1997; van Strien, Frijters, Bergers & Defares, 1986). Thus, in a nonclinical population, though the mechanisms associated with each type of behaviour
might be different, it is possible that either or both might be involved in the proposed difficulties with shame and self-alienation as a result of invalidation. Moreover, as previously mentioned, many women who do not meet criteria for full-syndrome eating disorders use a spectrum of disordered eating behaviours to varying degrees (Hotelling, 2011; Mintz & Betz, 1998; Tylka & Subich, 2002a). What this means for the current study’s hypothesized model is that there can be varying levels of each eating strategy within a particular individual. Thus, forms of disordered eating were considered as dimensions of disordered eating and not binary categories.

Method

Participants

The sample was the same in Study One and Study Two. Participants were 276 young women volunteers enrolled in a first-year university introduction to psychology course. Ages ranged from 18 to 25, with a mean age of 18.45 (SD = 1.01). The majority of the sample reported having parents who were married (64.9%), in comparison with those who were divorced (18.8%), separated (8.3%), single (3.6%), or common-law (1.1%). The majority of the sample reported that they were Caucasian (79.3%) in comparison with Asian (6.9%), Bi-Racial (3.3%), other (3.3%) or Black (1.1%). Seven participants (2.5%) reported having been diagnosed with an eating disorder in the past.

Measures

For full details of The Socialization of Emotion Scale (SES; Krause et al., 2003; Appendix A) please see the review in Study One.

For full details of The Authenticity Scale (Wood et al., 2008; Appendix B), please see the review in Study One.
For full details of The Experience of Shame Scale (ESS; Andrews et al., 2002; Appendix C), please see the review in Study One. For the purpose of this study the generated body shame score (i.e. shame about physical characteristics; Andrews et al., 2002) was used for analyses. Cronbach’s alpha for the body shame scale (S –BO) was .87.

The Dutch Eating Behaviour Questionnaire (DEB-Q; van Strien, et al., 1986; Appendix E) is used to assess disordered eating. Two scales; restrained (e.g., “Do you try to eat less at mealtimes then you could like to eat?”; Cronbach’s alpha = .95) and emotional eating were used (e.g. Do you have a desire to eat when you are feeling lonely?”; Cronbach’s alpha = .94). Each subscale is rated on a 5-point Likert scale (from 1 = “never” to 5 = “very often”). For the purpose of this study, the generated Cronbach’s alphas for the restrained and emotional subscales were .95 and .94, respectively.

Procedure

Prior to recruitment, the study received clearance from the University of Guelph Research Ethics Board. Participants were recruited through the University of Guelph’s Psychology Participant Pool. Informed consent was received from all participants prior to the start of the study. Administration of all questionnaires was online (see Study 1 for details). The order of questionnaires was counterbalanced to minimize order effects. Participants were debriefed upon completion of the study.

Results

Analytic Plan

To examine the relation between paternal validation and invalidation of emotion and disordered eating (restrained and emotional), bivariate correlations were run. Bivariate correlations were also used to analyze the relation amongst all the hypothesized variables within
the proposed models (i.e., perceived invalidation and validation and self-alienation and body shame, self-alienation and body shame and restrained/emotional eating). Fisher r-to-z transformations were used to analyze the strength of the correlations between each variable in order to determine which associations of the study’s variables were the strongest. To examine the proposed models and assess whether self-alienation or body shame mediated the potential relation between validation/invalidation and restrained or emotional eating, multiple mediator analyses (using the Preacher and Hayes 2008 recommendations) were conducted.

**Descriptive Statistics**

The case of missing data within the current study was dealt with using the pairwise deletion technique. If a case was missing a response on one or more items on a scale, the case was excluded from that particular analysis. However, that case would not have been excluded from other analysis, which included scales where there were no missing data. Prior to beginning the analyses, data were checked for completeness and outliers. When outliers (scores more than three standard deviations from the mean) were detected (a total of four cases for one variable), analyses were run with and without the outliers to determine their actual impact on the analyses. The two analyses yielded nearly identical results: the inclusion or exclusion of the observations did not alter the pattern of results or any decision regarding the statistical significance of the findings. Accordingly, the data associated with these observations were included in all analyses. Participants who indicated having a male other than a father (i.e., uncle, step father, grandfather) as a primary caregiver were included in analysis. Those who identified not having any male primary caregiver were excluded. Descriptive statistics (frequencies, means, and standard deviations) across the sample are found in Table 13.
**Correlations.** Bivariate correlations among all variables are reported in Table 14. The inter-correlation matrix demonstrates that most of the correlations were significant using two-tailed tests. As expected, perceived paternal invalidation was positively correlated with restrained eating, \( r(241) = .21, p < .01, 95\% \text{ CI } [.01, .25] \), emotional eating, \( r(247) = .13, p < .05, 9\% \text{ CI } [.05, .35] \), self-alienation, \( r(248) = .19, p < .01, 95\% \text{ CI } [.07, .31] \) and body shame, \( r(247) = .17, p < .05, 95\% \text{ CI } [.04, .29] \), but perceived paternal validation was not related to restrained eating, \( r(241) = -.09, ns, 95\% \text{ CI } [-.21, .05] \), emotional eating, \( r(237) = -.03, ns, 95\% \text{ CI } [-.16, .11] \), self-alienation, \( r(248) = -.12, ns, 95\% \text{ CI } [-.24, .02] \) and body shame, \( r(274) = -.07, ns, 95\% \text{ CI } [-.19, .07] \).
Table 13

*Frequencies, Means and Standard Deviations for all Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
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<tbody>
<tr>
<td>Paternal Validation</td>
<td>253</td>
<td>4.38</td>
<td>1.51</td>
</tr>
<tr>
<td>Paternal Invalidation</td>
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<td>2.52</td>
<td>1.31</td>
</tr>
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<td>Self-Alienation</td>
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<td>5.53</td>
</tr>
<tr>
<td>Shame (body)</td>
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<td>10.54</td>
<td>3.27</td>
</tr>
<tr>
<td>Restrained Eating</td>
<td>260</td>
<td>25.89</td>
<td>8.91</td>
</tr>
<tr>
<td>Emotional Eating</td>
<td>260</td>
<td>36.55</td>
<td>10.70</td>
</tr>
</tbody>
</table>
Table 14

*Intercorrelation Matrix among Measures*

<table>
<thead>
<tr>
<th></th>
<th>PV</th>
<th>PI</th>
<th>S-A</th>
<th>S (B)</th>
<th>RE</th>
<th>EA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paternal Validation</td>
<td>-.50**</td>
<td>-.12</td>
<td>-.07</td>
<td>-.09</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[-.60, -.41]</td>
<td>[-.24, .02]</td>
<td>[-.19, .07]</td>
<td>[-.21, .05]</td>
<td>[-.16, .11]</td>
<td></td>
</tr>
<tr>
<td>Paternal Invalidation</td>
<td>.19**</td>
<td>.17**</td>
<td>.13*</td>
<td>.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.07, .31]</td>
<td>[.04, .29]</td>
<td>[.01, .25]</td>
<td>[.05, .35]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Alienation</td>
<td>.34**</td>
<td>.17**</td>
<td>.25**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.22, .47]</td>
<td>[.05, .29]</td>
<td>[.11, .38]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shame (body)</td>
<td>.51**</td>
<td>.43**</td>
<td>.28**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.40, .60]</td>
<td>[.33, .51]</td>
<td>[.15, .40]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *denotes significance at the p < .05 level, **denotes significance at the p < .01 level. Values in square brackets indicate the 95% confidence interval for each correlation. PV = paternal validation score, PI = paternal invalidation score, S-A = self-alienation score, S (B) = shame (body) score, RE = restrained eating, EA = emotional eating.
Multiple Mediation Analyses

It was predicted that both self-alienation and body shame would mediate the relation between paternal (in)validation and disordered eating. To test these hypotheses, a multiple mediation analysis was conducted in order to evaluate the indirect effects of two or more mediators simultaneously. Following the recommendations by Preacher and Hayes (2008), a bootstrapping sampling procedure was applied for assessing indirect effects. This is a nonparametric resampling procedure where a large number of samples (5000 in the current study) are drawn with replacement from the full data set. In the present study, the bootstrap procedure was conducted using the SPSS macro provided by Preacher and Hayes (2008). A point estimate for an indirect effect was considered significant if zero was not included in the 95% bias-corrected confidence interval (C.I.).

As there were two dependent variables (restrained and emotional eating) and two independent variables (perceived paternal validation and invalidation), four separate analyses were run using all combinations of dependent and independent variables.

The relation between paternal validation and restrained eating, with self-alienation and body shame serving as mediators. Table 15 summarizes results for the multiple mediation analysis using perceived paternal validation as the independent variable and restrained eating as the dependent variable. For this analysis, neither self-alienation (C.I. = -0.0043 – 0.0081) nor body shame (C.I. = -0.0343 – 0.0106) functioned as a mediator of the relationship between paternal validation and restrained eating. Also, paternal validation was not a significant predictor of restrained eating, \( b = -0.01, SE = .02, ns. \)
The relation between paternal invalidation and restrained eating, with self-alienation and body shame serving as mediators. Table 16 summarizes results for the multiple mediation analysis using perceived paternal invalidation as the independent variable and restrained eating as the dependent variable. For this analysis, self-alienation (C.I. = -0.01461 – 0.0089) did not function as a significant mediator, but body shame did function as a partial mediator of the relationship between paternal invalidation and restrained eating (C.I. = .0099 - .0705). However, the effect size for body shame as a mediator ($r_r = .04$) was small, suggesting low practical significance (Kenny, 2016).

The relation between paternal validation and emotional eating, with self-alienation and body shame serving as mediators. Table 17 summarizes results for the multiple mediation analysis using perceived paternal validation as the independent variable and emotional eating as the dependent variable. For this analysis, self-alienation functioned as a partial mediator of the relationship between paternal validation and emotional eating (C.I. = -.0218 -.0002), but body shame (C.I. = -0.0312 – 0.0088) did not. Furthermore, the effect size for self-alienation as a mediator ($r_r = -.01$) was small, suggesting low practical significance (Kenny, 2016).

The relation between paternal invalidation and emotional eating, with self-alienation and body shame serving as mediators. Table 18 summarizes results for the multiple mediation analysis using perceived paternal invalidation as the independent variable and emotional eating as the dependent variable. For this analysis, self-alienation (C.I. = -0.007 – 0.0345) did not function as a significant mediator, but body shame did function as a partial mediator of the relationship between paternal invalidation and emotional eating (C.I. = .0074 -.0615). However, the effect size for body shame as a mediator ($r_r = .03$) was small, suggesting low practical significance (Kenny, 2016).
Table 15

The Relation between the Paternal Validation and Restrained Eating, with Body Shame and Self-Alienation serving as Mediators

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>-0.0234</td>
<td>0.0205</td>
<td>-1.1456</td>
<td>0.2531</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>-0.0126</td>
<td>0.0178</td>
<td>-0.7089</td>
<td>0.4791</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>-0.0108</td>
<td>-0.0334</td>
<td>0.0115</td>
</tr>
<tr>
<td>Body Shame</td>
<td>-0.0116</td>
<td>-0.0343</td>
<td>0.0106</td>
</tr>
<tr>
<td>Self-Alienation</td>
<td>0.0008</td>
<td>-0.0043</td>
<td>0.0081</td>
</tr>
</tbody>
</table>
Table 16

*The Relation between the Paternal Invalidation and Restrained Eating, with Body Shame and Self-Alienation serving as Mediators*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.0625</td>
<td>0.0282</td>
<td>2.2180</td>
<td>0.0275</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.0266</td>
<td>0.0250</td>
<td>1.0636</td>
<td>0.2886</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0358</td>
<td>0.0061</td>
<td>0.0673</td>
</tr>
<tr>
<td>Body Shame</td>
<td>0.0379</td>
<td>0.0099</td>
<td>0.0705</td>
</tr>
<tr>
<td>Self-Alienation</td>
<td>-0.0021</td>
<td>-0.0146</td>
<td>0.0089</td>
</tr>
</tbody>
</table>
Table 17

*The Relation between the Paternal Validation and Emotional Eating, with Body Shame and Self-Alienation serving as Mediators*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>-0.0019</td>
<td>0.0249</td>
<td>-0.0773</td>
<td>0.9385</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.0154</td>
<td>0.0228</td>
<td>0.6754</td>
<td>0.5000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>-0.0173</td>
<td>-0.0413</td>
<td>0.0054</td>
</tr>
<tr>
<td>Body Shame</td>
<td>-0.0101</td>
<td>-0.0312</td>
<td>0.0088</td>
</tr>
<tr>
<td>Self-Alienation</td>
<td>-0.0072</td>
<td>-0.0146</td>
<td>-0.0002</td>
</tr>
</tbody>
</table>
Table 18

The Relation between the Paternal Invalidation and Emotional Eating, with Body Shame and Self-Alienation serving as Mediators

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.1115</td>
<td>0.0338</td>
<td>3.2977</td>
<td>0.0011</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.0673</td>
<td>0.0318</td>
<td>2.1139</td>
<td>0.0355</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0443</td>
<td>0.0141</td>
<td>0.0787</td>
</tr>
<tr>
<td>Body Shame</td>
<td>0.0320</td>
<td>0.0074</td>
<td>0.0615</td>
</tr>
<tr>
<td>Self-Alienation</td>
<td>0.0123</td>
<td>-0.0007</td>
<td>0.0345</td>
</tr>
</tbody>
</table>
Discussion

Disordered eating, or subclinical eating concerns are estimated as extremely common, especially among university-age women (Hesse-Biber et al., 1999). In the literature on familial risk factors of eating pathology, early research tended to focus on the mother’s role (Ward et al., 2003; Pace et al., 2011). A more recent shift has explored the father-daughter relation (Berger et al., 1995; Botta & Dumlao, 2002; Meyer & Gillings, 2004; Pace et al., 2011; Steiger et al., 1989), and specifically invalidation of emotional experience in the role of eating issues (Buckholdt et al., 2014; Kent et al., 2007; Halsam et al., 2007; Halsam et al., 2012; Mountford et al., 2007). Thus, the aim of this second study was to examine the relation between perceived paternal emotional (in)validation in childhood and disordered eating in emerging adult. Within models that address invalidation in the development of problematic eating behaviours, there is a suggestion that such behaviours tend to be used as escape coping mechanisms (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014; McCarthy, 1990). Based on these models, two mediators, authenticity and shame, were explored.

Paternal Invalidation and Disordered Eating

The first research question addressed whether disordered eating was related to a daughter’s perception of her father’s response to emotions in childhood. Based on prior research and theory (Buckholdt et al., 2010; Halsam et al., 2007; Halsam et al., 2012; Haynos & Fruzzetti, 2011; Kent et al., 2007; Mountford et al., 2007;), it was predicted that participants who reported higher levels of invalidation would also report higher levels of both restrained and emotional eating. The hypothesis was well supported; there was a positive association between reports of paternal invalidation and both restrained and emotional eating. This is consistent with previous evidence, which suggests that invalidation is related to eating problems (Buckholdt et al., 2014;
Kent et al., 2007), and that paternal invalidation might be of importance in the development of eating issues (Halsam et al., 2007; Halsam et al., 2012; Mountford et al., 2007). Moreover, the notion that an individual can display more than one form of disordered eating was well supported. Results showed that restrained and emotional eating were significantly correlated (i.e., suggesting some correspondence between the two within individuals), in line with previous literature that suggests women who do not meet criteria for full-syndrome eating disorders may use multiple disordered eating strategies to varying degrees (Hotelling, 2011; Mintz & Betz, 1998; Tylka & Subich, 2002a).

Of note also is the fact that while perceived paternal invalidation was positively associated with both restrained and emotional eating, there was no significant correlation between the two types of disorder eating styles and paternal validation. This would suggest that while failure to validate is not associated with problematic eating behaviours, more perceived invalidation is associated with more disordered eating habits. It seems then that for disordered eating, invalidating feedback of a critical or questioning nature may be more salient in impact than the experience of not receiving a validating response to emotion. For instance, in a situation where a child expresses a particular emotion and is met with validating feedback from her father, it may be unrelated to a daughter’s eating behaviours later in life. However, if that same expression is met with criticism or question, it might be perceived negatively and, as such, is recalled as having a significant carry over to eating behaviours. Perhaps restrained eating provides an individual with a way of gaining control when invalidating feedback from the father leaves the daughter unable to directly deal with managing the resulting strong emotions. Restrained eating may give the person a sense of control because it distracts from the uncontrollable internal experience of emotional arousal by externalizing the attention onto the
avoidance of food intake (Dignon et al., 2006) and either numbing or reducing aversive emotional arousal (Federici & Kaplan, 2008; Haynos & Fruzzetti, 2011). Moreover, emotional eating may serve as a distraction or way or coping, by soothing or nurturing the daughter to distract from the emotions, or remove negative emotional arousal (Hawkins & Clement, 1984; Heatherton & Baumeister, 1991; McCarthy, 1990; Spoor et al., 2006; Telch, 1997 van Strien, et al., 1986). This is consistent with earlier writings and the current study’s hypotheses that invalidating responses, through their questioning, denying, or criticizing of a child’s inner experience, lead to many different symptoms of eating pathology (Buckholdt et al., 2014; Haynos & Fruzzetti, 2011; Halsam et al., 2007; Halsam et al., 2012; Kent et al., 2007; Mountford et al., 2007). The current results may also be viewed as consistent with previous work that has demonstrated that that invalidation in childhood is associated with the development of extreme or problematic outcomes (i.e. distress, psychopathology, BPD symptoms, non-suicidal self-injury and emotion dysregulation; Adrian et al., 2010; Fruzzetti et al., 2005; Krause et al., 2003). These results, however, should be interpreted with caution, given the small effect sizes obtained.

**Authenticity as a Mediator of the Relation between Paternal (In)validation and Disordered Eating**

Once it was established that both restrained and emotional eating were higher in those who reported higher levels of paternal invalidation, the next step of this research was to uncover a potential mediator linking invalidation to disordered eating outcomes. Specifically, one component of authenticity, namely, self-alienation, was examined. It was hypothesized that this ability to identify or be consciously aware of one’s inner experience would mediate the relation between paternal response to emotion and disordered eating. Previous theoretical discussions of the concepts as well as associated evidence led to the hypothesis that self-alienation would
mediate the relation between perceived parental invalidation and two forms of DE. The experience of having a parent invalidate the ‘self’ (i.e., emotions, thoughts, wants), would ultimately lead to difficulties of knowing this ‘self’ later in life (Fruzzetti et al., 2005). If one is not consciously aware of one’s internal experience, the person may not have the opportunity to learn the appropriate strategies to contend with negative emotional arousal, and therefore, may be more likely to experience consequential eating pathology as a means of coping via escape or avoidance of unpleasant experiences (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014).

There was partial support for this hypothesis: Only self-alienation mediated the relation between paternal validation and emotional eating. When a daughter perceives her father as more validating, in the context of emotional eating, there was less self-alienation associated with this experience (albeit a small effect size). This is consistent with previous discussions which suggest that if you are able to identify and be aware of your internal experience, you are more likely to have the proper emotion regulation strategy to cope with it (Fruzzetti et al., 2005; Waller et al., 2007) and therefore, less likely to use disordered eating to avoid discomfort (McCarthy, 1990; Mountford et al., 2007). As such, it is possible that the experience of paternal validation helps a daughter to feel integrated within the self, given that her internal and external experience are consistent, which allows her to use other coping strategies rather than eating in response to her emotions. The father has validated (i.e., perceived as acknowledging) the daughter’s experience, supporting her ability to trust her internal experience. Hence, she does not feel alienated from herself in trying to make sense of the difference between internal and external experiences (i.e., if there was invalidation). Later in life, when faced with strong emotions, the arousal associated with such emotional experiences might then be integrated into a coherent and positive sense of
self, reflective of the paternal validation experience in early childhood (Eisenberg et al., 1998). Therefore, there the need to use escape behaviours, such as emotional eating to avoid the arousal and strong feelings, may be lessened (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014). The experience of validation seems to possibly provide internal emotional competence (Eisenberg et al., 1998) without having to necessitate the use of external behaviours to contend with internal experience. The results may lend support to the notion that emotional eating is used to reduce arousal (Hawkins & Clement, 1984; Heatherton & Baumeister, 1991; McCarthy, 1990; Spoor et al., 2006; Telch, 1997; van Strien et al., 1986).

**Shame as a mediator.** The results of the current study demonstrated that body shame significantly mediates the relation between perceived paternal invalidation and both types of disordered eating outcomes, restrained and emotional eating. The fact that shame functioned as a mediator in this relation is consistent with the suggestion that bivariate associations between family dysfunction and symptoms are likely too simple and that there are mechanisms, which play a role within such relations (Jones et al., 2006; Murray et al., 2000; Waller & Calam, 1994). This is consistent also with the transactional model of eating disorders which hypothesizes that invalidating environments lead to consequential difficulties coping with emotional arousal and negative feelings (such as shame), and as a result, eating disordered behaviours are used, at least in part, to reduce such feelings (Haynos & Fruzzetti, 2011). The current results are furthermore in line with previous research in which shame was a mediator of familial issues and disordered eating (Andrews, 1997; Murray et al., 2000). These results are consistent with other research that suggests shame as a possible factor in the link between paternal invalidation and disordered eating (Buckholdt et al., 2014; Haslam et al., 2012; Mountford et al., 2007).
Based on previous research, the current results may suggest that invalidating responses, although they do not teach a child to appropriately socialize and regulate emotions, can result in difficulty coping with negative emotions, such as shame (Fruzzetti et al., 2005). This may be the consequence of emotional skills deficits that result from not learning to properly label emotions, or the experience of secondary emotions such as shame in place of sadness that result from invalidation. Another possibility is that invalidating environments leads to an increase in emotional arousal, especially in terms of negative emotions (Haynos & Fruzzetti, 2011). In each situation, there may be a decrease in the ability to contend with such experiences. Thus, disordered eating may be used as a means of coping (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014). Eating behaviours may provide the child with an escape from the arousal engendered by negative emotions (Fruzzetti et al., 2005). Behaviours such as restrictive food intake, exercising, binge eating and purging provide a brief reduction in aversive emotional arousal or help to numb negative feelings such as shame by distracting or suppressing such experiences (Haynos & Fruzzetti, 2011; Hughes-Scalise & Connell, 2014). If a daughter is exposed to paternal invalidation and resulting negative emotions, she may miss out on the opportunity to properly label, understand and therefore, contend with such an experience. As such, when she feels a negative emotion, such as shame, later in life, she will not have learned how to appropriately label, and/or regulate it. As a consequence, disordered eating behaviours may serve as a means of numbing or distracting her from this internal experience, rather than using emotion focused problem solving or effectively contending with it. This result should be interpreted with caution, however, given that the mediating effect size was small. This was possibly in part due to the fact that the current study assessed disordered eating within a sample of university-aged women, who may not have experienced significant eating issues as do those in
a clinical population. Moreover, as mentioned in Study 1, participants had perceived significantly less paternal invalidation than validation. Thus, they might not be representative of the extreme invalidation that these earlier theories are referencing.

The current study’s results are also consistent with the finding that shame is a predictor of eating pathology (Burney & Irwin, 2000; Jones et al., 2006; Mussell et al., 2000), that body shame is considered one of the best predictors of eating disorders (Burney & Irwin, 2000; Mussell et al., 2000), and that shame is associated with eating disorder symptoms (Gee & Troop, 2003; Sanftner et al., 1995) and subclinical eating disorders (Kirsten & du Plessis, 2008).

**Limitations and Future Directions**

Limitations to the current study were similar to the first study. The study sample was relatively homogenous. For instance, there was little diversity in terms of race (the sample was 79% Caucasian), family constellation, and education level. Future research might focus on a more varied sample in terms of family make-up (i.e. single parent or divorced families etc.), racial diversity and with different levels of education (the participants were all university students), as these factors might contribute to differences in the explored outcomes. As previously mentioned in Study 1, culture may play a significant role in father-daughter relationships, given the culturally variable role of fathers (Garbarino, 1999; Hewlett, 2000; Hofferth et al., 2002; Paquette, 2004). Moreover, two-parent families may provide some protective benefit to invalidating experiences from one parent (Bolger & Patterson, 2003). In addition, reports of paternal invalidation were retrospective and one-sided. There are obvious drawbacks to this type of approach. The current design of the study does not allow one to conclude that fathers affect later behaviour of their daughter. It can only be said that there is a relation between retrospective accounts and current level of disordered eating. It may be that to
the extent that one experiences eating issues in emerging adulthood, one will have negative perceptions of paternal relationship (Nielson, 2012). That is, because eating issues distort a daughter’s perspective on herself and others, she may see her father in an inaccurate or exaggerated manner (Botta & Dumlao, 2002; Elliot, 2010; Maine, 2004). Therefore, it cannot be determined whether a negative perspective on the father-daughter relationship is actually the cause of eating difficulties (Nielson, 2012). Similar to suggestions for the first study, future studies should focus on longitudinal designs to determine causality and directionality of the relation. For instance, observations of father-daughter interactions may be used in conjunction with follow-up assessments of measured outcomes. Moreover, it may be helpful to include the father’s view in future research. Lastly, in future research, different parent-child combinations, such as fathers and sons and mothers and daughters, would assist in determining whether there is something unique about each parent-child dyad and disordered eating.

**Clinical Implications**

These findings potentially shed light on how certain parenting practices in early childhood, at least when it comes to the father-daughter relationship, might influence later eating pathology in daughters. It is hoped that these findings will inform how researchers and clinicians consider the paternal role, especially in terms of invalidation, when it comes to assessing subclinical eating pathology. With regard to the practical implications, the results of the current study may suggest to clinicians the potential importance of an invalidating father-daughter relationship when emerging adult women present with eating disturbances. With regard to intervention, upon replication with clinical samples, the results may point to the application of certain aspects of the dialectical behavioural therapy model (Linehan, 1993), paying specific attention to balancing the acceptance-change dialectic. For instance, it may be especially
important to balance validating clients who present with disordered eating and a history of invalidation prior to, and throughout the course of problem-solving or change work. Similarly, it may be beneficial for clinicians to focus on distress tolerance strategies in such situations. This may be beneficial to help protect against certain potential outcomes associated with paternal invalidation, especially in those who experience shame as a response. If these models extend to younger girls, validating environments may be protective. As such, parents can be taught to enhance their use of validation (Mountford et al., 2007).

**Conclusion**

The present study makes a contribution to our knowledge of how fathers’ response to their daughters’ emotions in childhood relates to daughters’ eating behaviours in emerging adulthood. Perceived paternal invalidation was directly associated to higher levels of disordered eating, both restrained and emotional. Further analyses found that self-alienation (a lack of authenticity) mediated the relation between perceived paternal validation and emotional eating, while shame mediated the relation between invalidation and both restrained as well as emotional eating. This research further contributes to understanding the father-daughter relationship, previously referred to as the least well understood and studies of the family relationships (Secunda, 2002).

Both Study 1 and Study 2 contribute to evidence, which suggests that the perceived experience of emotional (in)validation in childhood is significantly associated with outcomes later in life (Adrian et al., 2010; Fruzzetti et al., 2005; Krause et al., 2003). Such research implicates the role that a father’s response to his child’s emotions in childhood might play a role in long-term development. As such, it is important to understand other potential outcomes, and mediators of such outcomes of invalidation. For instance, it might be helpful to explore the role
of invalidation in the development of other escape or avoidance behaviours, such as substance use and/or dangerous sensation-seeking. Symptoms of other full-syndrome diagnoses may be explored, such as mood and anxiety disorders, and all personality disorders (Sauer & Baer, 2010). The implications of (in)validation in interpersonal relationships beyond connectedness could be further explored by looking at interpersonal skills development and relationship satisfaction later in life. Potential mediators regarding emotional arousal, emotion dysregulation, emotional skills and beliefs around emotions may also be examined in an effort to fully understand and confirm their roles in the previously mentioned (in)validation models (Fruzzetti et al., 2005; Haynos & Fruzzetti, 2011; Linehan, 1993). Also, it will be important to understand whether validation (or the positive socialization of emotion) plays a role, potentially in outcomes such as effective coping and the regulation and management of emotions. The exploration of how these reactions have implications for different mediators and outcomes will help us understand the long-term impact of, and developmental processes behind, the socialization of emotion in childhood. The knowledge of these processes could be useful in applied settings, especially for when clinicians may need to contextualize clients’ symptoms if they present with a history of invalidation and to aid in the treatment then of such symptoms. As mentioned, it may be particularly important for clinicians to identify a history or perception of an invalidating environment, as it can be subtle (Mountford et al., 2007) and may be important in the development of a sense of connectedness in interpersonal relationships and eating pathology.


Appendix A

Socialization of Emotion Scale – Father

For the following statements, please indicate on a scale of 1 (very unlikely) to 7 (very likely) the likelihood that your father (or another primary male if your father was not involved in your upbringing) would respond in each of the ways listed for each item. Please read each item carefully and respond as honestly as you can. For each response, please select a number from 1 to 7.

1. Who was the primary male responsible for your upbringing?
   - ○ none, there was no primary male during my upbringing.
   - ○ father
   - ○ other, relationship to you [ ]

   1 2 3 4 5 6 7
   Very unlikely   Medium   Very likely

1. If I lost some prized possession and reacted with tears, my father would:
   a. get upset with me for being so careless and crying 1 2 3 4 5 6 7
   b. tell me that I was over-reacting 1 2 3 4 5 6 7
   c. help me think of places I hadn’t looked yet 1 2 3 4 5 6 7
   d. distract me by talking about happy things 1 2 3 4 5 6 7
   e. tell me it’s okay to cry when you feel unhappy 1 2 3 4 5 6 7
   f. tell me that’s what happens when you’re not careful 1 2 3 4 5 6 7

2. If I was going to spend the afternoon at a friend’s house and became nervous and upset because my father couldn’t stay there with me, my father would:
a. distract me by talking about all the fun I was going to have with my friend 1 2 3 4 5 6 7
b. help me think of things I could do so that being at the friend’s house without him wasn’t scary (e.g., take a favorite book or toy with me) 1 2 3 4 5 6 7
c. tell me to quit overreacting and being a baby 1 2 3 4 5 6 7
d. tell me that if I didn’t stop that I wouldn’t be allowed to go out anymore 1 2 3 4 5 6 7
e. feel upset and uncomfortable because of my reactions 1 2 3 4 5 6 7
f. encourage me to talk about my nervous feelings 1 2 3 4 5 6 7

3. If I was about to appear in a recital or sports activity and became visibly nervous about people watching me, my father would:
   a. help me think of things that I could do to get ready for my turn 1 2 3 4 5 6 7
   b. suggest that I think about something relaxing so my nervousness would go away 1 2 3 4 5 6 7
c. tell me that I was being a baby about it 1 2 3 4 5 6 7
d. tell me that if I didn’t calm down, we’d have to leave and go home right away 1 2 3 4 5 6 7
e. encourage me to talk about my nervous feelings 1 2 3 4 5 6 7

4. If I was panicky and couldn’t go to sleep after watching a scary TV show, my father would:
   a. encourage me to talk about what scared me 1 2 3 4 5 6 7
   b. get upset with me for being silly 1 2 3 4 5 6 7
c. tell me I was overreacting 1 2 3 4 5 6 7
d. help me think of something to do so that I could get to sleep 1 2 3 4 5 6 7
e. tell me to go to bed or I wouldn’t be allowed to watch any more TV 1 2 3 4 5 6 7
f. do something fun with me to help me forget about what scared me 1 2 3 4 5 6 7

5. If I was at a park and appeared on the verge of tears because the other children were being mean to me and wouldn’t let me play with them, my father would:

a. tell me that if I started crying then we’d have to go home right away 1 2 3 4 5 6 7
b. tell me I was overreacting 1 2 3 4 5 6 7
c. comfort me and try to get me to think about something happy 1 2 3 4 5 6 7
d. help me think of something else to do 1 2 3 4 5 6 7
e. tell me that I would feel better soon 1 2 3 4 5 6 7

6. If I was shy and scared around strangers and consistently became teary and wanted to stay in my bedroom whenever family friends came to visit, my father would:

a. help me think of things to do that would make meeting his friends less scary 1 2 3 4 5 6 7
b. tell me that it’s okay to feel nervous 1 2 3 4 5 6 7
c. try to make me happy by talking about the fun things we can do with the friends 1 2 3 4 5 6 7
d. feel upset and uncomfortable because of my reactions 1 2 3 4 5 6 7
e. tell me that I was being a baby 1 2 3 4 5 6 7
Appendix B

Items of the Authenticity Scale

1“I think it is better to be yourself, than to be popular.”
2“I don't know how I really feel inside.”
3“I am strongly influenced by the opinions of others.”
4“I usually do what other people tell me to do.”
5“I always feel I need to do what others expect me to do.”
6“Other people influence me greatly.”
7“I feel as if I don't know myself very well.”
8“I always stand by what I believe in.”
9“I am true to myself in most situations.”
10“I feel out of touch with the `real me.'”
11“I live in accordance with my values and beliefs.”
12“I feel alienated from myself.”

Scoring Instructions

All items are presented on a 1 (does not describe me at all) to 7 (describes me very well) scale. Total Items 1, 8, 9, and 11 for Authentic Living; Items 3, 4, 5, and 6 for Accepting External Influence; and Items 2, 7, 10, and 12 for Self-Alienation.
Appendix C

Everybody at times can feel embarrassed, self-conscious or ashamed. These questions are about such feelings if they occurred at any time in the past year. There no ‘right’ or ‘wrong’ answers. Please indicate the response, which applies to you with a tick.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all (1)</th>
<th>A little (2)</th>
<th>Moderately (3)</th>
<th>Very much (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you felt ashamed of any of your personal habits?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Have you worried about what other people think of your personal habits?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Have you tried to cover up or conceal any of your personal habits?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Have you felt ashamed of your manner with others?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Have you worried about what other people think about your manner with others?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Have you avoided people because of your manner?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Have you felt ashamed of the sort of person you are?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Have you worried about what other people think of the sort of person you are?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Have you tried to conceal from others the sort of person you are?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Have you felt ashamed of your ability to do things?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>11. Have you worried about what other people think of your ability to do things?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Have you avoided people because of your inability to do things?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Do you feel ashamed when you do something wrong?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Have you worried about what other people think of you when you do something wrong?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Have you tried to cover up or conceal things you felt ashamed of having done</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>16. Have you felt ashamed when you said something stupid?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. Have you worried about what other people think of you when you said something stupid?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. Have you avoided contact with anyone who knew you said something stupid?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. Have you felt ashamed when you failed at something which was important to you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20. Have you worried about what other people think of you when you failed in a competitive situation?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. Have you avoided people who have seen you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>22. Have you felt ashamed of your body or any part of it?</td>
<td>23. Have you worried about what other people think of your appearance?</td>
<td>24. Have you avoided looking at yourself in the mirror?</td>
<td>25. Have you wanted to hide or conceal your body or any part of it?</td>
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</tr>
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<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix D

The Hemingway Name/Number:______________ Date:___

Measure of Late Adolescent Sex: Male__ Female__ Grade:__ Age:___

Connectedness (College MAC 4) Race/ethnicity:White__ Black__ Hispanic__

M. J. Karcher, Ed.D., Ph.D., University of Texas _ San Antonio

Asian__ Bi-racial__ Other: _________

Please use this survey to tell us about yourself. Read each statement. CIRCLE the number that best describes how true that statement is for you or how much you agree with it. If a statement is unclear to you, ask for an explanation. If it still unclear, put a " ?".

“How TRUE about you is each sentence?” Not at all Not really Sort of true True Very true

(1) I like spending time in the community where I live (at school). 1 2 3 4 5
(2) Spending time with my friends is the best part of my day. 1 2 3 4 5
(3) I can name 5 things that my friends really like about me. 1 2 3 4 5
(4) I want my parents to be proud of me. 1 2 3 4 5
(5) I have a lot of fun with my brother(s) or sister(s). 1 2 3 4 5
(6) I work hard at school. 1 2 3 4 5
(7) Many of the other students bother me. 1 2 3 4 5
(8) I care what my professors think of me. 1 2 3 4 5
(9) I will have a good life ahead of me. 1 2 3 4 5
(10) I enjoy spending time by myself reading. 1 2 3 4 5
(11) There’s nobody I like spending time with around where I live. 1 2 3 4 5
(12) I have friends I’m really close to and trust completely. 1 2 3 4 5
(13) I am happy with the kind of person I am. 1 2 3 4 5
(14) It is important that my parents trust me. 1 2 3 4 5
(15) I feel close to my brother(s) or sister(s). 1 2 3 4 5
(16) I enjoy being at school. 1 2 3 4 5
(17) I like pretty much all of the other kids in my grade. 1 2 3 4 5

How TRUE about you is each sentence?” Not at all Not really Sort of true True Very true

(18) I want to be respected by my professors. 1 2 3 4 5
(19) Doing well in school will help me get the things I want out of life. 1 2 3 4 5
(20) I love to read. 1 2 3 4 5
(21) I feel lonely where I live (like in my neighborhood or community). 1 2 3 4 5
(22) Spending time with my friends is an important part of my life. 1 2 3 4 5
(23) I can name 3 things that others like about me. 1 2 3 4 5
(24) I enjoy spending time with the elders in my family (like my parents) 1 2 3 4 5
(25) I enjoy spending time with my brothers/sisters. 1 2 3 4 5
(26) I put as little effort into my college work as I can. 1 2 3 4 5
(27) I like working on projects with the students in my classes. 1 2 3 4 5
(28) I usually get along with my professors. 1 2 3 4 5
(29) I do things outside of school to prepare for my future. 1 2 3 4 5
(30) I never read books in my free time. 1 2 3 4 5
(31) I spend a lot of time in my neighborhood or community. 1 2 3 4 5
(32) My friends and I talk about personal things that are important to us. 1 2 3 4 5
(33) I really like who I am. 1 2 3 4 5
(34) My parents and I argue about things a lot. 1 2 3 4 5
(35) I try to spend time with my brothers/sisters when I can. 1 2 3 4 5
(36) I work hard to make my parents proud of me. 1 2 3 4 5
How TRUE about you is each sentence? Not at all Not really Sort of true True Very true
(37) I get along well with the other students in my classes. 1 2 3 4 5
(38) I try to get along with my professors. 1 2 3 4 5
(39) I do lots of things in school to prepare for my future. 1 2 3 4 5
(40) I often read when I have free time. 1 2 3 4 5
(41) I hang out a lot with others in my neighborhood where I live. 1 2 3 4 5
(42) I spend a lot of time with my friends outside of school. 1 2 3 4 5
(43) I have special hobbies, skills, or talents. 1 2 3 4 5
(44) I get along with the elders in my family (like my parents) 1 2 3 4 5
(45) I spend a lot of time with my brother/sister(s). 1 2 3 4 5
(46) I feel good about myself when I am at school. 1 2 3 4 5
(47) People usually think I have a lot going for me in life. 1 2 3 4 5
Not at all Not really Sort of True Very true
(48) I always try hard to earn my professors' trust. 1 2 3 4 5
(49) Thinking about my future keeps me from getting in trouble. 1 2 3 4 5
(50) For fun I read on my own at least once a week. 1 2 3 4 5
(51) My neighborhood (or town) is boring. 1 2 3 4 5
(52) My friends and I spend a lot of time talking about things. 1 2 3 4 5
(53) Students who do well in school usually get better jobs. 1 2 3 4 5
(54) I have unique interests or skills that make me interesting. 1 2 3 4 5
(55) I am liked by my classmates. 1 2 3 4 5
How TRUE about you is each sentence? Not at all Not really Sort of true True Very true
(56) I enjoy spending time with my father. 1 2 3 4 5
(57) I enjoy spending time with my mother. 1 2 3 4 5
(58) I like getting to know people from other cultural or racial groups. 1 2 3 4 5
(59) I get very angry when people tease me or put me down. 1 2 3 4 5
(60) I think prejudice and hatred between racial groups is a big problem. 1 2 3 4 5
(61) My religion is very important to me. 1 2 3 4 5
(62) My father and I are pretty close. 1 2 3 4 5
(63) My mother and I are pretty close. 1 2 3 4 5
(64) I get very angry when people criticize me. 1 2 3 4 5
(65) I would like to have friends from different cultural/racial backgrounds than my own.
(66) I attend a religious service (like church) at least once a month. 1 2 3 4 5
(67) My father cares a lot about me. 1 2 3 4 5
(68) My mother cares a lot about me. 1 2 3 4 5
(69) My father and I argue a lot. 1 2 3 4 5
(70) My mother and I argue a lot. 1 2 3 4 5
(71) I like getting to know people who are culturally different from me. 1 2 3 4 5
(72) I get pretty upset when other people are mean or rude to me. 1 2 3 4 5
(73) I am a religious or faithful person. 1 2 3 4 5
(74) I talk with my father about very personal things and problems. 1 2 3 4 5
(75) I talk with my mother about very personal things and problems. 1 2 3 4 5

_ You finished the MAC—thanks for doing this! _
Appendix E

Dutch Eating Behaviour Questionnaire

Below you will find a list of statements. Please rate how true each statement is for you by selecting the most appropriate number. Use the scale below to make your choice.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you have put on weight, do you eat less than you usually do?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Do you try to eat less at mealtimes than you would like to eat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>How often do you refuse food or drink offered because you are concerned about your weight?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Do you watch exactly what you eat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Do you deliberately eat foods that are slimming?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>When you have eaten too much, do you eat less than usual the following days?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Do you deliberately eat less in order not to become heavier?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>How often do you try not to eat between meals because you are watching your weight?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>How often in the evening do you try not to eat because you are watching your weight?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Do you take into account your weight with what you eat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Do you have the desire to eat when you are irritated?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Question</td>
<td>Scale</td>
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<td>-------------------------------------------------------------------------</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Do you have a desire to eat when you have nothing to do?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are depressed or discouraged?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are feeling lonely?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when somebody lets you down?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are cross?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are approaching something unpleasant to happen?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you get the desire to eat when you are anxious, worried, or tense?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when things are going against you and when things have gone wrong?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are frightened?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are disappointed?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a desire to eat when you are emotionally upset?</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>Do you have a desire to eat when you are bored or restless?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>If food tastes good to you, do you eat more than usual?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If food smells and looks good, do you eat more than usual?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>If you see or smell something delicious, do you have a desire to eat it?</td>
<td>1 2 3 4 5</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>1</td>
<td>2</td>
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<td>-------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>If you have something delicious to eat, do you eat it straight away?</td>
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<tr>
<td>If you walk past the baker do you have the desire to buy something delicious?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>If you walk past a snackbar or a café, do you have the desire to buy something delicious?</td>
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<tr>
<td>If you see others eating, do you also have the desire to eat?</td>
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<tr>
<td>Can you resist eating delicious foods?</td>
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<tr>
<td>Do you eat more than usual, when you see others eating?</td>
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</tr>
<tr>
<td>When preparing a meal are you inclined to eat something?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>