Perceived Parental Rejection in Middle Childhood as a Predictor of Lower Adulthood Resilience

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ABSTRACT. Negative relationships with parents can affect psychological adjustment, coping, and stress levels. It is possible that these relationships can also impact resilience, although this is an area not greatly explored. Resilience is the ability to bounce back from, or thrive despite, potentially traumatic events. One theoretical framework from which to explore resilience’s association with perceived negative parental relationships is interpersonal acceptance-rejection theory, or IPARTheory, a theory of human development aiming to uncover the associated outcomes of perceived acceptance and rejection from significant others. Research investigating IPARTheory has revealed that perceived parental rejection is negatively associated with well-being, with some evidence for a negative association with resilience. Thus, we sought to investigate if perceived parental rejection would predict lower resiliency, for both women and men, and how the predictive strength of perceived maternal and paternal rejection might differ for men and women separately. Participants (N= 308; M age = 36.29) were recruited via snowball sampling and Amazon Mechanical Turk, and they completed measures of perceived parental acceptance-rejection and resilience. Using multiple linear regression, we found that perceived paternal rejection—but not perceived maternal rejection—predicted lower resilience for men and women combined (β = -.19, p = .007). However, analyzing genders separately, the only significant regression was perceived paternal rejection predicting lower resilience for men (β = -.29, p = .02). Additional results controlling for age are reported. The present findings suggest that perceived parental rejection is an imperative focus for future resilience research and intervention.
hostility, neglect, or some other form of rejection—is correlated with negative self-adequacy, negative self-esteem, and reduced stress management (Rohner & Rising, 2006).

Despite the importance of resilience (McCanlies, Mnatsakanova, Andrew, Burchfiel, & Violanti, 2014) and the negative effects of perceived parental rejection (Rohner, 2004), only a few studies have evaluated their relationship. Sart, Börkan, Erkman, and Serbest (2016) conducted a mediational study and found that resilience mediated the relationship between perceived rejection and depressive symptoms for female, but not male, Turkish college students. Mekhaimer (1996) demonstrated that psychological hardiness, a construct related to resilience, negatively correlated with perceived parental rejection. Additionally, in a review article, Rohner (2005) suggested that resilience, coupled with healthy relationships, is integral to overcoming the effects of perceived parental rejection. Therefore, the paucity of studies on perceived parental rejection and resilience suggests that more research is warranted. Additionally, to our knowledge, no published studies have focused solely on perceived rejection’s ability to predict lower resilience. Thus, the goal of the present study was to analyze the predictive effect of perceived parental rejection on resilience. The predictors and correlates of resilience are an important domain to study because resilience is negatively associated with symptoms of posttraumatic stress disorder, such that resilience seems to protect against the development of the disorder following trauma (McCanlies et al., 2014). Moreover, resilience is associated with emotion regulation (Karreman & Vingerhoets, 2012) and quality of life (Mizuno et al., 2016).

Resilience
Resilience as a theory and construct has undergone much conceptual development (Richardson, 2002). The following sections address resilience’s seminal research, definitions, and correlates.

History and seminal work. In his seminal work, Garmezy (1971) described children of schizophrenic mothers, who showed variation in whether they struggled with mental health as adults, and factors that classified a child as vulnerable, such as disorganized familial structures. More importantly, he discussed children whom he called “invulnerables,” children who thrive behaviorally, socially, and productively despite familial and ecological indicators that they should not (Garmezy, 1971). This “invulnerability” would later be called resilience. Resilience emerged from phenomenology as an area of inquiry encompassing persona and interpersonal strengths that researchers believed could be embodied to grow through adversity (Richardson, 2002). Today, correlates of the construct are better understood, but its definition continues to be debated.

Defining and conceptualizing resilience. Following trauma, people can react with a range of responses, from “the development of persistent stress-related disorders to posttraumatic growth” (Nugent, Sumner, & Amstadter, 2014, p. 1). The two core concepts of resilience are adversity and positive adaptation to it (Fletcher & Sarkar, 2013). Additionally, Grych, Hamby, and Banyard (2015) argued that the construct includes both the assets required for adaptation and the act of functioning well after trauma. Fletcher and Sarkar (2013) reviewed the many definitions of resilience and concluded by defining it as growing through, thriving in spite of, or bouncing back from potentially traumatic events, due to protective mental assets and behaviors. However, although some researchers have noted it as distinct from coping (Campbell-Sills, Cohan, & Stein, 2006), adaptation, or resistance (Smith et al., 2008), others have argued that it can be conceptualized as growth rather than just recovery (Richardson, 2002). Overall, stemming from the Latin verb resilire (“to spring back”), resilience is, at its core, the ability to bounce back from stress (Smith et al., 2008).

In addition to the varying definitions of resilience, it can be conceptualized in differing ways. Specifically, a dialogue between Southwick, Bonanno, Masten, Panter-Brick, and Yehuda (2014) resulted in multiple conceptualizations: normal functioning throughout adversity (Bonanno), a decision to continue on with a growth-oriented mindset (Yehuda), the ability for positive adaptation within a threatened system (Masten), and a process of garnering resources to maintain health (Panter-Brick). Although some theorists have debated whether resilience is a stable personality trait or a fluid construct (Fletcher & Sarkar, 2013), other researchers have agreed with Panter-Brick (2014) that resilience is a process that is able to be developed (Flett & Hewitt, 2014; Grych et al., 2015). Indeed, in support of the latter, research has shown that resilience can increase over the course of cognitive behavioral therapy (Chen et al., 2014), thereby implying that it is not a stable characteristic.

Bridging definitions and theories. Researchers have suggested various and evolving definitions of
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resilience (Nugent et al., 2014). However, some researchers have combined these various definitions to examine resilience from a multidisciplinary perspective (Grych et al., 2015) or as a metatheory (Richardson, 2002). Grych et al. (2015) posited a theoretical model of resilience called the “resilience portfolio,” combining positive psychology, posttraumatic growth, and coping, to provide a comprehensive view of resilience that includes regulatory, interpersonal, and meaning-making strengths. Similarly, Richardson’s (2002) resilience metatheory combined many fields and encompassed psychoimmunology, biopsychospiritual homeostasis, and defined resilience as growing through adversity—“the force within everyone that drives them to seek self-actualization” (p. 313). In the present study, which uses the Brief Resilience Scale (Smith et al., 2008; see Method section), we chose to define resilience as bouncing back from stress (Smith et al., 2008) and as growing through, or thriving despite, potentially traumatic events (Fletcher & Sarkar, 2013).

Correlates and Predictors of Resilience

Resilience is positively correlated with numerous factors. These include well-being, optimism (Petros, Opacka-Juffry, & Huber, 2013), self-efficacy (Fletcher & Sarkar, 2013; Petros et al., 2013), and self-esteem (Mizuno et al., 2016), while gender and age do not significantly predict resilience (Petros et al., 2013). Bonanno (2004) also found that resilience was correlated with hardness, positive emotion and affect, and extraversion, as well as quality of life and social functioning (Mizuno et al., 2016). Further, it is predicted by (Mizuno et al., 2016), correlated with, and supported by spirituality or belief in a higher power (Brewer-Smith & Koenig, 2014; Fletcher & Sarkar, 2013; Grych et al., 2015; Nugent et al., 2014; Richardson, 2002).

Psychological and biological correlates and predictors. Resilience appears to be supported by mental health. Indeed, resilience is negatively correlated with depression (Mizuo et al., 2016; Petros et al., 2013; Sart et al., 2016; Smith et al., 2008), hopelessness (Mizuno et al., 2016), and anxiety (Petros et al., 2013; Smith et al., 2008). Similarly, Loh, Schutte, and Thorstensson (2014) found resilience to mediate the relationship between depression and negative affect. Likewise, Sart et al. (2016) found that, for women but not for men, resilience fully mediated the relationship between perceived parental rejection and depression. Further, resilience seems to be higher in psychologically healthy people as compared to those with psychological disorders such as schizophrenia or bipolar disorder (Mizuno et al., 2016).

The work of Mizuno et al. (2016) and Petros et al. (2013) provides contrasting evidence for a biological basis of resilience. Specifically, Petros et al. (2013) found that resilience positively correlated with and predicted levels of dehydroepiandrosterone sulphate (DHEA-S), which helps to control the cortisol response of the hypothalamic-pituitary-adrenal axis under stress. Conversely, Mizuno et al. (2016) did not find resilience to be significantly related to any of the biomarkers they explored (e.g., plasma brain-derived neurotrophic factor, adrenocorticotropic hormone, cortisol). It appears that future research is needed to clarify biomarkers of resilience.

Parenting and Resilience

In the present study, we employed a developmental perspective to evaluating resilience. The following sections address the connection between resilience and developmental factors such as family and parenting.

Family and ecology. Resilience levels seem to be closely connected to ecological (Bell, Romano, & Flynn, 2013) and familial factors (Wyman et al., 1999), leading us to believe that they may also be connected to perceived parental acceptance and rejection within IPARTTheory (Rohner & Khaleque, 2002). Specifically, Bell et al. (2013) examined the multilevel ecological correlates (i.e., Bronfenbrenner’s ecological systems theory model; Bronfenbrenner, 1977) influencing children’s outcomes within the child-welfare system, such as resiliency as measured by normative levels on indicators of well-being (e.g., conduct, academic performance). Their results showed that more exposure to maltreatment (a child-level ecological variable) predicted less emotional resilience. Moreover, family-level variables (e.g., ineffective parenting) accounted for a moderate amount of the variance in resilience as measured by behavioral function (e.g., prosocial behavior). Thus, familial and maltreatment ecological factors account for much variance in resilience.

Parenting. Most important to the current study, resilience appears to be connected to parenting and familial stress (Krtizas & Grobler, 2005; Petros et al., 2013; Wyman et al. 1999). Specifically, Petros et al. (2013) found that resilience significantly and negatively correlated with early life stress (i.e., in adolescence). Additionally, in terms of parenting
styles and resilience, Kritzas and Grobler (2005) found that authoritative parenting accounted for the most variance in resilience. Moore and Shell (2017) found that maternal support predicted lower internalizing symptoms, such as depression, which is negatively correlated with resilience (Sart et al., 2016), and higher self-esteem, a variable positively correlated with resilience (Mizuno et al., 2016). Similarly, parents’ emotionally responsive and competent parenting (e.g., nurturing involvement, authoritative discipline) has been shown to mediate the relationship between the criterion variable resilience and the predictors, psychosocial support, and relational history (Wyman et al., 1999). Further, unresponsive parenting is a predictor of reduced resilience (Wyman et al., 1999).

Parental attachment. One specific theory of parenting is attachment theory, which also appears to be intertwined with resilience (Li, 2008). Secure attachment has been shown to significantly predict resilience (Farber & Egeland, 1987; Karrman & Vingerhoets, 2012), in addition to healthy emotion regulation (Karrman & Vingerhoets, 2012). Further, resilience and emotion regulation together mediate the relationship between insecure attachment and well-being (Karrman & Vingerhoets, 2012). Similarly, secure attachment and resilience in college students has been shown to together predict the ability to cope with stress (Li, 2008). Moreover, some researchers have posited that resilience can be increased through parental attachment, particularly to treat complex trauma (Kinniburgh, Blaustein, Spinazzola, & Van der Kolk, 2005). Secure parental attachment seems to be protective against variables negatively correlated with resilience (e.g., depression; Sart et al., 2016). Fox and Borelli (2015) found that attachment security moderated the relationship between maternal depression and child depressive symptoms, such that there was a significant relationship between maternal depression and child depression for less securely attached children, but no significant relationship for those who were more securely attached. From these studies, it is evident that parenting relates to resilience levels. One parenting and relational theory that is related to resilience is interpersonal acceptance-rejection theory, or IPART (Rohner & Khaleque, 2002).

Interpersonal Acceptance-Rejection Theory
IPART is a theory of life span development and socialization (Rohner & Khaleque, 2002; Khaleque, 2013). In the following sections, we overview the theory, address subtheories relevant to resilience, and discuss gender differences in perceived rejection.

Overview of the theory. IPART posits that the warmth one perceives affects personality dispositions and experiences in future relationships (Rohner, 2016). One integral aspect of IPART is its emphasis on the child’s perceived rejection or acceptance, rather than objective behavioral observations of the relationship, because what one perceives “as real has real consequences” (Thomas & Thomas, 1928, p. 572 as cited in “Ronald P. Rohner,” 2004). Rejection and acceptance comprise the warmth continuum, spanning coldness (i.e., perceived rejection) to warmth (i.e., perceived acceptance; “Ronald P. Rohner,” 2004). The perception of rejection can be experienced through one or more of the four main behavioral categories: coldness, hostility, neglect, and undifferentiated rejection (i.e., the perception of being rejected without any clear behavioral indicators; Rohner, 2004; Rohner & Khaleque, 2002). Ultimately, perceived parental rejection, specifically (as opposed to perceived rejection in other relationships), is associated with a distinct constellation of personality dispositions called the acceptance-rejection syndrome (Rohner & Rising, 2006) that could also be correlated with resilience levels.

Personality subtheory and the acceptance-rejection syndrome. Research has consistently revealed that perceived parental rejection is associated with the acceptance-rejection syndrome, part of IPART’s personality subtheory (Rohner & Rising, 2006). Acceptance-rejection syndrome (i.e., psychological maladjustment) comprises seven personality dispositions (Rohner, 2004). These include (a) trouble managing anger, (b) dependence or defensive independence, (c) poor self-esteem, (d) reduced self-adaptability, (e) unstable emotions (e.g., reduced ability to manage stress), (f) emotional unresponsiveness (e.g., trouble giving and receiving love), and (g) negative worldview (e.g., believing the world to be a dangerous place; Rohner, 2004; Rohner & Khaleque, 2002; Rohner & Rising, 2006). In a meta-analysis of 30 studies, Khaleque (2013) found, with strong effect sizes, that these personality dispositions held true across cultures, as did Faherty, Eagan, Ashdown, Brown, and Hanno (2016) in their study of perceived parental rejection in Guatemala. Moreover, these personality dispositions lead to a reduced capacity to deal with stress (“Ronald P. Rohner,” 2004). Therefore, perhaps
Acceptance-rejection syndrome is additionally associated with less resilience, because resilience is positively associated with self-esteem (Mizuno et al., 2016), self-efficacy (Smith et al., 2008), and by definition, stress management (Fletcher & Sarkar, 2013).

In addition to the personality dispositions of acceptance-rejection syndrome enumerated above, perceived parental rejection has been associated with other negative factors that could suggest lower resilience (Rohner & Khaleque, 2002; “Ronald P. Rohner,” 2004; Sart et al., 2016). Namely, rejection is also associated with a tendency to be anxious and insecure, in addition to belief in a wrathful God (“Ronald P. Rohner,” 2004). This is particularly interesting because resilience is positively associated with spirituality (Richardson, 2002). Additionally, resilience is positively associated with social support (Iacoviello & Charney, 2014) and negatively correlated with depression (Sart et al., 2016). In contrast, perceived rejection appears to be associated with trouble in future relationships (Rohner, 2004)—perhaps thereby suggesting lower social support—and is positively correlated with depression (Sart, 2016) as well as externalizing symptoms (e.g., substance abuse, behavioral difficulties; Rohner & Britner, 2002). Additionally, although resilience is correlated with well-being (Petros et al., 2013), perceived rejection is associated with reduced well-being, such as psychosomatic pain (Naz & Kauser, 2012). These relationships appear to suggest a negative relationship between resilience and perceived rejection.

Gender differences in perceived rejection. There appear to be gender differences in the perception of parental rejection and warmth, and in the effects of perceived paternal as compared to maternal rejection. In a study of the ability of perceived parental rejection and warmth to predict hostility, Meesters, Muris, and Esselink (1995) found that men were significantly more likely to denote perceiving less emotional warmth from their parents. Additionally, rejection by the father was the strongest predictor of hostility (Meesters et al., 1995). Likewise, Kausar and Kazmi (2011) also found that sons were significantly more likely than daughters to perceive their fathers as rejecting. No gender difference in participants’ perceptions of mothers was observed (Kausar & Kazmi, 2011). As previously noted, Sart et al. (2016) also observed gender differences in the ability of resilience to mediate the relationship between perceived rejection and depression. However, the results of a cross-cultural meta-analysis (Khaleque & Rohner, 2002a) showed that, regardless of differences in gender, perceived parental rejection is consistently associated with psychological maladjustment, or acceptance-rejection syndrome. As a whole, these findings suggest that it would be fruitful to evaluate gender differences in the ability of perceived rejection to predict resilience.

**Coping subtheory.** When addressing resilience, one subtheory of IPARTheory that is perhaps most relevant is coping subtheory (Rohner, 2004; Rohner & Khaleque, 2002). This theory aims to address why some children who report perceived rejection appear to show little behavioral or psychological indicators of the rejection (Rohner, 2016; “Ronald P. Rohner,” 2004). Indeed, researchers found that about 80% of those who report rejection tended to display the personality correlates expounded above. However, the other 20% (i.e., copers) do seemingly well despite significant rejection (Rohner & Khaleque, 2002). Specifically, two types of copers in IPARTheory are affective copers (i.e., positive mental health despite rejection) and instrumental copers (i.e., despite rejection and reduced mental health, success at task-oriented undertakings such as schoolwork; Rohner, 2016; Rohner & Khaleque, 2002). Interestingly, of those who are affective copers, women (64.4%) account for a significantly greater proportion than men (36%; Ki, 2015). Although coping and resilience are not synonymous (Fletcher & Sarkar, 2013), they are connected, and coping subtheory suggests that some of those who have perceived rejection may still be highly resilient. Coping subtheory is the most undeveloped area of IPARTHeory research, and it is still unclear why some thrive yet others struggle (Rohner, 2016). Therefore, the present study aimed to extend coping subtheory by evaluating resilience.

**Present Study: Perceived Parental Rejection and Resilience.** It appears that the measures of perceived parental rejection and resilience could be inversely related. Indeed, research has begun to address resilience as it relates to perceived parental rejection through using mediational models (Sart et al., 2016) or evaluating related constructs (e.g., psychological hardness; Mekhaimer, 1996). However, more studies are warranted. For example, Sart et al. (2016) found resilience to mediate between rejection and depression only for women. Thus, research is needed to understand the gender difference that Sart et al. (2016) found and to explore the
relationship between resilience and rejection in other cultures, as their study was conducted in Turkey. Moreover, our previous research with a small sample of women showed some significantly negative, yet weak, associations between perceived maternal rejection and resilience (Camden, Brown, Bronner, Zhang, & Carter, 2016), leaving more room for exploration, particularly in the realm of gender. Therefore, in the present study, we had two aims: (a) we sought to investigate if perceived paternal and maternal rejection would predict lower resiliency for both men and women, and (b) we were curious if perceived paternal and maternal rejection would have different predictive strengths for men and women, separately.

**Method**

**Participants**

Participants \((N = 371)\) comprised 207 women (age range: 18–76, \(M = 29.01, \text{SD} = 13.42\)) and 101 men from the United States (age range: 18–78, \(M = 36.29, \text{SD} = 15.54\)), with a mean age of 36.29 (\(\text{SD} = 15.45\), age range: 18–78). Inclusion criteria for participation comprised English proficiency (i.e., *good–very strong* on our survey) and current residence in the United States. If they did not meet these criteria or had significant missing data, participants were excluded. We removed 46 participants from the original sample (of 371) for this reason (leaving \(N = 325\)). Seventeen participants reported being agender, transgender, or fluid, or did not report a gender. Because we did not have a large enough subsample to compare these gender groups to those identifying as men and women, they were removed from subsequent analyses, leaving \(N = 308\). Participants noted their racial background as White (58.4%), Asian (19.5%), Black (9.7%), and Hispanic or Latino (2.9%). Racial backgrounds that were not as represented included American Indian or Alaskan Native (less than 1%), Native Hawaiian or Pacific Islander (less than 1%), and multi- or biracial (e.g., American Indian or Alaskan Native and White: 5.2%). Moreover, three participants identified as “other,” and six additional participants did not provide a racial background. In terms of educational level, most participants had completed some college (31.2%), a bachelor’s degree (26.9%), master’s degree (16.2%), or had a high school diploma or had completed the GED (12%). Other participants had finished some postgraduate work (3.6%), an associate’s degree (3.2%), a doctorate degree (e.g., PhD: 2.6%), a professional degree (2.6%), or lower levels of education. Reporting their location, most participants denoted being from the South (59.1%), while the others were nearly derived from the Midwest, Northeast, and West.

**Measures**

**Perceived parental rejection.** To measure participants’ perceptions of parental warmth or parental coldness and rejection, we used the Parental Acceptance-Rejection Questionnaire (Short Form): Mother and Father (PARQ; Rohner & Khaleque, 2005). Rohner and Khaleque (2005) defined *acceptance-rejection* as “the warmth dimension of parenting . . . a bipolar dimension, with acceptance defining one end of the continuum and parental rejection defining the other” (p. 43). These two scales have 24 questions each, and four subscales (i.e., warmth/affection, hostility/aggression, indifference/neglect, and undifferentiated rejection), with the directions (Rohner & Khaleque, 2005) asking participants to think back to how their parent treated them when they were 7 to 11 years old (i.e., middle childhood). The Likert scale ranges from 1 (*almost always true*) to 4 (*almost never true*). After reverse-coding some items and summing all responses, higher total scores indicate more perceived rejection, and for the subscales, more coldness (i.e., warmth/affection subscale), hostility/aggression, indifference/neglect, and undifferentiated rejection, respectively. An example item is “My father frightened or threatened me when I did something wrong” (Rohner & Khaleque, 2005).

In Khaleque and Rohner’s (2002b) meta-analysis, they reported mean alphas ranging from .78 to .91 for the subscales and total PARQ scores across cultures. Faherty et al. (2016) also found the PARQ to have good reliability, with Cronbach’s alphas of .76 to .87 for the subscales, and .94 to .96 for the measure as a whole. In terms of convergent validity, the PARQ’s Warmth/Affection subscale (i.e., perceived coldness) has been shown to strongly correlate with another acceptance measure, and the Hostility/Aggression subscale to correlate with physical punishment (Rohner & Khaleque, 2005, p. 61). Moreover, Faherty et al. (2016) found that the subscales and measure as a whole showed good convergent validity with the Adult Personality Assessment Questionnaire (i.e., psychological maladjustment; Rohner & Khaleque, 2005). In our current sample, we also found strong reliability for the PARQ: Mother \(\alpha_{\text{men}} = .97\); \(\alpha_{\text{women}} = .96\) and for the PARQ: Father \(\alpha_{\text{men}} = .96\); \(\alpha_{\text{women}} = .96\).
Resilience. To evaluate psychological resiliency, we used the Brief Resilience Scale, which defines resilience as the ability to bounce back from stress (Smith et al., 2008). The Brief Resilience Scale is a 6-item measure with a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). After averaging the six items, higher scores indicated more resilience. An example item is “I tend to bounce back quickly after hard times” (Smith et al., 2008). The measure is unique in measuring only resilience, as compared to coping or resources like some other scales (Smith et al., 2008). In their psychometric study, Smith et al. (2008) found alphas ranging from .80 to .91. For convergent validity, they found it to positively correlate with other resilience measures, optimism, purpose in life, and positive affect, and negatively with anxiety and depression. For our sample, we found an alpha = .67 for men and .68 for women.

Procedure
After we gained approval from the Agnes Scott College institutional review board, 20 research assistants used flyers, e-mail, and social media to recruit participants via snowball sampling. To increase the representation of men in the sample, we also recruited 60 additional men (19.48% of N = 308) from Amazon Mechanical Turk (MTurk). These men did not significantly differ from the other men in age, nor their likelihood of being Hispanic or Latino, Black, Native American or Alaskan Native, or a race/ethnicity that they classified as “other.” However, MTurk men were more likely to be White or Asian. Additionally, there could be other critical differences between our MTurk sample and non-MTurk sample that we did not measure; for example, we did not evaluate response bias in participants. Nonetheless, MTurk participants were subject to the same inclusion criteria as non-MTurk participants, including living in the United States and denoting “good” to “very strong” English language proficiency. All participants responded to the survey online using Survey Monkey, and MTurk workers were compensated $0.50. Although participation in this research was voluntary, participants could choose to participate in a drawing for one of two $50 Amazon gift cards by providing their e-mail address in a separate linked survey that was not connected to their survey data.

Results
Table 1 includes the intercorrelations and descriptive statistics for all main study variables, in addition to those for the subscales of the PARQ: Mother and PARQ: Father (although not used as separate predictors in the present study). Table 2 shows the average resilience scores and percentages of perceived rejection between genders.

The first aim of the present study was to evaluate whether perceived parental rejection would predict lower resilience for men and women combined. After checking the intercorrelations (see Table 1), tolerance, variance inflation factor, and condition index, we determined that the data

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<td>.90</td>
<td>.72</td>
<td>.83</td>
<td>.78</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>11 Resilience</td>
<td>3.22</td>
<td>0.68</td>
<td>1</td>
<td>5</td>
<td>-.14</td>
<td>-.10</td>
<td>-.13</td>
<td>-.17</td>
<td>-.17</td>
<td>-.14</td>
<td>-.16</td>
<td>-.16</td>
<td>-.14</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Note. PARQ: Mother = Parental Acceptance-Rejection Questionnaire: Mother Total Score; Coldness = Warmth/Affection subscale; Hostility = Hostility/Aggression subscale; Neglect = Indifference/Neglect subscale; Undiff. Rej. = Undifferentiated Rejection subscale; PARQ: Father = Parental Acceptance-Rejection Questionnaire: Father Total Score; Min = minimum possible score; Max = maximum possible score. *p < .05. **p < .01.
met the requisite assumption of nonmulticollinearity for multiple linear regression and was therefore acceptable for further testing. We conducted a multiple linear regression to determine if perceived paternal rejection and perceived maternal rejection, together, would predict resilience (see Table 3). The regression equation was significant, \( F(2, 239) = 5.39, p = .005 \), with \( R^2 \) accounting for 4.3% of the variance. The model had a small effect size, \( f^2 = .04 \), according to Cohen’s (1988) parameters of \( f^2 \geq .02 \) being small, \( \geq .15 \) being medium, and \( \geq .35 \) being large (as cited in Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012). In terms of individual contribution to the model, perceived paternal rejection significantly predicted resilience, \( \beta = -.19, p = .007 \), while maternal rejection did not, \( \beta = -.03, p = .67 \). Additionally, we found that resilience positively correlated with age, \( r = .22, p < .001 \). Controlling for age in the multiple regression (see Table 4), the model remained significant, \( F(3, 236) = 9.83, p < .001 \), and \( R^2 \) accounted for more variance in resilience (11.1%). Again, only perceived paternal rejection made a significant contribution to the model, \( \beta = -.22, p = .002 \), and perceived maternal rejection was not a significant predictor, \( \beta = -.04, p = .57 \). The covariate, age, also remained significant, \( \beta = .27, p < .001 \). This model had a larger effect size than the original regression, \( f^2 = .12 \), though still small.

For our second aim, we investigated if perceived paternal and maternal rejection would differ in their predictive strength for men and women separately. To evaluate this, we conducted the same multiple regression again, but separately for men and women. In both cases, the data met the assumption of nonmulticollinearity based on intercorrelations, tolerance, variance inflation factor, and condition index. For men (see Table 5), the equation was significant, \( F(2, 76) = 7.28, p < .001 \), with \( R^2 \) accounting for 16.1% of variance. The model had a medium effect size, \( f^2 = .19 \). Perceived paternal rejection significantly predicted men’s resilience, \( \beta = -.29, p = .02 \), but perceived maternal rejection did not, \( \beta = -.154, p = .22 \). Controlling for age (see Table 6), the model remained significant, \( F(3, 75) = 7.13, p < .001 \), and accounted for more variance in resilience (22.2%), with a large effect size, \( f^2 = .29 \). Again, perceived paternal rejection contributed independently to the model, \( \beta = -.34, p = .007 \), and perceived maternal rejection did not predict resilience, \( \beta = -.11, p = .39 \). Age also remained a significant predictor in the final model, \( \beta = .25, p = .018 \). For women (see Table 7), the equation was not significant, \( F(2, 160) = 1.61, p = .20 \); neither perceived paternal rejection nor perceived maternal rejection predicted women’s resilience. Interestingly, controlling for age (see Table 8), the model became significant, \( F(3, 157) = 4.19, p = .007 \). However, only age made a significant independent contribution to the model, \( \beta = .24, p = .002 \), therefore conveying that

### TABLE 2

<table>
<thead>
<tr>
<th>Average Resilience Scores and Perceived Rejection Percentages Between Genders</th>
<th>Men</th>
<th>Women</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience (BRS)</td>
<td>3.31 (0.68)</td>
<td>3.17 (0.67)</td>
<td>3.22 (0.68)</td>
</tr>
<tr>
<td>Perceived Rejection (PARQ)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No perceived rejection</td>
<td></td>
<td>74 (77.9%)</td>
<td>142 (75.9%)</td>
</tr>
<tr>
<td>Perceived rejection from both parents</td>
<td>3 (3.2%)</td>
<td>10 (5.3%)</td>
<td>13 (4.6%)</td>
</tr>
<tr>
<td>Perceived rejection from father</td>
<td>15 (17.0%)</td>
<td>34 (19.1%)</td>
<td>49 (18.4%)</td>
</tr>
<tr>
<td>Perceived rejection from only father</td>
<td>12 (12.6%)</td>
<td>24 (12.8%)</td>
<td>36 (12.8%)</td>
</tr>
<tr>
<td>Perceived rejection from mother</td>
<td>9 (10.3%)</td>
<td>21 (11.8%)</td>
<td>30 (11.3%)</td>
</tr>
<tr>
<td>Perceived rejection from only mother</td>
<td>6 (6.3%)</td>
<td>11 (5.9%)</td>
<td>17 (6.0%)</td>
</tr>
</tbody>
</table>

Note. Brief Resilience Scale (BRS) scores range from 1 to 5. Parental Acceptance-Rejection Questionnaire (PARQ) scores range from 24 to 96. The cutoff score for perceived rejection is 60 (Rohner & Khaleque, 2005). All observed gender differences are nonsignificant. * valid \( n = 95 \); ** valid \( n = 78 \); *** valid \( n = 187 \); * valid \( n = 282 \), ** valid \( n = 266 \); valid \( n = 266 \).

### TABLE 3

| Multiple Regression Results for Perceived Parental Rejection Predicting Lower Resilience for Men and Women |
|---|---|---|---|---|
| Variable | \( b \) | \( SE \) | \( \beta \) | \( t \) | \( R^2 \) | \( \Delta R^2 \) |
| PARQ: Mother Total Score | -0.001 | 0.003 | -0.03 | -0.43 | .04* | .04* |
| PARQ: Father Total Score | -0.008* | 0.003* | -0.19* | -2.73* | |

Note. PARQ = Parental Acceptance-Rejection Questionnaire. * \( p < .05 \); ** \( p < .01 \).

### TABLE 4

| Multiple Hierarchical Regression Results of Perceived Rejection Predicting Resilience for Both Men and Women, Controlling for Age |
|---|---|---|---|---|---|
| Variable | \( b \) | \( SE \) | \( \beta \) | \( t \) | \( R^2 \) | \( \Delta R^2 \) |
| Step 1: | | | | | .057 | .057 |
| Age | 0.01 | 0.003 | 0.24 | 3.79*** |
| Step 2: | | | | | .111 | .054 |
| Age | 0.01 | 0.003 | 0.27 | 4.33*** |
| Perceived Pat. Reject. | -0.009 | 0.003 | -0.04 | -0.57*** |
| Perceived Mat. Reject. | -0.002 | 0.003 | -0.22 | -3.14 |

Note. Perceived Pat. Reject. = perceived paternal rejection; Perceived Mat. Reject. = perceived maternal rejection. * \( p < .05 \); ** \( p < .01 \); *** \( p < .001 \).
women’s resilience is not predicted by perceived parental rejection. Indeed, both perceived paternal rejection, $\beta = -.16$, $p = .06$, and perceived maternal rejection, $\beta = -.001$, $p = .99$, did not predict resilience. Additionally, $R^2$ accounted for only a small amount of variance, 7.4%, and the model had a small effect size, $f^2 = .08$.

### Discussion

In the present study, we sought to explore (a) how perceived paternal and maternal rejection together predicted resilience for men and women, and (b) how the variance paternal and maternal rejection accounted for might differ for men and women separately. For our first goal, we found that paternal and maternal rejection together significantly predicted resilience, such that, as rejection increases, the predicted resilience level decreases. However, the variance that rejection accounted for was relatively small. Moreover, within that multiple regression, when we evaluated the independent contribution of maternal rejection and paternal rejection to the variance in resilience, paternal rejection significantly predicted resilience, while maternal rejection was not significant; the same held true when we controlled for age. Age also remained a significant predictor in the final model.

Second, addressing our other aim to compare genders, we found that for men, maternal and paternal rejection together significantly predicted resilience and accounted for more variance than our original model with both men and women. Within that multiple regression, parsing apart the independent contribution of maternal and paternal rejection, only paternal rejection significantly predicted resilience. This independent contribution was also true once we controlled for age, and age remained a significant predictor in the final model. Interestingly, for women, this was not the case; we did not find women’s resilience to be predicted by perceived parental rejection. From these results, it appears that men’s resilience is particularly impacted by perceived parental rejection, specifically that of their father because we found consistently throughout the regressions that perceived paternal rejection, but not maternal rejection, predicted resilience. Additionally, it seems that age has a significant positive association with resilience, perhaps reflecting that, as people age, they become increasingly adept at bouncing back from adversity.

### Comparison to Prior Research

The present findings connect to previous literature in IPARTTherapy and in resilience, both by supporting...
and contradicting prior findings. Specifically, both we and Sart et al. (2016) found perceived rejection negatively related to resilience, but our study found the relationship only for men, whereas Sart et al. found it only for women. The difference between our studies could be because of cultural factors because Sart et al.’s study was conducted in Turkey and ours was conducted in the United States. However, we extend their findings by demonstrating that perceived parental rejection during the middle childhood years of 7–11 predicts less self-reported resilience in the United States as well. Also within the IPARTheory literature, our findings support those of Mekhaimar (1996) who found that perceived parental rejection negatively correlated with psychological hardiness. Although hardiness and resilience are separate constructs, our findings and those of Mekhaimar (1996) suggest that people’s ability to withstand stress is negatively associated with the rejection they perceive from their parents.

Finally, evaluating the gender difference that we found, our findings intersect with Ki’s (2015) study of affective copers. Ki (2015) found that significantly more women than men tend to be affective copers; this could explain why we did not find women’s resilience to be predicted by perceived parental rejection. If they are coping well, despite rejection, as IPARTheory posits about affective copers (Rohner & Khaleque, 2002), then it is plausible that their resilience levels may be unaffected by any parental rejection they perceived, as our regression with women suggests (see Table 7). Additionally, in our previous study with a completely female sample (Camden et al., 2016), we found a small negative correlation between resilience and perceived parental rejection, but only for specific items of the Brief Resilience Scale and subscales of the PARQ. The present study’s gender difference may help to explain why, in our previous study, there was minimal correlation for women. Finally, our finding that perceived paternal rejection, but not maternal rejection, significantly predicted men’s resilience aligns with Meesters et al. (1995). Although they studied hostility and we studied resilience, they likewise found that perceived rejection by the father was the strongest predictor.

Evaluating the literature on parenting and resilience, our findings also strengthen and support many previous studies, which found resilience to be negatively related to the perception of poor parenting (Li, 2008; Petros et al., 2013). In particular, it appears that insecure attachment is negatively related to coping and resilience (Karreman & Vingerhoets, 2012; Kinniburgh et al., 2005; Li, 2008). Moreover, our findings support those of Petros et al. (2013), who found that early life stress was negatively related to resilience. Similarly, Kritzas and Grobler (2005) and Wyman et al. (1999) found that authoritative parenting was positively correlated with resilience. In support of this research, we found that perceived parental rejection was negatively related to resilience.

Implications and Applications
The current study and its results can be applied both to theory and practice. Specifically, in terms of IPARTheory, it appears that not only is perceived parental rejection related to coping (Rohner & Khaleque, 2002), but also resilience levels, specifically for men perceiving rejection from their father. This supports and extends the theory. Additionally, these results imply that parental warmth may be important to developing resiliency, particularly for men receiving paternal warmth. This implication is corroborated in part by Kausar and Kazmi’s (2011) finding that sons were significantly more apt than daughters to perceive their fathers as rejecting, and Meesters et al.’s (1995) finding that perceived paternal rejecting was the strongest predictor of hostility.

A second theoretical implication of the current study comes from our results that women’s resilience did not appear to be predicted by perceived parental rejection. Albeit interesting, this may imply that women and men experience parental rejection differently, or that their resilience levels are predicted in separate ways. Applying IPARTheory’s coping subtheory to this finding, this could suggest that women, more than men, tend to be affective copers (i.e., those who, despite rejection, function seemingly well), as found by Ki (2015).

Finally, in terms of practical applications, our results can be applied to parenting and psychotherapy. Because we found that, particularly for men, perceived rejection from a father predicts lower resilience, it may be especially important for fathers to provide warmth to their male children. Wyman et al. (1999) provided insight into how best to parent in order to foster resilience in one’s child. They found that, above other factors such as the parent’s developmental history and psychosocial resources, emotionally responsive parenting mediated, and was predictive of, resilience in the child. This is supported by Kinniburgh et al.’s (2005) proposition for a childhood trauma treatment model focused on improving attachment
to increase resilience. Additionally, in terms of application to psychotherapy, resilience-increasing interventions, such as cognitive behavioral theory, might be considered for men having experienced paternal rejection because it has been shown to increase resilience (Chen et al., 2014).

**Strengths and Limitations**

The present study has multiple strengths. Primarily, our findings contribute to the limited literature on resilience as it relates to IPARTheory. Additionally, we had a large sample of 308 participants. This number strengthens our confidence in the results of perceived parental rejection’s ability to predict resilience levels. The present study is also strong because of its theoretical underpinning in IPARTheory; numerous research studies using this theory have shown the adverse effects of perceived parental rejection (Rohner & Rising, 2006).

In addition to the strengths of this study, there are areas that could be improved upon. One weakness of the present study is the Cronbach’s alphas we found for the Brief Resilience Scale (Smith et al., 2008) for our sample (αmen = .67; αwomen = .68), which are slightly below the reliable level of α = .70. However, strong reliability for this measure was previously found in Smith et al.’s (2008) prior research (α = .80–.91) and in our previous research (α = .86; Camden et al., 2016). A second weakness of this study is the use of snowball sampling to gather part of the sample (more women than men were recruited through this method). Because many participants knew the research assistants, there could be similarities among the participants that would not have been found in a completely random sample. Relatedly, our differing sample sizes in men (n = 108) and women (n = 207) and two sampling procedures should be remedied in future research; it is possible that the differing α and sampling procedures influenced the findings. Finally, another weakness of the current study is the retrospective and subjective nature of the measures we used. Although perception is held as an important construct in IPARTheory (“Ronald P. Rohner,” 2004), the same may not hold true for resilience measurement. Because resilience is a relatively young area of research, researchers are still learning how to best measure the construct. However, the Brief Resilience Scale (Smith et al., 2008) is a strong measure of resilience because of its focus on the core aspects of resilience: adversity and bouncing back from it.

**Directions for Future Research**

The findings of the present study can be extended in future research. One interesting finding was that women’s resilience appeared to be unrelated to perceived parental rejection. This implies that the female participants could be affective or instrumental copers, according to IPARTheory (Rohner & Khaleque, 2002). Future research could disentangle participants’ resilience levels from affective and instrumental coping. To do this, researchers would first need to establish a measure of coping in line with IPARTheory. They could then measure coping, resilience, and perceived rejection, and conduct a hierarchical multiple regression with coping type as a covariate in order to control for its possible effect on resilience. Moreover, IPARTheory posits that, although 80% of people display the personality dispositions associated with perceived rejection, the other 20% manifest as healthy or functional despite the rejection (Rohner & Khaleque, 2002). Thus, researchers could also separate participants into (a) affective copers, (b) instrumental copers, and (c) reaction-affected participants and conduct a one-way Analysis of Variance (ANOVA) to understand how resilience levels might differ between these groups.

Another direction of future research is to work to understand why we found that only men’s resilience was predicted by perceived rejection, and why Sart et al. (2016) found that, only for women, resilience mediated the relationship between perceived rejection and depression. Ki (2015) also found that women tended to be affective copers more often than men. These gender differences provide an avenue for further research. Ki (2015) mentioned that the difference in coping could be because women, more than men, tend to seek emotional and social support, which are correlates of resilience. Future work should continue to explore gender differences in coping and resilience as they relate to perceived parental rejection, so that it can be understood whether these differences are supported. Also, correlates of resilience, such as social support, spirituality, and positive affect (Richardson, 2002) should be compared between genders within these studies to disentangle the differences.

A final idea for future research is exploring potential biomarkers of resilience (e.g., DHEAS, cortisol; Petros et al., 2013) in relationship to perceived parental rejection. There have been differential findings in whether these salivary steroids predict resilience (Mizuno et al., 2016; Petros et
al., 2013). However, it would be informative to understand whether those who reported perceived rejection from their parent(s) differ biologically from those who tended to perceive acceptance. Using salivary samples, levels of biomarkers could be analyzed, and factorial ANOVAs could be conducted to analyze group differences in the multiple biomarkers, and regression analyses could be used to understand the predictive ability. This would provide insight into the impact of perceived rejection on biology.

**Conclusion**

This study evaluated the predictive ability of perceived parental rejection on resilience levels in a large sample of adults. Overall, our results convey that, for men, perceived parental rejection significantly predicts lower resilience. These results strengthen our confidence in the theory of the negative effect of perceived parental rejection (Rohner & Khaleque, 2002). Moreover, although coping and resilience are not identical constructs (Fletcher & Sarkar, 2013), these results extend the reach of coping subtheory (Rohner & Rising, 2006) because they show that men’s and women’s resilience is differentially related to perceived parental rejection. This may convey that women, more than men, tend to be effective copers. Ultimately, the findings of the present study suggest that perceived parental rejection during middle childhood may be a critical component of resilience development. Therefore, parental acceptance-rejection represents a fruitful and imperative area of inquiry for future resilience research and intervention.

**References**


Resilience and Perceived Parental Rejection


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