

LINKS AMONG LIFE EVENTS, POSITIVE PARENTING BEHAVIOR, AND
COMPASSION

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by

Christina Maria Marquez

San Francisco, California

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CERTIFICATION OF APPROVAL

I certify that I have read Links Among Life Events, Positive Parenting Behavior, and Compassion by Christina Maria Marquez, and that in my opinion this work meets the criteria for approving a thesis submitted in partial fulfillment of the requirement for the degree Master of Arts in Psychology: Developmental Psychology at San Francisco State University.



Jeff Cookston, Ph.D.
Professor



Patricia Miller, Ph.D.
Professor

LINKS AMONG LIFE EVENTS, POSITIVE PARENTING BEHAVIOR, AND
COMPASSION

Christina Maria Marquez
San Francisco, California
2017

While there is a positive relationship between self-compassion and compassion toward others (Crocker & Canevello, 2008; Gilbert, McEwan, Matos, & Rivis, 2011), the extent of the relationship between the two variables has not often been investigated. Researchers have identified stressful life events and parenting behaviors as possible predictors of compassionate outcomes throughout development (Kelly & Dupasquier, 2016; Satici, Uysal, & Akin, 2015). A total of 266 (83.70% female) undergraduates ($M_{age} = 23.62$, $SD_{age} = 5.167$) participated in an online study. Participants were asked to complete self-report surveys specific to measuring stressful life events, recent experiences with positive parenting behaviors, and levels of compassion. It was predicted that positive parenting behaviors would mediate the relationship between stressful life events and compassionate outcomes. Replicating previous work and in support of the hypotheses, there was a positive relationship between compassion toward others and self-compassion, and compassion toward others and stressful life events were also positively correlated. Additionally, self-compassion was inversely correlated with stressful life events reported at 3 months and 12 months while the relationship between life events experienced at least once showed a positive association. The proposed mediation was partially supported such that the relationship between stressful life events at 12 months and compassionate outcomes was mediated by positive parenting behaviors. Specifically, more reports of positive parenting behavior from students who experienced higher rates of recent stressful life events were indicative of higher levels of compassion reported within the sample. Findings from this study provide implications for developmental interventions focused on expanding the capacity for compassion across the lifespan.

I certify that the Abstract is a correct representation of the content of this thesis.



Chair, Thesis Committee

8/11/17

Date

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Compassion is related to positive developmental outcomes such as well-being. Recent literature suggests that the benefits of experiencing feelings of self-compassion can increase psychological resilience which can lead to positive mental health outcomes (Neff, Hsieh, & Dejitterat, 2005; Neff & McGehee, 2010). Specifically, self-compassion has been shown to increase emotional resilience in adolescents and young adults during times of transition (Bluth, Campo, Futch, & Gaylord, 2016; Gunnell, Mosewich, McEwen, Eklund, & Crocker, 2017). Researchers suggest that practicing self-compassion may improve resilience through serving as a coping mechanism in times of stress (Bluth, Roberson, Gaylord, Faurot, Grewen, Arzon, & Girdler, 2016). Research linking compassion toward others and well-being is less clear in the existing literature. This may be a result of a lack of agreement among researchers regarding acknowledging compassion for others as a distinct concept separate from empathy and sympathy. Recent research suggests that the links between experiencing compassion for others and well-being may be less obvious as the benefits of having compassion toward others may be a result of establishing positive interpersonal relationships with others. Due to experiencing meaningful social connections, feeling compassion for others may contribute to an individual's personal resources, where meaningful connections serve as an effective coping mechanism (Crocker & Canevello, 2008). Specifically, expressing compassion for others may have the potential to increase levels of happiness and life satisfaction (Pommier, 2011). The relationship between self-compassion and compassion toward others is also unclear. Acknowledging the benefits of experiencing self-compassion and compassion toward others, it is possible that demonstrating a capacity for compassion

overall may influence the likelihood of experiencing optimal well-being when both self-compassion and compassion toward others are increased.

Some research has shown a positive relationship between compassion toward others and self-compassion (Crocker & Canevello, 2008; Gilbert, McEwan, Matos, & Ravis, 2011). Compassion, as a construct, has been linked to well-being such that both compassion toward others (Gilbert et al., 2011) and self-compassion (Gilbert et al., 2011; Maheux & Price, 2016; Neff, 2016) have been negatively associated with depression, stress, and anxiety. Several studies have identified a relationship between self-compassion and health outcomes, where individuals who practice more self-compassion also report more positive mental health outcomes (Trompetter, Kleine, & Bohlmeijer, 2016) such as greater feelings of happiness, life satisfaction and purpose in life (Neff, 2016; Homan, 2016). Research in compassion is often met with skepticism regarding clearly differentiating compassion from other prosocial concepts such as empathy and sympathy. Several developmental theories are present within the literature to address these concerns. Most commonly, the difference between these core concepts is discussed in a developmental approach to understanding social cognitive development of the individual.

Compassion as a construct is distinct from other prosocial concepts such as empathy and sympathy (Strauss, Lever Taylor, Gu, Kuyken, Baer, Jones, & Cavanagh, 2016). Researchers suggest that sympathy and empathy are important developmental milestones that have the potential to influence the development of compassion (Hoffman,

2001). By definition, the following differences can be inferred: (a) Empathy is defined as an emotional experience triggered by a response to distress witnessed in another. Feelings of empathy require an individual to have developed higher order cognitive capabilities such as perspective-taking (Hoffman, 2001); (b) Sympathy can be considered a form of mature empathy and can be defined as showing concern for another person's suffering. To feel sympathetic however, an individual does not need to rely on the ability to take on the perspective of another. However, higher order cognitive processes that are required for an individual to feel sympathetic include the developmental process of recognizing the self as separate from the other. Feeling sympathy then, demonstrates the person's ability to acknowledge the suffering of another person; (c) Compassion can be considered the most advanced form of developing a capacity for empathy and sympathy, as the feeling of compassion is accompanied by being motivated to relieve the suffering of another (or in the case of self-compassion, feeling moved to relieve one's own experience of suffering). Compassion is different from other prosocial concepts in that through acknowledging that a person is experiencing suffering expressing compassion in moments of distress requires an additional motivation and desire to help relieve that suffering (Strauss et al., 2016).

Developmental Theories of Compassion

The focus of developmental psychology often highlights the interaction of nature and nurture that ultimately determines an individual's developmental trajectory across the lifespan. This unique perspective emphasizes the role of biology and environmental

influences that may help to determine specific developmental outcomes. In a summary reviewing the developmental perspectives related to compassion, training in compassionate mindfulness practices (e.g., meditation) was shown to support the development of compassion in adults (Gilbert, 2015; Roeser & Eccles, 2015). Additionally, researchers have also begun to investigate the social- cognitive factors that facilitate the process of building a broader capacity of compassion. Distinct from the concept of empathy, compassion demonstrates the desire to relieve others during a period of distress. The idea of self-compassion is similar, but rather than experiencing sympathy or concern for others, self-compassion highlights the importance of re-directing feelings of sympathetic concern inward. This practice is referred to as being kind to yourself (Neff, 2003; Neff & Davidson, 2016). While much research has focused on understanding the development of feelings of concern for others, there is sparse research that currently exists investigating the developmental influences of self-compassion. What we do know about the study of compassion as a construct is that often, compassionate outcomes are related to positive developmental outcomes across the lifespan (Bluth, Campo, Futch, & Gaylord, 2017; Roeser & Eccles, 2015; Trompetter, Kleine, & Bohlmeijer, 2017; Wei, Liao, Ku & Shaffer, 2011). For this reason, we seek to better understand the relationship between development and compassionate outcomes through identifying possible predictors that impact developmental trajectories across the lifespan.

Recently, special interest in understanding the development of compassion across the lifespan has emerged amongst experts in the field of developmental psychology (Roeser & Eccles, 2015; Greenberg & Turksma, 2015). Hoffman's theory of prosocial

development is consistent with the definitions described above. He suggested that empathy is an adaptive behavior which may be present as early as infancy. According to Hoffman, infants are born with an innate response to experiencing empathic distress in others (e.g., babies cry in response to hearing another baby cry). The term empathic distress refers to a conditioned response triggered by witnessing someone in distress while also experiencing some type of interpersonal distress as a result. Early in development the desire to relieve the distress witnessed in others may be prompted by egocentric needs of the child and their desire to relieve their own suffering initiated by the vicarious experience from another. As children move through the developmental stages and develop more advanced social cognitive abilities, reactions to experiencing empathic distress become less egocentric and more focused on the individual who is experiencing the suffering first hand (Hoffman, 2001). Empathy arousal requires higher order cognition. Mature observers who can engage in higher order thinking are aware of their empathic feelings, they feel distressed but know that the distress is a response to the others misfortune and their perception of how the other feels. This advancement in social cognitive abilities results in an individual being able to experience sympathy. Hoffman referred to this stage of responding to distress as experiencing “sympathetic distress”, a more reciprocal concern for others. Empathic distress becomes sympathetic distress such that children want to go help because they feel sorry for the victim not just to relieve their own distress. Consistent with other theories of the development of empathy, sympathy and compassion, these prosocial constructs are feelings and behaviors that are learned continuously throughout the lifespan (Hoffman, 2001).

In a review of the literature, mindfulness and compassion were explained from a developmental perspective. Additionally, identifying a possible innate component of developing compassion was also addressed in a special section focused on compassion in development (Roesser & Eccles, 2015). A theoretic approach to understanding the mechanisms that contribute to compassionate outcomes, research has shown that compassion can be fostered through intentional training and education. Acknowledging the various themes and definitions that exist within the current scientific literature regarding compassion, the simplest explanation is that compassion represents a capacity to feel, and desire to relieve suffering--from others, as well as directing this acknowledgment of and desire to relieve interpersonal distress. In support of this developmental theory, the complexity of compassion as a construct can be captured through considering compassionate feelings as an intrinsic process that requires socialization and education to achieve optimal compassionate outcomes. Compassion can develop through practice, and over time one can exhibit a level of “basic compassion” which is considered a narrower focus on the concern for oneself and close others. This idea extends into a proposed “Zone of Potential Compassion”.

This hypothesized “zone” refers to the possibility of a human being attaining a wider scope of perception, empathic concern, intention, and action aimed at the alleviation of the suffering of “all beings” --including those beyond appraisals of “me and mine”. Such extended or “great compassion” is thought to be marked by a clear perception that all beings suffer... and an intention to act for the welfare of

all beings who, like oneself, wish not to suffer and wish to be happy (Roesser & Eccles, 2015, p. 3).

The concept of achieving an optimal state of compassion supports developmental theory, suggesting the evolutionary (biological) perspective on the benefits of maintaining a basic capacity for compassion. Acknowledging a potential biological predisposition to compassion via evolution, the theory of a Zone of Potential Compassion supports the idea that individuals who are raised in environments that promote optimal developmental outcomes, can achieve a capacity for a greater compassion that extends beyond kinship and closeness. Potential to experience great compassion thus allows for the desire to relieve distress in others to expand to a more universal perspective. This universal desire to relieve distress in others is often referred to as common humanity within the present literature on compassion (Neff, 2003; Neff & Pommier, 2013).

Parent-Child Attachment Experiences

Further supporting the role of developmental experiences in fostering compassion, parent-child attachment experiences have also shown to predict compassionate outcomes. Researchers have found a relationship between children's attachment security and levels of children's empathy (Panfile & Laible, 2012). Specifically, empathy was shown to predict parent-child attachment relationships, such that greater empathy was associated with more secure relationships (Black & Leszczynski, 2013). Conversely, research investigating the relationship between attachment security and empathic concern also demonstrates the predictive role of attachment on empathic concern during early life.

That is, toddlers with more secure attachments at 42 months of age demonstrated higher rates of empathic concern at 48 months (Murphy & Laible, 2013). Additionally, parental empathy predicted children's attachment security, such that higher empathy in parents was positively related to secure parent-child attachment relationships (Stern, Borelli, & Smiley, 2015). In another study, students who were primed with attachment security showed higher levels of compassion. Additionally, attachment avoidance was associated with lower compassion ratings (Mikulincer, Shaver, Gillath & Nitzberg, 2005). Collectively, these studies show how the parent-child attachment relationship influences the development of compassion starting in the early stages of life.

Attachment related experiences are also relevant to self-compassion outcomes among adolescents and young adults (Moreira, Gouveia, Carona, Silva & Canavarro, 2015; Wei, Liao, Ku, & Shaffer, 2011). Self-compassion has also been associated with parent-child attachment relationships among children aged 8 to 18 years old. In a study investigating the effects of mothers' self-compassion on children reported quality of life, results showed that mothers who reported experiencing more attachment related stress also showed less self-compassion. Additionally, these mothers experienced higher rates of parental stress and in turn produced lower reports of quality of life by their adolescent and young adult children (Moreira, Gouveia, Carona, Silva & Canavarro, 2015). Additionally, in a study investigating the association between attachment experiences and self-compassion within a sample of young adults, retrospective reports of the parent-child attachment relationship showed similar findings (Wei, Liao, Ku, & Shaffer, 2011). Results showed that lower reports of attachment anxiety and attachment avoidance were

associated with higher levels of self-compassion within this college sample. Furthermore, recollections of parental warmth were positively associated with higher reports of self-compassion as reported among young adults (Pepping, Davis, O'Donovan, & Pal, 2015). Parent-child attachment relationships are associated with compassionate outcomes.

Parent-child attachment experiences predict compassionate outcomes.

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The Present Study

Recognizing the potential biological and environmental influences that can affect the development of compassion, this study seeks to identify possible predictors of compassion within a college sample. Specifically, two constructs have emerged within

the existing literature on compassion as having potential to influence an individual's capacity to experience feelings of compassion. Both stressful life events and parenting behaviors can impact the development of compassion across the lifespan. First, day to day life experiences may impact the relationship between stressful life events and compassionate outcomes in emerging adults (Lucas-Thompson, 2016). The relationship between stressful life events and parent-child relationships on well-being suggests that positive parent-child relationships may serve as a buffer to promote positive outcomes for their children (Bannink, Broeren, van de Looij-Jansen, & Raat, 2013).

The observed relationship between compassion toward others and self-compassion indicates that the two variables may influence the development of one another. For example, self-compassion has shown to be positively related to compassion toward others such that individuals who experienced more genuine feelings of compassion (focus on supporting others even when extending support goes beyond receiving personal incentive because of being compassionate toward others) were also more self-compassionate (Crocker & Canevello, 2008). Furthermore, self-compassion is associated with compassionate love for others (Gilbert et al., 2011). Compassion toward others and self-compassion are positively associated and thus may influence the development of one or the other creating an overall compassionate outcome.

Stressful Life Events

Stressful life events are related to the development of compassion toward others in adults (Lim & DeSteno, 2016). Reports of past traumatic experiences such as being

exposed to violence, bereavement, and social-environmental stress have been found to be associated with tendencies to experience dispositional compassion daily. Additionally, researchers also found that increased severity of stressful experiences reported by participants was associated with higher levels of empathic concern, which in turn promoted higher levels of dispositional compassion. Most notably, the severity of adversity experienced by participants was the best predictor of developing compassion toward others' stressful life events (Lim & DeSteno, 2016).

On the other hand, self-compassion and adversity appear to be inversely related. In one study with adolescents, more self-compassion was associated with fewer experiences of emotional abuse, emotional neglect, and physical abuse (Tanaka, Wekerle, Schmuck, & Paglia-Boak, 2011). Furthermore, emotional abuse emerged as a predictor of levels of self-compassion, such that lower reports of emotional abuse were predictive of higher rates of self-compassion. Additionally, recent research identified the relationship between reflecting on early life experiences and self-compassion (Satici, Usyal, Akin, & Treviño, 2015). Positive aspects of self-compassion such as self-kindness, common humanity, and mindfulness were found to be negatively associated with stressful adult recollections of childhood familial experiences. These findings suggest that individuals who reported less stressful memories were more likely to develop positive aspects of self-compassion. Additionally, the more negative early life experiences recalled by participants were positively related to self-judgment, isolation, and overidentification supporting the idea that the more stressful experiences encountered during early years of development promote maladaptive factors of self-compassion. These findings suggest

that early life experiences may influence the development of self-compassion (Satici et al., 2015). Exposure to stressful life experiences during childhood can influence the development of self-compassion.

Positive Parenting Behaviors

Research has shown that positive parenting experiences in early childhood predict levels of empathic concern in adult children (Koestner, Franz, & Weinberger, 1990). Results showed that specific levels of parental involvement identified at age 5 were indicative of empathic concern later in life at age 31. Specifically, higher levels of paternal involvement with child care and higher maternal tolerance for dependent behavior predicted greater levels of empathic concern in adult children. Additionally, parenting styles influence reports of empathic concern in middle and late childhood (de Minzi, 2013; Mesurado & Richaud, 2016). Positive parenting behavior promotes compassionate outcomes in adult children. A longitudinal study investigating the influence of parents on developing empathic concern in children found that individuals who had more positive parenting experiences grew up to have more concern for others (de Minzi, 2013). Empathic concern predicts compassion toward others and thus demonstrates the potential to experience more compassion daily (Lim & DeSteno, 2016). Recent research has also identified the role of parents in shaping self-compassionate individuals (e.g., Gouveia, Carona, Canavarro, & Moreira, 2016). Retrospective studies that prompt young adults to report on past experiences with their parents yield similar results. For example, adult children who can recall more positive experiences (such as

parental warmth in childhood) tend to report higher rates of self-compassion (Kelly & Dupasquier, 2016; Pepping et al., 2015). Positive parenting behaviors influence the development of compassionate children to self and others.

Research shows that positive parenting behaviors can influence parenting styles, which can determine a child's developmental trajectory (Gouveia et al., 2016). Findings showed that higher levels of self-compassion were associated with higher levels of positive parenting behaviors (e.g., mindful parenting). Additionally, more mindful parenting styles were also associated with lower levels of parenting stress and higher level authoritative parenting styles. Moreover, recalled experiences of parental warmth is also associated with self-compassion in young adults (Kelly & Dupasquier, 2016; Pepping et al., 2015). Positive parenting behaviors influence the development of self-compassion.

This study will investigate the associations between positive parenting behaviors and compassionate outcomes as well as the impact of stressful life events on these outcomes. Additionally, the relationship between compassion toward others and self-compassion will be analyzed to demonstrate the existing relationship between the two variables. Moreover, I will look at the association between the positive parenting behaviors and stressful life events to determine which factor holds the most weight on determining developmental outcomes in adulthood. Finally, I will consider the impact of all the variables on predicting compassionate outcomes to determine which factors tend to hold more influence over the other.

Hypotheses

H1: Compassion toward others will be positively related to self-compassion, such that more reports of feeling compassionate toward others are associated with more feelings of self-compassion among emerging adults.

H2: Stressful life events and positive parenting behaviors will be inversely correlated. Specifically, lower rates of stressful life events will be associated with reports of more positive parenting behaviors experienced by emerging adults.

H3: Stressful life events will be associated with more feelings of compassion and self-compassion reported by emerging adults.

H3a: More stressful life events reported will be associated with more compassion toward others.

H3b: More stressful life events will be associated with lower levels of self-compassion.

H4: Positive parenting behaviors will be associated with compassionate outcomes. Specifically, emerging adults who report more recollections of positive parenting behaviors will be associated with more reports of compassionate feelings.

H5: The relationship between stressful life events and compassionate outcomes will be mediated by recollections of positive parenting behaviors reported by emerging adults. It

is expected that more reports of positive parenting behaviors will explain the relationship between stressful life events and feelings of compassion.

Method

Participants

Participants were recruited from a university located within a coastal city on the western side of the United States. A total of 266 (83.70% female) undergraduates ($M_{age} = 23.62$, $SD_{age} = 5.167$) participated in the study. The sample, largely composed of psychology students, were offered extra credit in their courses as compensation for completing an online survey. The participants in the study represented a diverse sample where, 24.80% identified as Asian/Asian American, 2.50% identified as Black/African American, 33.70% as Hispanic/Latino, 34.20% White, and 5.00% Mixed or Other. Additionally, students reported mothers' level of education as an indicator of family socioeconomic status; 4.10% students reported their mother as completing less than a high school diploma, 41.1% high school diploma or GED, 6.60% Associate's Degree or Trade School, 29.90% Some college, 7.60% Bachelor's Degree, and 10.70% graduate degree.

Measures

compassion toward others. The Compassion Scale was used to measure compassion toward others (CS; Pommier, 2011). Response options were presented using a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*) prompted by

the statement “How I Typically Act toward Others.” The scale is comprised of 24 items total. Sample items consisted of “Despite my differences with others, I know that everyone feels pain just like me” and “When others feel sadness, I try to comfort them.” Validity of the Compassion Scale was determined in a previous study (Pommier, 2011). Additionally, the scale demonstrated strong reliability within the current sample ($\alpha = .90$).

self-compassion. The Self Compassion scale was used to measure levels of compassion directed inward (SCS; Neff, 2003). The measure consists of 26 items in total. Sample items included, “I’m kind to myself when I’m experiencing suffering,” and “I’m disapproving and judgmental about my own flaws and inadequacies.” Response options ranged from 1 (*almost never*) to 5 (*almost always*). In previous studies, the Self-Compassion Scale was determined to be a valid tool for measuring self-compassion (Neff & Pommier, 2013; Neff, 2016). This scale was reliable in the current study ($\alpha = .93$).

stressful life events. Life experiences were measured using the Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967). The SRRS is a common measure used to identify a variety of positive, negative and neutral stressful life events that may be perceived as stressful and require some form of personal readjustment (Dekker & Webb, 1974). Participants were instructed to identify stressful life events they had experienced at least once, more than once, within the past 12 months and within the past 3 months. For each prompt responses were coded dichotomously where 0 (*never experienced this event*) and 1 (*yes - experienced this life event*). The social readjustment rating scale has been shown to capture elements of stressful events within a college aged

sample (Bieliauskas & Strugar, 1967). The SRRS is a frequently used tool and is reliable and valid (Gerst, Grant, Yager, & Sweetwood, 1978; McGrath & Burkhart, 1983).

To compute a total stressful life events score totals were calculated through taking the sum of all events identified. For example, scores identified as 1 (*yes - experienced this life event*) were summed to create a total score for stressful life events experienced at least once. Higher scores were indicative of individuals who reported having experienced stressful life events that were listed in the SRRS (see Table 1). The same process was repeated for measuring stressful life events experienced more than once, within the past 12 months and within the past 3 months. All total life event scores were based on the same rating rationale, where higher scores represented more stressful life events experienced within the sample.

positive parenting behavior. Parenting behavior was measured using the Child Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965). Participants were instructed to reflect on their experiences with their parents within the past 3 months. The questionnaire consisted of 28 items specific to identifying mother behavior. The same 28 items were repeated for child reports of father behavior. Response options were 1 (*False*), 2 (*Somewhat True*) and 3 (*True*). Items were coded based on specific parenting behaviors such as acceptance, inconsistent discipline, and rejection (Teleki, Powell, & Dodder, 1982). Items that reflected negative parenting behaviors such as inconsistent discipline and rejection, were recoded to reflect positive parenting behaviors. For example, inconsistent discipline items (e.g., “During the past 3 months, your mother sometimes

allowed you to do things that she said were wrong”) were reverse coded to reflect consistent behavior. Additionally, rejection items (e.g., “During the past 3 months, your mother almost always complained about what you did”) were reverse coded as non-rejecting behaviors. Validity for the Child Report of Parental Behavior Inventory (cite). Reliability coefficients for both mother and father scales were $\alpha = .93$ and $\alpha = .90$ respectively.

Procedure

Upon receiving IRB approval for this study, the research team offered opportunities to participate through completing self-report surveys using an online platform. This questionnaire included the self-report measures listed above. First, participants were recruited through posting the study on the university’s designated online platform. Data were collected over the course of one academic year.

After the initial data collection, a preliminary analysis was conducted. Total scores were derived for all measures through calculating a grand mean across all items within a scale. Specifically, overall compassion scores were calculated through first constructing the subscales for each compassion measure. Then a grand mean was calculated through taking the average score of all compassion measure subscales. Additionally, the same process was done to create a total parent score, first subscales were computed for the child reported mother behavior scale as well as for father behavior. Next, a grand mean was calculated through taking the average score of all mother and father behavior subscales. For total parenting and compassion scores, higher

scores were indicative of more positive parenting behaviors and higher reports of compassion. A series of bivariate correlations were conducted to determine the significance and directionality of the relationship between stressful life events, parenting behaviors and compassionate outcomes. Additionally, a multiple regression was computed to determine if the two predicting variables (stressful life events and parenting behaviors), interacted to influence compassionate outcomes.

Results

A preliminary analysis found that 89.50% of the sample reported having experienced stressful life events at least once in their lifetime. Participants were also asked to identify events that were experienced more than once in their lifetime (88.30%). Additionally, participants indicated if these stressful life events occurred within the past 12 months (78.70%) and 3 months (67.70%). A complete list of stressful life events frequencies and response percentages per item appears in Table 1.

Compassion toward Others and Self-Compassion

Consistent with the first hypothesis, results showed a significant correlation between self-compassion ($M = 3.11$, $SD = .663$) and compassion toward others ($M = 4.12$, $SD = .513$), where $r = .166$, $p = .008$. Specifically, the association between self-compassion and compassion toward others was positive, indicating that students who reported experiencing more feelings of self-compassion also reported more experiences of feeling compassion toward others. The strength of the correlation between self-compassion and compassion toward others was small to medium.

Table 1

Sample Frequencies of Stressful life events Included in the Social Readjustment Rating Scale

	Once		More		12 Months		3 Months	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1 Death of a spouse	2	0.84	1	0.42	2	0.84	1	0.42
2 Divorce	21	8.79	2	0.84	1	0.42	2	0.84
3 Marital separation	19	7.95	4	1.67	3	1.26	1	0.42
4 Jail term	7	2.93	5	2.09	1	0.42	1	0.42
5 Death of close family member	76	31.80	76	31.80	21	8.79	13	5.44
6 Personal injury or illness	71	29.71	66	27.62	24	10.04	21	8.79
7 Marriage	14	5.86	2	0.84	1	0.42	1	0.42
8 Fired at work	32	13.39	8	3.35	2	0.84	1	0.42
9 Marital reconciliation	7	2.93	2	0.84	1	0.42	0	0.00
10 Retirement	3	1.26	1	0.42	1	0.42	0	0.00
11 Change in health of family member	53	22.18	77	32.22	30	12.55	38	15.90
12 Pregnancy	13	5.44	15	6.28	8	3.35	2	0.84
13 Sex difficulties (difficulty in sexual performance)	42	17.57	23	9.62	19	7.95	19	7.95
14 Gain of new family member	55	23.01	62	25.94	24	10.04	15	6.28
15 Business readjustment	26	10.88	8	3.35	10	4.18	5	2.09
16 Change in financial state	64	26.78	54	22.59	32	13.39	33	13.81
17 Death of close friend	44	18.41	19	7.95	5	2.09	6	2.51
18 Change to different line of work	60	25.10	54	22.59	27	11.30	10	4.18
19 Change in number of arguments with spouse	29	12.13	29	12.13	18	7.53	16	6.69
20 Mortgage more than \$51,000	4	1.67	4	1.67	1	0.42	1	0.42

21 Foreclosure of mortgage or loan	8	3.35	4	1.67	0	0.00	0	0.00
22 Change in responsibilities at work	59	24.69	59	24.69	36	15.06	24	10.04
23 Son or daughter leaving home	2	0.84	0	0.00	0	0.00	1	0.42
24 Trouble with in-laws	26	10.88	10	4.18	5	2.09	5	2.09
25 Outstanding personal achievement	66	27.62	93	38.91	37	15.48	31	12.97
26 Spouse begin or stop work	14	5.86	13	5.44	6	2.51	7	2.93
27 Begin or end school	62	25.94	119	49.79	51	21.34	30	12.55
28 Change in living conditions	67	28.03	95	39.75	61	25.52	24	10.04
29 Revision of personal habits	60	25.10	90	37.66	44	18.41	44	18.41
30 Trouble with boss	61	25.52	39	16.32	17	7.11	17	7.11
31 Change in work hours or conditions	53	22.18	77	32.22	47	19.67	10	4.18
32 Change in residence	53	22.18	105	43.93	59	24.69	22	9.21
33 Change in schools	62	25.94	122	51.05	40	16.74	5	2.09
34 Change in recreation	51	21.34	80	33.47	21	8.79	10	4.18
35 Change in church activities	42	17.57	36	15.06	8	3.35	4	1.67
36 Change in social activities	65	27.20	90	37.66	39	16.32	33	13.81
37 Mortgage or loan less than \$51,000	11	4.60	11	4.60	5	2.09	2	0.84
38 Change in sleeping habits	46	19.25	114	47.70	60	25.10	65	27.20
39 Change in number of family get-togethers	55	23.01	92	38.49	50	20.92	20	8.37
40 Change in eating habits	51	21.34	106	44.35	57	23.85	58	24.27
41 Vacation	40	16.74	114	47.70	78	32.64	43	17.99
42 Christmas	31	12.97	119	49.79	98	41.00	28	11.72
43 Minor violations of the law	49	20.50	37	15.48	16	6.69	12	5.02

Table 2*Correlation Matrix with Descriptives*

	α	N	M	SD	1	2	3	4	5	6	7	8	9	10
Positive Parent														
1 Behaviors	.93	245	2.49	.361	-									
2 Father Behavior	.90	197	2.52	.365	.855**	-								
3 Mother Behavior	.93	225	2.50	.413	.903**	.444**	-							
Overall														
4 compassion	.92	255	3.61	.452	.249**	.252**	.187**	-						
5 Self-Compassion	.93	255	3.11	.663	.146*	.155*	.094	.829**	-					
Compassion														
6 Toward Others	.90	255	4.12	.513	.250**	.238**	.211**	.690**	.166**	-				
Stressful life														
7 events Once		238	7.79	6.24	-.022	.041	-.083	.078	.084	.027	-			
Stressful life														
events More than														
8 Once		235	10.31	6.06	.046	-.001	.006	.244**	.193**	.183**	-.019	-		
Stressful life														
9 events 12 Months		207	5.57	3.96	-.095	.228**	-.043	-.042	-.105	.065	.146*	.289**	-	
Stressful life														
10 events 3 Months		180	8.65	10.65	-.061	-.149	.033	-.069	-.096	.007	-.098	-.005	.196*	-

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Stressful Life Events and Compassionate Outcomes

It was predicted that stressful life events would be positively related to compassion toward others. Additionally, it was hypothesized that life events would be inversely related to self-compassion. Results showed a significant correlation between stressful life events and feelings of compassion. Students who reported experiencing higher frequencies of stressful life events more than once in their lifetime ($M = 10.31$, SD

= 8.50) also reported increased feelings of overall compassion, ($M = 3.61$, $SD = .452$) such that $r = .244$, $p < .001$. Additionally, more frequent reports of stressful life events experienced more than once were correlated with higher rates of compassion toward others ($M = 4.12$, $SD = .513$), $r = .183$, $p = .005$. Furthermore, an inverse relationship between stressful life events and self-compassion was expected. While, a significant correlation was found for stressful life events experienced more than once emerged, this relationship with self-compassion ($M = 3.11$, $SD = .663$) was positive such that, $r = .193$, $p = .003$.

Positive Parent Behavior and Compassion

It was predicted that positive parenting behavior would be positively associated with compassion. Results showed that positive parenting behavior was positively correlated with compassionate outcomes. Higher reports of positive parenting behaviors ($M = 2.49$, $SD = .361$) were indicative of higher reports of feelings of compassion ($M = 3.61$, $SD = 0.452$) where $r = .249$, $p < .001$, in adult children. The association between positive parenting behaviors and compassion toward others ($r = .250$, $p < .001$) was slightly larger than parenting behaviors and self-compassion ($r = .146$, $p = .023$).

Similarly, positive father behaviors demonstrated the same association with compassionate outcomes. First, a positive relationship between father behaviors and overall compassion scores was found where $r = .252$, $p = .029$. Additionally, positive father behaviors were more strongly associated with compassion toward others ($r = .238$, $p = .001$) when compared to self-compassion ($r = .155$, $p = .029$). Further support for the

hypothesized association showed a significant relationship between positive mother behavior and overall compassion ($r = .187, p = .005$). Positive mother behavior was also significantly correlated with compassion toward others ($r = .211, p = .001$). According to Pearson's correlation coefficient, the strength of the relationship between parenting behaviors and compassion is small to medium. These findings are consistent with the hypothesis that positive parenting behaviors are positively associated with compassionate outcomes reported by adult children.

Stressful Life Events and Positive Parenting Behaviors

Additionally, it was proposed that stressful life events would be positively associated with positive parenting behaviors. Stressful life events were associated with student reports of positive parenting experiences. More recent reports of stressful life events experienced within the past 12 months ($M = 5.57, SD = 3.96$) were negatively associated with positive father behaviors ($M = 2.52, SD = .365, r = -.288, p = .004$). This finding supports the hypothesis that fewer stressful life events experienced would be associated with more reports of positive father behavior. Stressful life events were inversely related to positive parenting behaviors. Specifically, positive father behaviors seem to be particularly influential. No other correlations were statistically significant.

Positive Parenting Behavior as a Mediator

A mediation model was proposed to determine the links between stressful life events, parenting behaviors and compassionate outcomes. All variables included in the model represent total scores. Several models were tested to determine specific

relationships between stressful life events, positive parenting behaviors and compassionate outcomes (see Table 3a). It was proposed that the relationship between stressful life events and compassionate outcomes would be mediated by positive parenting behaviors.

stressful life events. Upon investigating the model proposed for stressful life events experienced at least once, significant main effects were identified for stressful life events and parenting behaviors (see Table 3a). The interaction between stressful life events experienced at least once and positive parenting behaviors were not significant in this model.

Significant main effects emerged for the relationship between stressful life events experienced more than once and overall compassion outcomes in the first step of the model, $b = .242, p < .001$. This relationship remained significant in step 2 of the model, $b = .231, p < .001$. A significant main effect for positive parenting behaviors was also identified in the second step of the model, $b = .224, p < .001$. No other main effects were significant in this model (see Table 3a).

Significant main effects for positive parenting behaviors were found when investigating the relationship between stressful life events experienced within the past 3 months and compassionate outcomes. Stressful life events was entered into the model in the first step, but the relationship between stressful life events experienced within the past 3 months and compassion was not significant.

Table 3a*Regression Analysis: Positive Parenting Behavior as a Mediator*

				Model 1			Model 2			Model 3			
	N	M	SD	B	SE(B)	b	B	SE(B)	b	B	SE(B)	b	
<i>Overall compassion</i>													
Stressful life events (12 Months)	201	5.59	3.96	-.003	.008	-.024	.000	.008	-.004	-.098	.050	-.860*	
Positive Parenting Behavior	201	2.47	0.37	-	-	-	.251	.085	.206**	.017	.144	.014	
Stressful life events*Positive Parenting Behavior	201	13.68	9.98	-	-	-	-	-	-	.039	.020	.870*	
Adj. R-squared					-.004			.033			.047		
Change in R-Squared					.001			.042**			.019*		
Stressful life events (12 Months)	159	5.89	3.97	-	0.004	0.009	-0.040	0.000	0.009	0.003	-0.120	0.047	-1.091*
Positive Father Behavior	159	2.50	0.38	-	-	-	0.222	0.093	.192*	-0.137	0.165	-0.118	
Stressful life events*Positive Father Behavior	159	14.38	9.70	-	-	-	-	-	-	0.049	0.019	1.087**	
Adj. R-squared					-0.005			0.024			0.060		
Change in R-Squared					0.002			.035*			.041**		
<i>Self-Compassion</i>													
Stressful life events	159	5.89	3.97	-	0.012	0.013	-0.071	-0.008	0.014	-0.046	-0.160	0.072	-.968*
Positive Father Behavior	159	2.50	0.38	-	-	-	0.191	0.142	0.109	-0.264	0.252	-0.151	
Stressful life events*Positive Father Behavior	159	14.38	9.70	-	-	-	-	-	-	0.062	0.029	.915*	
Adj. R-squared					-0.001			0.004			0.027		
Change in R-Squared					0.005			0.011			.029*		

** Beta is significant at the 0.01 level (2-tailed).

* Beta is significant at the 0.05 level (2-tailed).

Table 3b

Regression Analysis: Positive Parenting Behavior as a Mediator (Recent Stressful life events 12 Months)

<i>Overall compassion</i>				Model 1			Model 2			Model 3		
	N	M	SD	B	SE(B)	b	B	SE(B)	b	B	SE(B)	b
<hr/>												
Stressful life events	159	5.89	3.97	-.004	.009	.040	.000	.009	.003	-.120	.047	-1.091*
Positive Father Behavior	159	2.50	0.38	-	-	-	.222	.093	.192*	-.137	.165	-.118
Stressful life events*Positive Father Behavior	159	14.38	9.70	-	-	-	-	-	-	.049	.019	1.087**
Adj. R-squared					-.005			.024			.060	
Change in R-Squared					.002			.035*			.041**	
<hr/>												
Stressful life events	188	5.62	3.98	-.001	.009	.006	.000	.008	.001	-.050	.051	-.424
Positive Mother Behavior	188	2.49	0.42	-	-	-	.183	.080	.166*	.072	.138	.066
Stressful life events*Positive Mother Behavior	188	13.92	10.38	-	-	-	-	-	-	.020	.020	.439
Adj. R-squared					-.005			.017			.017	
Change in R-Squared					.000			.028*			.005	
<hr/>												
<i>Compassion Toward Others</i>												
<hr/>												
Stressful life events	159	5.89	3.969	.003	.010	.023	.008	.010	.067	-.080	.054	-.638
Positive Father Behavior	159	2.50	.377	-	-	-	.253	.106	.192*	-.010	.190	-.007
Stressful life events*Positive Father Behavior	159	14.38	9.695	-	-	-	-	-	-	.036	.022	.700
Adj. R-squared					-.006			.023			.034	
Change in R-Squared					.001			.035*			.017	
<hr/>												
Stressful life events	188	5.62	3.981	.008	.009	.065	.010	.009	.074	-.033	.055	-.255
Positive Mother Behavior	188	2.49	.422	-	-	-	.262	.087	.216**	.167	.150	.138
Stressful life events*Positive Mother Behavior	188	13.92	10.375	-	-	-	-	-	-	.017	.022	.339
Adj. R-squared					-.001			.040			.038	
Change in R-Squared					.004			.046**			.003	

Self-Compassion

Stressful life events	159	5.89	3.97	-.012	.013	-.071	-.008	.014	-.046	-.160	.072	-.968*
Positive Father Behavior	159	2.50	0.38	-	-	-	.191	.142	.109	-.264	.252	-.151
Stressful life events*Positive Father Behavior	159	14.38	9.70	-	-	-	-	-	-	.062	.029	.915*
Adj. R-squared					-.001			.004			.027	
Change in R-Squared						.005		.011			.029*	
Stressful life events	188	3.10	0.68	-.010	.013	.057	-.009	.013	-.054	-.066	.075	-.388
Positive Mother Behavior	188	5.62	3.98	-	-	-	.105	.118	.065	-.022	.204	-.014
Stressful life events*Positive Mother Behavior	188	2.49	0.42	-	-	-	-	-	-	.023	.029	.344
Adj. R-squared					-.002			.007			-.005	
Change in R-Squared						.003		.004			.003	

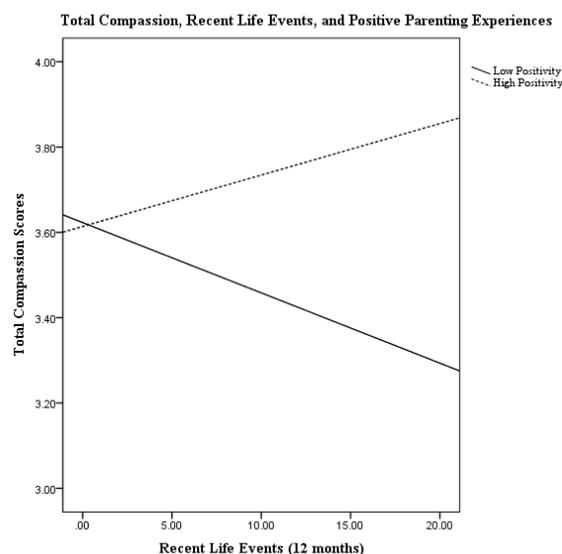
** Beta is significant at the 0.01 level (2-tailed).

* Beta is significant at the 0.05 level (2-tailed).

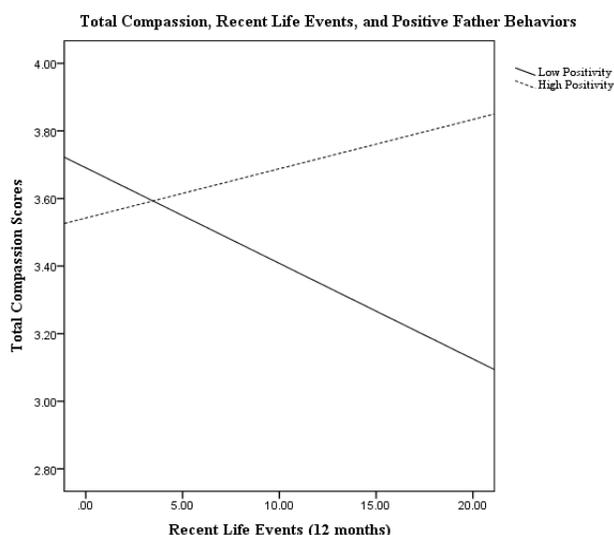
Positive parenting behaviors were introduced in the second step. A significant main effect for positive parenting behaviors was observed such that $b = .176$, $p = .020$. Positive parenting behaviors remained significant in the third step, when the interaction term was introduced to the model, $b = .214$, $p = .029$. No other main effects were significant in this model (see Table 3a).

life events experienced within the past 12 months. A significant interaction emerged specifically for stressful life events experienced within the past 12 months (see Table 3b). In the first step of the model, the relationship between stressful life events experienced within the past 12 months and overall compassion outcomes was not significant. A significant main effect for positive parenting behaviors, was found when the variable was entered the second step of the model, $b = .206, p = .004$. Additionally, stressful life events experienced within the past 12 months was a significant main effect in the third step of the model, when the interaction term was introduced, $b = -.860, p = .050$. Finally, a significant

interaction diminished support for the mediation hypothesis, $b = .870, p = .048$ (See Figure 1). Additionally, a significant interaction between stressful life events experienced at 12 months and positive father behavior (see Figure 2) was estimated. Similarly, the pattern



described above, a significant main effect for positive father behavior was found in the second step of the model, $b = .192, p = .019$. This significance did not carry over to the third step of the model when the interaction term was introduced. A significant main effect for stressful life events emerged in step 3, such that $b = -1.091, p = .011$. Finally,



the interaction between stressful life events experienced within the past 12 months and positive father behavior was significant, $b = 1.087$, $p = .010$. This finding supports the hypothesis that positive parenting behavior mediates the relationship between stressful life events and

compassionate outcomes such that positive father behavior explains the relationship between stressful life events experienced within the past 12 months and overall compassionate outcomes. A significant interaction was not observed for positive mother behaviors.

Further investigation of the interaction also showed support for the hypothesis that positive parenting behavior mediates the relationship between stressful life events



and compassionate outcomes (See Figure 3). Specifically, the relationship between stressful life events experienced within the past 12 months and levels of self-compassion were mediated by positive father behaviors. A significant main effect for stressful life events emerged in the

third step of the model such that $b = -.968, p = .027$. Finally, the interaction was significant such that $b = .915, p = .031$. Positive father behavior mediates the relationship between stressful life events experienced within the past 12 months and levels of self-compassion (see Figure 3).

Discussion

The aim of this study was to investigate possible predictors that influence the developmental of compassion toward others and self-compassion. Stressful life events and positive parenting behavior were identified as potential predictors. Additionally, the relationship between life events and compassion was partially mediated by reports of positive parenting behaviors in the sample.

First, the correlation between compassion toward others and self-compassion was positive. Consistent with previous findings, it was determined that more reports of experiencing self-compassion increased with reports of feeling compassion for others. While the existing literature on the relationship between compassion toward others and self-compassion varies, we were able to replicate findings previously reported (Pommier, 2011). Both of the scales used to measure compassion toward others and self-compassion were developed based on the Buddhist philosophy of compassion. As a result, the two constructs are similar in that the definition of compassion used to create each scale provided consistency for measuring the two variables in comparison to one another. Future research should focus on clearly identifying the specific aspects of compassion

that are associated with self-compassion, in order to fully understand the direct relatedness between the two constructs.

Next, findings supported the proposed relationship between life events and compassion. The association between life events and compassion toward others is consistent with previous studies within the literature (Lim & DeSteno, 2016). More reports of life events were indicative of higher reports of compassion toward others. The relationship between life events and compassion toward others was consistent, regardless of temporal attribution. The relationship between the two variables was only significant for life events that were reported as being experienced more than once in their lifetime. This demonstrates the possibility that the accumulation of life events experienced across the lifespan, may increase the individuals capacity for compassion overall, regardless of events experienced at a specific point in time. The association between life events and compassion toward others should be considered in future research to better understand the relationship between the two variables.

The correlation between life events and self-compassion were also significant, however directionality differed based on the temporal components included in the study. The association between life events and self-compassion was positive for events marked as having experienced once or more than once in a lifetime. Specifically, significance was found for life events experienced more than once, which is consistent with the correlational findings for compassion toward others as well. This is significant, because little is known about the relationship between life events and self-compassion. The same

takeaway can be concluded that accumulation of life events experienced more than once in a life time can influence a higher capacity for self-compassion. Unlike the results showed for compassion toward others, however, directionality of self-compassion associated with more recent life events was negative. This is significant, because higher reports of stressful life events within the past 3 months and 12 months were indicative of lower feelings of self-compassion. These findings suggest that self-compassion may not be a stable trait, but rather may be more malleable in the event of increased stressful life experiences within a short period of time. However, the strength of the relationship was not strong, and the association was not significant for recent life events. Future research should highlight the specific life events that are strongly associated with higher capacities for self-compassion. Additionally, research should also focus on the role of temporal components in influencing this relationship.

Finally, partial support for the proposed mediation model was ascertained. To determine the role of the temporal aspect in determining a significant interaction, several models were tested such that life events experienced once, more than once, and within 3 months were not significantly mediated by positive parenting behaviors. Main effects identified within these models focused on life events and parenting behaviors separately, however these significant associations did not hold with the introduction of the interaction into the model. A significant mediation did emerge, however, for life events experienced within the past 12 months. This is significant, because overall levels of compassion reported within the sample were mediated by positive parenting behaviors. Additionally, this mediation held specifically for positive father behaviors. Upon further

investigation of this model, positive fathering behaviors explained the relationship between recent life events experienced within the past 12 months and self-compassion. While, research investigating the role of positive parenting behaviors in contributing to compassionate outcomes in children is increasing within the recent literature. Little is known about the specific parenting behaviors that influence compassion. To my knowledge, this is the first study that has included both parenting and life events as proposed predictors of compassionate outcomes, and thus more research is needed.

Mindful parenting is a specific parenting behavior that has been included in recent studies involving self-compassion. It may be that the parenting behaviors presented in this study represent aspects of mindful parenting (acceptance, non-rejecting, and consistency) that in turn can affect the development of compassion within children. Specifically, the role of the mindful father is also of particular interest as a result of the findings reported in this study. Recognizing the heavy female presence within the sample, may warrant additional investigation into the role that gender plays in parenting and how that role translates to the other gendered child throughout development. More research is needed in order to fully comprehend the predictive power of stressful life events and parenting behaviors on fostering the development of compassionate outcomes in children, across the lifespan.

Limitations and Future Directions

Several limitations should be noted in this study. First, because of the nature of the correlational study, one limitation that exists is the fact that causation cannot be

determined. More research should be done to investigate the specific developmental processes that predict compassionate outcomes within an experimental setting. Additionally, this study was designed to address a general inquiry regarding the links between life events and parenting behaviors on compassionate outcomes, thus proposed analyses were conducted separately for specific predictors (father behavior and mother behavior) and specific compassionate outcomes (compassion toward others and self-compassion), increasing the potential for statistical errors to occur. Future research should include an increased sample size to determine if significant relationships identified above are in fact robust. Additional considerations include the scale used to measure life events. The Social Readjustment Rating Scale, while used widely in the life events literature, prompts questions regarding the inclusion of positive, neutral, and negative events lumped into one. More research is needed to determine which stressful life events impact the development of compassion toward others and self-compassion, in order to better understand the associations reported above. Additionally, measuring the temporal aspects of when life events were experienced would further contribute to our understanding of the relationships noted above as the current associations are unclear.

Future research should be done to investigate the influence of life events and positive parenting behaviors on fostering the development of compassion overtime. Specifically, two important questions come to mind: (a) Are there critical periods for developing compassion? And (b) are there gender differences between parents and children that impact the development of compassion?

Implications for Intervention

To my knowledge, limited research has investigated the associations between life events, parenting behaviors and compassionate outcomes. While practicing mindfulness based activities such as participating in loving kindness meditations have shown to increase dispositional compassion, more compassion based interventions should be developed in an effort to build a more broad capacity to experiencing compassion. Some interventions proposed by researchers focused on fostering self-compassionate outcomes have identified self-reflective practices such as daily journaling as a means to develop a wider threshold for compassion. Finally, recent research has focused on understanding the neurobiological processes that foster the development dispositional compassionate experiences. Interventions that are influenced by both biological and environmental factors that contribute to the development of compassion across the lifespan may provide a more balanced approach to understanding an individual's ability to achieve a zone of potential compassion.

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