Maternal Loss and Emotional Intelligence in Women:
An Exploration into the Potential Benefits of Childhood Trauma

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Abstract

Toward ascertaining potential positive sequelae of early maternal loss, 37 women (\(M\) age = 35.9 years) who experienced maternal loss prior to the age of 19 years (\(M\) age maternal loss = 12.2 years) completed tasks of emotional intelligence (EI), a posttraumatic growth inventory, a proxy measure of cognitive intelligence, a personality inventory, and a background questionnaire; a sub-sample (\(n = 6\)) also participated in in-depth interviews. Findings indicated positive correlations between posttraumatic growth scores and EI scores. Eighty-one percent of the sample also identified positive benefits of early maternal loss (e.g., increased empathy, independence). Further, while the sample did not surpass normative samples on measures of EI, it scored significantly higher on a measure of cognitive intelligence. Implications for humanistic healthcare and future research are discussed.
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Although there has been a substantial amount of information generated on the problem of parental loss, only a small percentage of this work has focused specifically on maternal loss caused by death. The research focusing on loss has typically employed the term “loss” as a broad category encompassing loss related to death, divorce, and abandonment. The primary focus of these studies has often been on the negative outcomes of this loss (e.g., later life depression). Almost none of this research has focused on the subsequent potentially positive consequences of parental loss.

In this thesis, I will focus on the positive impact of maternal loss on women. My interest in this problem has come from my experience of having lost my own mother to AIDS when I was four-years-old. I have often wondered how my personal development and interests are related to my mother’s death. I consider one of my great strengths to be my emotional intelligence, namely, my ability to relate to others, empathize with other people’s suffering, and to understand what people are feeling by listening to them and observing their expressions and behaviors. I believe that my emotional intelligence has played a large role in my academic interests in the fields of medicine and psychology.

My decision to focus solely on the effects of early maternal loss on women as opposed to early parental loss (i.e., the loss of either a mother or a father) on both men and women is one I made for both practical and personal reasons. Practically speaking, I thought that I would be more successful in my investigation if I kept a narrow focus. Nevertheless, I hope that my findings may be used to investigate the problem more fully, including the aspects I have chosen to exclude from this work. I chose to focus on maternal loss rather than paternal loss because of my personal experience. I narrowed my focus to the effect of
maternal loss on emotional intelligence in women because daughters’ identities are more intricately connected to those of their mothers than are sons.’ As the well-known feminist psychologist, Gilligan (1993) has written:

Female identity formation takes place in a context of ongoing relationship since “mothers tend to experience their daughters as more like, and continuous with, themselves.” Correspondingly, girls, in identifying themselves as female, experience themselves as like their mothers, thus fusing the experience of attachment with the process of identity formation. In contrast, “mothers experience their sons as a male opposite,” and boys, in defining themselves as masculine, separate their mothers from themselves…Consequently male development entails a “more emphatic individuation and a more defensive firming of experienced ego boundaries.”

(p. 8)

Thus, although I do not assume that maternal loss is by any means less difficult for men than for women, the thesis assumes that maternal loss has more bearing on women’s development and their self-identification than on men’s.

My research has been an attempt to discover whether the previously mentioned attributes of mine are simply personality traits or whether they have been fostered by my life experiences, specifically, by the experience of losing my mother. By assessing the emotional intelligence of other women who have lost their mothers and analyzing the information I obtain from these women in the context of their life stories, I hope to be able to demonstrate an association between maternal loss and emotional intelligence.

The theoretical implications of an association between emotional intelligence and maternal loss are multifaceted, particularly because such a discovery could indicate a larger
association between emotional intelligence and trauma. An association between emotional intelligence and trauma might change the way that individuals cope with traumatic experiences. If it were discovered that trauma could better an individual’s character by increasing his or her emotional intelligence, physicians and psychologists could focus on the specific ways in which these benefits could be brought to the fore.

For example, rather than treating an adult with depression related to a traumatic childhood event, professionals could learn how to treat the individual earlier, that is, in the immediate aftermath of the trauma. In this way, professionals might not only prevent the depression from subsequently occurring but might also help the individual use his or her trauma to improve his or her life. The lives of many people who have suffered from trauma could be improved if these individuals knew how to cope with the negative effects of trauma, such as depression and anxiety, while simultaneously embracing in a more hopeful manner the positive consequences of having encountered trauma. In this way, an association between trauma and emotional intelligence could help individuals cope with the inevitable negative effects of trauma by providing them with a greater purpose that might be helping others, which is in itself cathartic and which of course would greatly benefit society as a whole.

Research on Parental Loss

The focus of research on the problem of parental loss has often been directed specifically toward its negative influences because many of the early childhood bereavement studies (e.g., Dowdney, 2000) have documented depressed mood and phobic disorders in children who have lost a parent. Though many of these early studies have received criticism for methodological shortcomings that threatened to invalidate their results, researchers have been eager to either support or provide evidence against these early findings. In response to
studies (e.g., Tennant, Bebbington, & Hurry, 1980) that have indicated that child bereavement alone does not cause psychopathology in adults, some researchers have dedicated their work to unveiling the specific life factors that influence this negative outcome in efforts to find better ways to prevent its occurrence.

In addition to focusing solely on negative consequences of childhood bereavement, many early bereavement studies have focused on loss without differentiating among types of loss. However, the authors of the highly influential Cleveland Study of Bereaved Children (1969) acknowledged this problem arguing that “all children encountered death and bereavement in some form” and, consequently, it was essential to specify parental loss caused by death in order to “outline some prophylactic educational measures that could pave the way for coping with such experiences” (Furman 1974, p. 3). Similar to other studies on bereavement, the Cleveland Study focused on the negative effects of parental loss as did most of the significant research conducted in its aftermath such as the Harvard Bereavement Study (1993). The goal of the Harvard study was specifically “to establish whether there [was] a relationship between the death of a parent and the development of serious emotional problems in the surviving children” (Silverman & Worden, 2000, p. 472). Studies of this sort have not focused specifically on possible long-term benefits of parental death. Positive findings of this nature are likely to have been left without any in-depth investigation because these results would have conflicted with the desired findings of the research teams involved.

Although there have been studies conducted on the influence of parental loss and, even specifically, parental death on children, the research dedicated solely to the problem of maternal death has been more limited. Even more scarce has been information regarding the influence of maternal death specifically on women. The importance of directing research to the problem of maternal death has been corroborated by research results, such as those
generated by the Harvard Bereavement Study, which found that a child has more difficulty coping with the loss of a mother than of a father. Specifically, the study found that:

two years after the loss of a parent, children whose mothers [had] died [were] more likely to have emotional and behavioral problems, such as anxiety, acting out, lower self-esteem, and lower feelings of competence, than those who lost fathers. (Edelman, p. xxiv)

The study also found that children remain more emotionally connected to their dead mothers than to their dead fathers. In relation to girls, this finding has been supported by Gilligan’s theory on female identity development, which offers an explanation as to why young girls present with more psychological problems after losing a mother than they do after losing a father. However, considering the important connections among women, their mothers, and their identity development, particularly in light of the research findings described above, the influence of maternal loss on women is a problem requiring more scientific inquiry.

In response to the many scientific studies on parental death, several books have been written specifically on the problem of maternal loss, including Edelman’s (1994) “Motherless Daughters” and Davidman’s (2000) “Motherloss.” Edelman’s inspiring book was a compilation of women’s collected narratives describing their experiences of being motherless. Based on her own experience of having lost her mother as well as on the experiences of the women she interviewed, Edelman has written:

As motherless women, we share characteristics we don’t usually find in other female friends, including a keen sense of isolation from family; a sharp awareness of our own mortality; the overall feeling of being “stuck” in our emotional development, as if never having matured beyond the age we were
when our mothers died; the tendency to look for nurturing in relationships
with partners who can’t possibly meet our needs; the strong desire to give
our children the kind of mothering we lost, or never had; an intense anxiety
about losing other loved ones; a gratitude for the “small moments” in each
day; and an awareness that early loss has shaped, toughened, and even freed
us so that we can make changes and decisions we might not have otherwise
made. (Edelman, p. xxix)

Edelman has identified some benefits of having lost a mother, such as greater appreciation
of life and a heightened awareness that provides women with new opportunities that they
would not have had if their mothers had lived. However, these benefits were not the focus
of Edelman’s book: its focus was in unifying women by their common experience of having
lost a mother.

Similarly to Edelman’s work, Davidman’s “Motherloss” had its own agenda and, in
following that agenda, failed to focus on the subsequent positive aspects of maternal death.
As a sociologist, Davidman focused on the cultural context of mother loss. Specifically, she
illustrated how the role of a mother in Western culture, cultural attitudes toward death, and
the dominant images of mothering existent within our society influence how women cope
with the loss of their mothers. Although her book has provided insight into a very specific
aspect of mother loss, it focused more on the negative effects of mother loss than on
particular benefits.

Though Edelman and Davidman’s books provided invaluable insight into the ways
maternal loss influences women, these authors did not focus strongly on possible benefits of
maternal loss on women nor did they focus at all on emotional intelligence. These books’
failure to address the topic of emotional intelligence was understandable because the concept
did not gain widespread notoriety until Goleman’s (1995) publication of “Emotional Intelligence.” The societal response, intrigue, and commitment to the notion of emotional intelligence have continuously developed in response to Goleman’s book and these texts were written too early to be impacted by Goleman’s publication. However, the two books encouraged further investigation into the ways that maternal loss can influence what we now understand as the emotional intelligence of women.

**Research Regarding Grief and Mourning**

The following sections of this paper will explore the more commonly studied negative conceptions of loss. Such conceptions have been expressed in the works of Freud, Lindemann, Bowlby, and Kubler-Ross, each of which will be reviewed in turn.

**Freud.** Freud studied the problem of traumatic loss and mourning to understand the way humans cope with grief. His (1917) publication, “Mourning and Melancholia,” was one of the earliest investigations and interpretations of traumatic loss from within his psychoanalytic framework. Psychoanalytic theory involved two main components. The first component consisted of the psychosexual stages of development, namely, oral, anal, phallic, latency, and genital stages that children transitioned through as they matured from birth through adolescence. According to Freud, adult behavior could often be attributed to an individual’s fixation or regression to one of these childhood stages. The second component involved his construction of the mind as comprised of the id, ego, and superego. According to Freud, all humans faced constant internal conflict between unconscious, instinctual drives represented by the id, and the conscious, higher systems of the mind governed by reason and represented by the ego. Freud later added a fundamental piece to his theory regarding the mind’s composition—the superego—that acted as an individual’s conscience, negotiating between the id and the ego. He proposed that the id followed the *pleasure principle* whereas
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the ego and superego followed the reality principle and, consequently, the selfish desires of the id often conflicted with reason as governed by social standards within the outside world.

Freud’s “Mourning and Melancholia” elaborated on the themes of narcissism and identification drawn from his previously mentioned theoretical notions. Specifically, his paper differentiated between two types of depressed states: mourning and melancholia. He described mourning as the normal response to grief caused by the loss of a loved object. In the long, exhausting mental process of mourning, an individual struggled to recognize consciously the loss and detach his or her libido (what Freud used to describe the sexual drive) and “all that is encapsulated by the word ‘love’” (Bradbury, 2001, p. 214) from the lost object to a new object in order to move past the trauma of the loss. Despite a mourning individual’s desire for the return of the lost object, he or she was able to understand the reality that the lost object would never return. Because the narcissistic ego desired life, it chose to cut its ties to the lost object to save itself from suffering a similar fate.

In contrast to mourning, Freud described melancholia as an unnatural and a debilitating response to grief. He claimed that melancholia occurred when an individual identified himself or herself with the lost object and, consequently, rather than directing his or her libido toward a different object, focused it back onto his or her own ego. In this way, the melancholic individual established a “narcissistic identification of the ego with the abandoned object” and, consequently, “‘object loss’ [was] transformed into ‘ego loss’” (Bradbury, 2001, p. 216). Freud held the transition from object to ego loss responsible for the detrimental symptoms of melancholia including:

Cessation of interest in the outside world, loss of the capacity to love, inhibition of all activity, and a lowering of the self-regarding feelings to a degree that finds utterance in self-reproaches and self-revilings, and
culminates in a delusional expectation of punishment. (Bradbury, 2001, p. 215)

Through the process of identification “the ego [sought] to incorporate [the lost object] into itself, and, in accordance with the oral…phase of libidinal development in which it [was settled]…[wanted] to do so by devouring it” (Bradbury, 2001, p. 216). Freud emphasized that, although melancholia caused self-hatred and self-harm, the hatred and harm were not actually directed at the ego but rather at the lost object.

_Lindemann_. The transition from a moral to a scientific explanation of illness that began in the 1890s fostered the medical profession and the subsequent rise of medicalization (Petrina, 2006). Not until the mental hygiene movement of the 1920s, however, did psychological conditions become medicalized. Medicalization of mental health issues during the 1920s benefited the study of grief and mourning by bringing these issues to public attention and deeming them worthy of scientific study.

In line with this transitional movement, Lindemann (1963) published an article entitled “Symptomatology and Management of Acute Grief,” a document that described a new medicalized version of grief that differed from Freud’s theory. His article defined _acute grief_ as a syndrome with both psychological and somatic symptoms that negatively affected individuals. The somatic symptoms included:

Sensations of somatic distress occurring in waves lasting from twenty minutes to an hour at a time, a feeling of tightness in the throat, choking with shortness of breath, need for sighing, and an empty feeling in the abdomen, lack of muscular power, and an intense subjective distress described as tension or mental pain. (Lindemann, 1944, p. 9)
In addition to the previously mentioned physical symptoms of acute grief, Lindemann found various psychological symptoms including a sense of non-reality, emotional distancing from the social world, obsession over the image of the diseased, feelings of guilt and hostility as well as an inability to engage in normal conduct. Further, he proclaimed that acute grief could be treated by psychiatric techniques that would transform acute grief into normal grief that could more easily be resolved. Although the medicalization of grief made the problem acceptable for scientists to study during the early 1900s when medicine began to gain social authority, it ultimately had negative consequences on the social perception of grief.

The medicalization of grief not only focused society’s attention solely on symptoms, such as those mentioned in Lindemann’s publication, but it also conditioned society to disregard the way grief was socially constructed. Society's medicalized focus on individuals’ responses to loss prevented grief from being studied as an emotion created and shaped within a social context. Society paid little attention to the way an individual’s relationship with the deceased influenced his or her grieving experience or how the public understanding of grief was molded by varying situational factors, which in turn influenced how grief was defined and expressed.

Bowlby. Bowlby (1960) published “Grief and Mourning in Infancy and Early Childhood,” a paper that contradicted medicalized theories of grief by emphasizing the social causes of mourning. He theorized that grief and mourning occurred when attachment behaviors were activated and subsequently made unavailable. Bowlby drew on Harlow and Zimmermann’s (1958) investigation of maternal deprivation in young rhesus monkeys. On the basis of Zimmermann’s study and subsequent research, Bowlby identified three phases an individual passed through following his or her separation from a figure to whom he or she had been attached. Each phase was associated with specific emotions that had
previously been viewed as illnesses. They defined the first stage of an individual’s response to separation as protest, which was followed by despair, and ultimately culminated in denial or detachment. Separation anxiety marked the protest stage, grief and mourning characterized the despair phase, and defense mechanisms and regression typified the stage of denial or detachment. To be defined as an illness, these symptomatic emotions required consistency among individuals so that, as a collection, they could be used as a diagnostic tool. However, Bowlby argued that individuals’ responses to losing an attachment figure varied depending on the social context, including the type of attachment that had existed between the two individuals prior to their separation as well as individuals’ environments in the aftermath of the separation.

Kubler-Ross. Kubler-Ross’s (1973) book, “On Death and Dying,” supported Bowlby’s emphasis on the social implications of grief and mourning. She based her theory on the experiences of individuals coming to terms with their impending deaths. These individuals’ grief and mourning responses were founded in the social construction of death as a disease that marked personal failures and consequently was to be fought against rather than accepted if one wanted to avoid the shame and stigma of death. Medicalization had replaced religion with science and, consequently, many individuals no longer perceived death as a naturally occurring process or believed in an afterlife, which in turn made death impossible to ignore. These common beliefs reinforced the need for the technical imperative, a medical ideal that commended scientists for using modern technology whenever possible to save a life, regardless of the consequences of such treatment.

The previously mentioned social context in which dying individuals were forced to cope with the idea of death helped mold the five reactions that Kubler-Ross (1973, 2005) identified as stages of grief. According to her, the stages occurred in the following order:
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denial and isolation, anger, bargaining, depression, acceptance, and finally, hope. She argued that coming to terms with the greatest loss—that of oneself—was contingent on an individual’s ability to pass successfully through each of the five stages. One’s failure to do so resulted in fixation on the loss and unresolved internal conflict combined with somatic symptoms of acute stress. Most important, Kubler-Ross extended her theory on stages of grief to include family members of dying individuals who faced the difficult task of coming to terms with the loss of an attachment figure.

Kubler-Ross (1973) also presented various socio-cultural and environmental conditions that influenced individuals’ abilities to work through stages of grief when a loved one was dying. These conditions included the gender of the dying individual, the amount of social support provided to the family, the type of communication in which the family engaged, the end-of-life behavior of the dying individual, the type of illness and death, the environment in which the death occurred, the treatment of the deceased’s family after the death, and the age of the family members coping with the death. In most cases, the effects of these socio-cultural and environmental influences on an individual’s coping abilities were determined by the extent to which various circumstances induced stress in the bereaving person.

Gender has often been influenced by socially constructed norms of behavior that vary among cultural groups, typifying what behaviors are deemed appropriate for males and for females. Consequently, stereotyped gender roles have influenced how individuals cope with the death of a family member. For example, in Western society, men have traditionally filled the dominant role in the family, responsible for the family’s finances. Women, on the other hand, have typically acted as the family’s caregiver, responsible for raising the children and keeping the house running on a daily basis. Consequently, when a husband is dying, his
wife might feel anxiety and pressure anticipating the loss of her dependency and security. If, according to traditional gender roles, she has never before acted as the “head of the household,” she might worry how she will financially support her family after her husband’s death.

Interesting to note, Kubler-Ross has stated that a husband whose wife is dying often faces more difficulties because of gender role strains than does a wife when her husband is dying. A husband who has adopted the typical male gender role encounters similar problems as a wife when in his situation. He might feel anxiety related to his insecurity and lack of knowledge about how to do simple tasks such as grocery shopping or laundry as well as more important tasks such as raising children. However, Kubler-Ross attributed a husband’s greater difficulty adopting the role previously filled by his wife to the common perception that masculinity is superior to femininity. A man might be embarrassed to be seen doing the submissive jobs previously taken care of by his wife. He might begin to perceive himself as less manly and become insecure. Further, men have been expected to be less emotional than women. Consequently, men may have more difficulty expressing their grief and coping with the emotional trauma of losing a loved one.

Kubler-Ross’s claim that men cope less well than women following spousal death has been supported by the finding that men frequently rely on their wives to facilitate and foster social relationships. In this way, social norms have made men dependent on women when it comes to creating and sustaining social support networks. Consequently, men suffer more greatly than women after the deaths of their spouses because of the profound social isolation they face in their wives’ absences (Pihlblad & Adams, 1972). Other studies (e.g., Flaherty & Richman, 1986) have indicated that increased social support is directly related to
a reduction in stress and, consequently, because men have fewer support systems than
women following their spouses’ deaths, they have fewer resources to help them buffer stress.

Another socio-cultural element that contributes to a family’s ability to cope with
death is the structure of the family. Family structure often dictates the amount of support
family members provide to one another and the type of communication in which family
members engage. Kubler-Ross has claimed that members of a close, communicative family
are better able to support one another. She specified that the most effective method of
communication among family members is one that is open and honest. A family unit that is
able openly and comfortably to discuss the impending death of one of its members most
effectively copes with such a trauma. It is particularly important that each person is able to
voice his or her concerns regarding life after the impending death. Unfortunately, Kubler-
Ross noted that Westerners’ tendency to fear and ignore impending death often causes
family members to conceal their true feelings from one another.

Not only have studies on family communication and parental loss indicated benefits
of communication among family members in the dying phase of a parent’s life, such studies
have also drawn attention to the benefits of effective communication between children and
their remaining parent following an incident of parental death. A study on children’s
psychological distress following parental death (Raveis, Siegel & Karus, 1999) found that
“the level of distress reported in bereaved children…[was] highly correlated with the child’s
perception of the surviving parent’s level of openness in general…even after controlling for
other potentially important factors” (p. 176).

In addition, a family’s ability to cope with the death of one of its members is often
influenced by the end-of-life behavior of the dying individual. When a dying individual
demonstrates his or her ability to work through grief and to approach death calmly and with
dignity, the family is better prepared to cope in a similar way. In contrast, when a dying individual’s behavior causes tension within the family, the survivors have more difficulty coping after the death because they are burdened by guilt over the tension that had existed between them and the recently deceased.

It must be noted that many factors, particularly the type of death, affect the behavior of a dying person and his or her family. For example, when an individual is suffering from a prolonged and miserable death, members of his or her family may wish for the death to occur. Such a reaction is only natural in these situations; however, the guilt an individual is likely to face for wishing death upon a loved one makes coping with the death more difficult. Family members are also more likely to feel guilt following the death of an incapacitated individual whose death was inevitable yet prolonged, forcing family members to struggle over whether to continue or terminate costly treatments (Kubler-Ross, 1973). On the other hand, Kubler-Ross has claimed that individuals are better at coping with a family member’s death if given time to prepare for it. In other words, despite its downfalls, a slower death is often easier for a family to cope with than a sudden and unexpected death.

Kubler-Ross (1973) has also acknowledged the influence of the environment in which the death occurs on how individuals cope with a family member’s death. Families cope most easily with death when they have had positive experiences in hospital environments. Kubler-Ross has emphasized the importance of designated physical space in hospitals solely for family members and a consistent presence of religious counselors, social workers, nurses, and doctors who have formed personal connections with the families and who are available and able to address the families’ concerns. Further, she has highlighted the importance of institutional support for the families in the immediate aftermath of their loved ones’ deaths as well as social support once the family has returned to its home environment.
Last, but of equal if not greater importance than the socio-cultural factors contributing to a family’s ability to cope with death, is the age and number of children in the family. For many adults, it is more difficult to communicate honestly and effectively with children. Communication failures between the remaining parent and his or her children often is a fault of the widow or widower’s inhibition to discuss the death as well as the children’s consequent fear to bring up the subject and cause the remaining parent any anger or sadness. In such instances, children often hide their emotions and feel additional guilt and remorse for simply thinking about the death. The failure of these children to express their true feelings and to feel that they can confide in someone can prevent them from coping with the death, allowing it to cause more severe psychological stress as they develop.

In very young children, communication is inherently more difficult, especially about the topic of death. For one, young children have different conceptions of death and often are unable to understand the facts that their remaining parent might try to convey to them. For example, Kubler-Ross (1973) has described how children’s perceptions of death develop as they age. Children around three-years-old do not understand the meaning of death but are concerned with separation and, because children of this age are in the process of just coming to understand and care about their own bodies, they fear bodily mutilation. Children who are younger than five years cannot understand the permanence of death and often anticipate the return of the deceased parent. Children over five years tend to personify death as an inhuman but masculine figure that they fear, who might come after them or other family members. Not until nine or ten years do children begin to develop a true understanding of death as an irreversible physical process. Adolescents are able to understand death in the same way as adults; however, the difficulties that come with being an adolescent often make coping more difficult for them. For example, an adolescent girl who loses her mother may
have more difficulty coping than other family members because she can no longer depend on her mother to teach her about issues such as when to buy her first bra or how to handle her first menstrual cycle.

**Maternal Loss and Depression**

Many studies have focused on the influence of maternal loss on depression and anxiety in children and adults. The attention these studies have elicited from the general public has created a false conception that depression and anxiety are directly related to the actual death of a mother. This erroneous belief has been noted by various researchers such as Crook and Eliot (1980) and Tennant, Bebbington, and Hurry (1980). Both groups of researchers, the former in the United States and the latter in Great Britain, have generally concluded that “…the link between early parental death and depression in adulthood has been overstated” (Tremblay & Israel, 1998, p. 425). They have attributed the erroneous conclusions to faults in the methodology of these studies, particularly the failure of these studies to take into consideration the varying circumstances surrounding the death that may have played significant roles in the depression and anxiety found in adults who had experienced early maternal loss. Upon closer examination of studies on the relationship among maternal loss, depression, and anxiety, it became clear that, although maternal loss during childhood has been shown to “…[double] the risk of depression in adult life for women” (Tremblay & Israel, 1998, p. 426.), these studies failed to indicate a clear causal relationship between these negative outcomes and the death itself. Further, studies investigating the influence of the family environment following maternal death (e.g., Saler & Skolnick, 1992) have contributed to the growing recognition that loss construed as a unitary event is not a particularly powerful predictor of subsequent adjustment. Loss is more usefully conceptualized as an extended and multifaceted process, whose impact on survivors
is strongly influenced by surrounding circumstances and stressors and by how the various roles performed by the deceased are fulfilled, reshaped, or left vacant in his or her absence.

Two particularly important indicators of depression and anxiety in adults who have lost a mother are the relationship of the individual to his or her mother before her death and the care provided to the individual following his or her mother’s death, both of which may be analyzed in the context of Bowlby and Ainsworth’s attachment model. According to this model, when an older child or adult is faced with a threatening situation such as maternal loss, the way in which he or she copes with it depends upon his or her internal working model, which is highly influenced by the types of attachments children form early in life. These attachments determine an individual’s disposition toward his or her self-perception and perception of others as well as preferred methods of dealing with perceived threats.

According to the attachment model, secure attachments are “associated with an internalized sense of being worthy of care, of being effective in eliciting care when required, and a sense of personal efficacy in dealing with most stressors independently” (Maunder & Hunter, 2001, p. 558). Insecure attachments are categorized as preoccupied, dismissing, or fearful, the former acting as the “adult correlate of infant angry-ambivalent attachment” and the latter two acting as the “adult correlate of infant avoidant attachment” (Maunder & Hunter, 2001, p. 558-559). In threatening situations, individuals with preoccupied attachments seek care from others, but the cathartic result of this care is only partial and transient. Dismissing attachments cause individuals to have a positive perception of self but a negative impression of the efficacy of social support. Consequently, individuals with dismissive attachments, distrust the social world, and avoid forming intimate relationships. Fearful attachments result in negative self-perceptions as well as social perceptions and,
therefore, individuals with fearful attachments have difficulty coping with stressful situations on their own, but cannot turn to others for support.

The importance of social support in coping with maternal loss has been well documented. The internal working models that are determined by childhood attachment styles are particularly strong indicators of the degree to which individuals can reach out for social support in difficult situations. In the case of maternal loss, older children and adults who established secure attachments during their early childhood are better able to handle the situation in a way that allows them to use all the resources available to them to work through their grief. Those who established insecure attachments are less equipped to handle such a situation effectively. Consequently, their attachment style influences the intensity and duration of stress responses, anxiety, and depression following maternal loss.

The impact of maternal loss in early childhood, that is, during the formation of attachment bonds between mother and child, poses a different story. In this case, maternal loss directly interrupts attachment styles and can cause an insecure attachment to develop, which can create subsequent problems in coping with the loss throughout childhood and adulthood. However, studies (e.g., Kraemer, 1992) have indicated that the negative impact of maternal loss on children related to its facilitation of detrimental attachment styles can be prevented. Specifically, Kraemer has found that “the degree of residual impaired function in isolation-reared monkeys depends on the extent to which maternal functions are replaced by a surrogate and by the age of the monkey at the time of replacement” (Maunder & Hunter, 2001, p. 557).

Stage theories of the mourning process (e.g., Kubler-Ross, 1973) have also pointed to social and environmental circumstances surrounding maternal death when explaining an individual’s inability to cope with grief. The event of maternal death triggers the grieving
process but does not directly affect how an individual proceeds through the necessary steps
required to work through the mourning experience. Saler and Skolnick’s (1992) study has
emphasized post-death communication as a significant indicator of whether children were
able to mourn a mother’s death properly. They have found that open communication
between children and remaining family members following maternal death helped children
work through their grief by discussing and making sense of their emotions. Further,
mourning-fostering activities that lessen children’s risk of future depression such as
attending funeral related events, being able to keep mementos of the dead
parent, openly expressing anger to someone else about the death, hearing
stories about the deceased parent, seeing pictures in the home of the dead
parent, and visiting the [dead parent’s] grave (Saler & Skolnick, 1992, p. 513)
are more prevalent in families who engage in open communication following maternal loss.
In addition, open communication is less prevalent in families in which the remaining
caregiver or parent “is not warm, affectionate, or nurturing” (Saler & Skolnick, 1992, p. 513).

These attributes in a caregiver following maternal death have been associated with
high self-criticism scores among participants in a study conducted by Blatt, Wein, Chevron
and Quinland (1979). The self-criticism scores, in turn, proved to be associated with
depression in individuals who had lost a mother during childhood. It would be interesting to
investigate the way other post-death variables such as father’s remarriage, use of therapy, and
living situation, specifically influence children’s ability to communicate about maternal death
and cope with it.

The social environment in which children grow up following their mothers’ deaths
seems to have significant influence on children’s coping ability largely because of the degree
to which the environment increases or decreases role strain. The significance of role strain
Maternal Loss has been largely acknowledged in spousal grieving and adjustment following the death of a significant other. For example, Pilblad and Adams (1972) found that men suffered more from role strain than women because men were less accustomed to social roles that were of great use in coping with loss. The influence of role strain also applied to children, but it has been better documented in studies (e.g., Foster & Williamson, 2000) that have examined the influence of death on family dynamics in less developed countries. Many of these studies have indicated the particularly difficult task facing female children with younger siblings in areas such as sub-Saharan Africa. In regions plagued by HIV/AIDS, many female children have been left motherless, and consequently, have been forced to assume the role of caring for younger siblings. The influence of role strain on American children following maternal death is a problem that would benefit from more research.

The previously mentioned research on maternal death and its influence on children’s coping abilities have been understood from various frameworks including those of attachment and stage theories. Children’s abilities to cope with maternal death have been related to social and environmental pre- and post-death factors, particularly those that influence available social supports, those that foster open communication, and those that decrease familial role strains. It is these factors that have been shown to influence whether children who suffer maternal death are likely to suffer from anxiety and depression throughout their lives. These studies have indicated that maternal loss might predispose children to later life depression and anxiety but that other factors ultimately determine how children cope with maternal loss and, their success at creating lives undisturbed by the negative repercussions maternal loss has the potential to create for them.
Positive Effects of Trauma on Psychological Well-Being

In contrast to the voluminous literature on the negative effects of maternal death specifically, and of stress and trauma more generally, there has been significantly less research on the positive effects of stress and trauma perhaps because, as Sigal (1995) has noted, individuals appear to perceive something indecent in pursuing this line of inquiry. Nonetheless, several quantitative studies of resiliency have shown positive effects of trauma.

For example, Rousseau, Drapeau, and Rahimi’s (2003) longitudinal study on the emotional and behavioral well-being of refugee Cambodian adolescents in Montreal has found that children whose families had experienced trauma before their births exhibited fewer externalizing symptoms/risk behaviors (e.g., drug use) than their Quebec-born peers. The researchers have interpreted their results as reflecting an implicit mission to succeed entrusted to adolescents in families that had experienced suffering whereby the meaning of the trauma had a protective influence on the course of their future lives.

Other studies (e.g., Ferren, 1999) have reported increases in both altruistic and planning behaviors as well as more positive perceptions of one’s capacities following traumatic experiences. In a related manner, studies have also shown developmental gains following stressful life events such as the transition to parenthood (e.g., Doherty, Erickson, & LaRossa, 2006) and divorce (e.g., Bursik, 1991). Although these studies have attested to the notion that both stress and/or trauma may lead some individuals to experience positive consequences, they have had minimal influence in counteracting the almost universal belief that the effects of stress and/or trauma are almost always negative and/or pathologic, that is, until the more recent movement of positive psychology.

Seligman (2002) has been credited with introducing the term positive psychology within the social scientific literature. On the basis of his (1991) prior research on learned optimism,
he has argued that social scientists need to begin studying the positive aspects of human functioning (e.g., positive traits emphasizing strengths and virtues; positive institutions such as democracy, strong families, and free inquiry; positive emotion) rather than focusing on the negative aspects of functioning (cf. Freud, 1917). This has led to a proliferation of research including work on emotional intelligence, which serves as the basis for the empirical study described herein. This research will now be briefly reviewed.

**Theories of Cognitive Intelligence, Emotional Intelligence and Related Constructs**

Intelligence has generally been considered a trait that is influenced by one’s inherited genes as well as by one’s environment. The influence of heritability in levels of intelligence has been demonstrated in twin studies, which showed a higher correlation between the IQs of identical twins brought up in different environments as well as by adoption studies, which showed that the IQ scores of children who were adopted correlated more highly with the IQs of their birthparents than with their adoptive parents. However, environmental factors (e.g., educational resources) have often determined the extent to which genes have been able to predict IQ. Socioeconomic and political environmental factors, which reflect inequalities related to race, class, and ethnicity, are responsible for the development and fostering of IQ regardless of the specific degree to which the trait is heritable (e.g., Smith & Pellegrini, 2000).

Scientists have attempted to explain and interpret the meaning and structure of intelligence through evolving paradigms including psychometric, cognitive, cognitive-contextual, and biological theories. One of the first psychometric theories, proposed by Spearman (1904), employed the statistical technique of factor analysis to examine differences among individual test scores. Spearman’s factor analysis led to his emphasis on two intelligence factors: the *general factor* (g) and the *test-specific factor* (s). Other psychometric theories have posed different ideas regarding the number and types of mental abilities.
Further, the theories have disputed the organization of these abilities such as whether or not they fit within a hierarchical structure. Common to psychometric theories has been the value of test scores as a measurement tool; however, the theories have not explained the processes responsible for governing intelligence (e.g., Smith & Pellegrini, 2000).

Cognitive theories arose out of a need, emphasized by Cronbach (1957), to study intelligence through both the differences and commonalities in human behavior. Cognitive analysis developed as a way to understand more clearly the meaning of test scores by determining how much the scores measured high reasoning ability and how much the scores were influenced by individuals’ inabilitys to understand the questions or the vocabulary in which the questions were presented. According to cognitive theorists such as Hunt, Frost, and Lunneborg (1973), intelligence is made up of mental representations of different types of information and processes responsible for operating these representations. Thus, intelligence measures how well one represents and operates these internal representations.

The varying theories on cognitive intelligence have disputed whether cognitive processes are consecutively executed in a series (serial processing) or whether cognitive processes occur simultaneously (parallel processing). A significant failure of these theories, however, has been their inability to account for the context in which intelligence must be understood to explain varying descriptions of intelligence across cultural groups and discrepancies among intelligence tests scores and the actual performances of individuals on various tasks (e.g., Sternberg, 1999).

Cognitive-contextual theories have attempted to explain intelligence within particular contexts. Two important cognitive-contextual theories, Gardner’s (1983) theory of multiple intelligences and Sternberg’s (1985) triarchic theory, have played a large role in our current understanding of intelligence. Gardner described a theory of multiple intelligences that he
believed could be universally applied. He defined the following types of confirmed intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic as well as two candidate intelligences: spiritual and existential. Gardner’s theory has positively changed the way society perceives intelligence by showing the varying forms that intelligence may take; however, the theory itself has been criticized for lacking empirical support.

Sternberg (1999) has agreed with Gardner’s position that the earlier notions of intelligence lacked the breadth necessary for them to be applied universally. Thus, he defined three interdependent aspects of intelligence rather than types of intelligence, including analytical, creative, and practical intelligence. According to his theory, “the processes of human intelligence are universal but their instantiations in behavior are contextually bound” (p. 3).

In contrast to the previously mentioned theories of intelligence, biological theories, often seen as reductionistic, have attempted to describe the behavior behind intelligence rather than explaining what intelligence actually is. That is, biological theories have pointed to the role of the brain in mediating abilities that mark intelligence. For example, Levy (1970) has found that different parts of the brain are responsible for different functions: the left hemisphere for analytical functions and language and the right hemisphere for visual and spatial skills. Other studies (e.g., Horn, Gold, Esposito, Ostrem, Mattay, Weinberger & Berman, 1965) have emphasized the role of blood flow to the brain and its effect on intelligence related abilities.

Development of Intelligence

Piaget’s (1952) work on intellectual development in children has greatly influenced how society now perceives intelligence and the way in which it develops in individuals. He theorized that children observe and make generalizations about the world through the
processes of assimilation and accommodation. Through these processes, children add information into their pre-existing cognitive schemas (assimilation) or develop these schemas so they can incorporate novel information (accommodation). He also delineated four stages as essential to a child’s development of specific cognitive skills: the sensorimotor, preoperational, concrete-operational, and formal-operational stages. His theory has been shown to have shortcomings, however, which explain why it is not the dominant theory of intellectual development today. First, it has focused on only scientific and logical thought processes and, second, he assumed that children of younger ages could not perform certain mental tasks, which later research has shown they could in fact accomplish.

In contrast to Piaget’s theory of cognitive development that focused on individual’s abilities, Vygotsky (1978) proposed a theory that emphasized the importance of the social environment in facilitating cognitive development. He argued that children’s intellectual development was largely impacted by their interactions with others through such constructs as the zone of proximal development, which has described the difference between what one can learn with and without the aid of others. Feuerstein, Rand, Hoffman, and Miller (1980) later drew on this theory to emphasize what he called mediated learning in which a child learns to understand the world by drawing on the mediated experience provided to him or her through a parent figure.

Measuring Intelligence

The typical test we use today to measure intelligence has been developed from a prototype originally created by Binet and Simon (1905), which became known as the Stanford-Binet test and which generates an intelligence quotient (IQ) score. Other tests, such as the Wechsler Adult Intelligence Scale (WAIS), generate an IQ score as well as separate IQ scores for certain subtests such as verbal, math, and spatial reasoning. The IQ score
originally represented a ratio of mental to physical age multiplied by 100. Today’s IQ scores, in contrast, have been based on statistical distributions and reflected where an individual ranks in comparison to other individuals within the same age group. Since the development of IQ tests, society has learned to label children as either gifted, average, or mentally retarded on the basis of their IQ scores. The fault in this system has rested in the perception that a child’s adult success can be predicated on the basis of a single IQ score. Further, it has been disputed whether IQ can even measure the numerous variables that would define “giftedness.” Finally, the significance of IQ scores for individuals has varied based on external variables and, consequently, the test has not always been seen as a valid measurement of “giftedness.”

**Influence of Trauma on Cognitive Functioning**

Many studies have been devoted to analyzing the effects of trauma specifically on cognitive intelligence. Although some studies have indicated that trauma negatively influences cognitive intelligence, other studies have indicated the opposite effect. Studies that have found an association between traumatic life events and cognitive intelligence have generally found lower cognitive functioning to be associated with posttraumatic stress disorder (PTSD). For example, a study by Vasterling, Brailey, Constans, Borges, and Sutker (1997) has found that veterans of the Gulf War with diagnosed PTSD scored lower on both the verbal and total IQ scores from the revised Wechsler Adult Intelligence Scale than did veterans without PTSD. Silva, Alpert, Munoz, Singh, Matzner, and Dummit (2000) have reported similar findings in children. Specifically, they have found that children without PTSD scored higher on the revised Wechsler Intelligence Scale for Children than did those with PTSD.
On the other hand, studies such as Sutker, Uddo-Crane, and Allain’s (1991) analysis of the cognitive intelligence of war prisoners as measured by the same IQ test have disputed the findings which have indicated a negative relationship between cognitive intelligence and PTSD. That is, Sutker et al.’s study has shown that IQ scores could not accurately predict the presence of PTSD in individuals who had suffered the trauma of being a prisoner of war. This finding has been corroborated by a study conducted by Macklin, Metzger, Litz, McNally, Lasko, Orr, and Pitman (1998), which assessed the IQ of individuals pre- and post-combat and found no association between PTSD and IQ scores.

Similar findings that trauma and intelligence are unrelated have been shown with respect to the particular influence of mother loss on intelligence. According to studies headed by Tizard and Hodges (1978) on the intelligence of children brought up in institutions from birth until age 8 years, “personal mothering (although important for other aspects of development) was largely irrelevant for cognitive growth” as determined by IQ scores (Rutter, 1979, p. 284).

Although many studies have found that children with a traumatic childhood experience such as parental loss are more vulnerable to later life psychological problems, other studies have found positive associations with childhood trauma. For example, Roe (1952) has found that “among scientific and artistic geniuses, bereavement in childhood is fairly common” (Tedeschi, Park, & Calhoun, 1998, p. 52). Counted among her many examples was René Descartes,’ whose mother died when he was one-year-old, and Blaise Pascal whose mother died when he was three-years-old. Roe’s findings were based on the lives of some of the earliest scientific geniuses and, of course, they were predominantly men due to the politics of the times. However, this is not to say that maternal loss can lead to scientific or creative genius only in men.
In response to such findings, theorists have proposed several explanations as to why childhood trauma might be associated with higher cognitive achievement in adulthood. One suggestion has been that “highly stressed children who happen to be very intelligent have the option of fleeing into creative or scientific endeavors in order to escape the painful experiences that other children may not have” (Tedeschi et al., 1998, p. 53). This theory has been applied only to innately intelligent children with the capacity to redirect their intelligence in ways that helped them better cope with trauma.

It has also been suggested that trauma can help build intelligence. “Hartman… suggested that the ability to see things differently from other people and to regress when warranted, in the service of the ego, is almost a requirement for those who become scientific or creative eminents” (Tedeschi et al., 1998, p. 53). However, these theories have often argued that “…social isolation in childhood is a contributory factor in the ‘psychological world’ of a scientist” (Woodward, 1974, p. 266), indicating that traumatic childhood events can only lead to scientific or creative genius when facilitated by some emotional or psychological regression. This theory, I believe, requires further investigation and, as I will later show, has been directly contradicted by research on the effect of childhood trauma on emotional intelligence.

Background on Theories of Emotional Intelligence

Mayer and Salovey (1990) have expanded on Thorndike’s (1920) theory of social intelligence, which had been investigated by various scientists in the context of different models of intelligence. One important theory of social intelligence, introduced by Cantor and Kihlstrom (1985), has described social intelligence as the cognitive basis for personality. However, Cantor and Kihlstrom’s theory, as well as other theories on the problem of social intelligence, were scattered and lacked a guiding framework. Further, Mayer and Salovey
(1990) have recognized that “traditional views of social intelligence [might] take on manipulative connotations, because they omit consideration of one’s own and others’ emotions that may guide conduct in a more prosocial fashion” (p. 187).

To remedy the problems they saw in theories of social intelligence, Salovey and Mayer (1990) have carved a subgroup of social intelligences that they chose to call *emotional intelligence*. They defined emotional intelligence as “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (p. 189). Thorndike’s early research had noted the difficulty of measuring social intelligence, and consequently Mayer and Salovey directed their attention particularly to developing a scaled measurement, such as the IQ test, which could be used to determine people’s actual emotional intelligence. However, the test had to differ from typical IQ tests because of the likelihood that emotional information was processed differently than cognitive information and, thus, required different skills than those measured with a standard cognitive IQ test.

Mayer and Salovey’s work did not gain the attention it deserved until the publication of Goleman’s (1995) book, “Emotional Intelligence,” which brought Mayer and Salovey’s ideas to the public eye. Mayer and Salovey developed conceptual mental processes relating to emotional information including: *appraising and expressing emotions in the self and others; regulating emotion in the self and other;* and *using emotions in adaptive ways*. Their model was unique in its ability to address “individual differences in processing styles and abilities” (Mayer & Salovey, 1990, p. 191). These differences were important to note because “first, there has been a century-long tradition among clinicians recognizing that people differ in the capacity to understand and express emotions” and also “such differences may be rooted in
underlying skills that can be learned and thereby contribute to peoples’ mental health” (p. 191).

According to Mayer and Salovey (1990), emotions can be appraised and expressed in oneself and others through verbal means, such as by the use of language, or nonverbal means, such as by the use of expression and body language. Various tests have been created to measure these types of abilities. Such tests have pointed to distinct attributes that lead to differences in individuals' nonverbal perceptions of emotion. For example, artists have demonstrated a higher capacity than scientists at nonverbal perception of emotion. Similarly, women have been found to be better at recognizing facial expressions than men; the exception to this rule was anger perception, which men were equally as good at interpreting.

It is also interesting to note that an association has been found between emotional appraisal and expression and empathy, namely, “the ability to comprehend another’s feelings and to re-experience them oneself” (Mayer & Salovey, 1990, p. 194). The connection between emotional abilities and empathy has important implications for the understanding of emotional intelligence. First, empathy in an individual is a strong indicator of emotional intelligence and, second, empathy helps people relate and communicate with one another. Consequently, empathy is associated with social support, which in turn is positively related to the degree of satisfaction individuals find in life and negatively related to their levels of depression and anxiety. Various scales have been created to measure empathy. Mayer and Salovey’s (1990) research has indicated that these tests may measure “not only one’s ability to feel toward others, but general access to one’s own feelings as well” (p. 195).

Regulation of emotion is the final element, aside from appraisal and expression of emotion in one’s self and in others, that highly determines one’s emotional intelligence. Emotion is often displayed through moods, which individuals experience reflectively as well
as directly. Individuals have the ability to regulate their moods both unconsciously and consciously. For example, when faced with a tragedy, an individual is unconsciously overcome by a sad mood. He or she does not choose to feel sad but simply feels so without thought. However, people’s reflective meta-experiences of mood help them conceptualize what moods mean and determine which moods are typical and understandable in varying circumstances. In this way, the meta-experience of mood allows individuals to think about their moods in the immediate context in which they feel and evaluate their moods according to pre-constructed rules. Subsequently, individuals can make changes to their moods if their moods do not match what normative rules dictate they should feel. The power an individual feels at being able to control his or her mood helps alleviate the degree to which a negative mood creates turmoil for an individual. Because individuals learn to associate certain moods with specific behaviors, they can use those behaviors to elicit particular moods on demand. They can also regulate their moods by choosing to associate with particular people.

Individuals attempt to maintain positive moods and prevent negative moods by finding information that encourages a positive perception of self.

In addition to the regulation of one’s own emotions, emotional intelligence has incorporated the regulation of others’ emotions. That is, there are varying ways in which individuals regulate others’ emotions. For example, according to Wasielewski’s theory of charisma, leaders act in ways that encourage their followers to trust and follow them (Mayer & Salovey, 1990). The specific behaviors and actions in which an individual chooses to engage is often pre-determined and selected particularly because these behaviors will elicit a desired response from another individual. Most frequently, people regulate the emotions of others to influence the impressions they leave on these others. The ability to regulate others’
emotions can, of course, be used antisocially in which case the regulation is used manipulatively to harm others.

Emotional intelligence has also measured the extent to which people are able to use their emotions to facilitate problem solving. Emotions can aid in problem solving in the following ways:

First, emotion swings may facilitate the generation of multiple future plans.
Second, positive emotion may alter memory organization so that cognitive material is better integrated and diverse ideas are seen as more related. Third, emotion provides interrupts for complex systems, “popping” them out of a given level of processing and focusing them on more pressing needs…
Finally, emotions and moods may be used to motivate and assist performance at complex intellectual tasks. (Mayer & Salovey, 1990, p. 198-199)

The ability to regulate emotions to solve problems as well as the previously mentioned abilities to appraise and assess emotions in one’s self and others each involve emotional processing and are necessary for an individual to function adequately on an intellectual level.

These latter points have indicated that the emotional intelligence framework created by Salovey and Mayer is applicable to daily life. The necessity of having a framework in which emotional intelligence can be understood and further studied has been made clear by the fact that emotional intelligence can directly influence positive mental health and that a lack of emotional intelligence can directly cause serious adjustment problems. Of particular interest has been that people’s failures to recognize emotions inhibit them from planning their lives in ways that encourage the positive emotions and prevent the negative emotions. Consequently, these individuals may suffer depression throughout their lives.
Influence of Trauma on Emotional Intelligence

There has been a lack of academic research on the relationship between trauma, specifically that caused by childhood maternal loss, and emotional intelligence. However, the connection between the two has slowly gained recognition as researchers have broadened their interests so that now, rather than studying only the negative outcomes of childhood trauma, they have turned their attention also to the positive outcomes of trauma through resiliency and, more recently, posttraumatic growth. The purpose of these studies has been to learn how and why some people “not only bounce back from trauma, but use it as a springboard to further individual development or growth, and the development of more humane social behaviors and social organization” (Tedeschi et al., p. 1).

Although the concept of posttraumatic growth has been relatively new to the scientific arena, religion and literature have emphasized its importance by “explaining the role of human suffering in bringing people closer to wisdom, truth, and God” (p. 3). This notion has been ingrained in diverse cultural traditions that span back to the earliest biblical and mythological stories of humankind. One example has been the common mythological story that exists in Egyptian, Greek, and Oriental cultures about the great and only phoenix that never really dies. When it ages, it builds a nest in which it is engulfed by flames only to be reborn from its ashes. This theme has also been conceived of philosophically by Nietzsche and Kierkergaard “who described the usefulness of suffering for personal development” (p. 4).

Posttraumatic growth studies (e.g., Tedeschi & Carson, 1996; Tedeschi et al., 1998) have shown that trauma, such as that caused by parental loss, have the capacity to be used advantageously. This is not to say that, for some people, trauma does not cause many negative conditions such as depression and anxiety. Rather, the idea has been that an
individual is capable of proactively using his or her emotional distress that inevitably accompanies traumatic loss to rebuild a better life from the ruins of his or her life prior to the trauma—similarly to how the aged phoenix is reborn youthful from its ashes. Some of those who have suffered trauma “appreciate their newly found strength and the strength of their neighbors and their community. And because of their efforts, individuals may value both what they now have, and the process of creating it although the process involved loss and distress” (Tedeschi et al., p. 2).

Posttraumatic growth has not been seen merely as a coping mechanism: it fundamentally changes an individual in ways that benefit that individual’s cognitive and emotional life. Many of the leading theorists dealing with posttraumatic growth have conceptualized it as “the antithesis of posttraumatic stress disorder, emphasizing that growth outcomes are reported even in the aftermath of the most traumatic circumstances, and even though distress coexists with this growth” (Tedeschi et al., p. 3).

Reports generated from trauma survivors have also led researchers to agree on certain statements that describe types of posttraumatic growth. These statements have been employed to create a posttraumatic growth inventory to scale the degree to which a person is positively coping with trauma in its wake. It is interesting that, among the collection of statements on the inventory, many are related to emotional intelligence. Some examples include: “I have a greater sense of closeness with others,” “I am more willing to express my emotions,” “I have more compassion for others,” and “I put more effort into my relationships.” A fundamental area of growth that these statements address is how individuals relate to others and how they learn to understand themselves better, elements that are the very essence of emotional intelligence.
Despite the obvious connection among trauma, posttraumatic growth, and elements of emotional intelligence, there has been almost no research that directly investigates the relationship between trauma and emotional intelligence, let alone research that specifies the type of trauma. The studies on posttraumatic growth and resiliency, however, have evidenced that investigating the relationship among different types of trauma, including maternal loss, and emotional intelligence might be very useful. If we could discover what specific characteristics help an individual achieve posttraumatic growth rather than descend down a destructive path in a state of depression and anxiety, we could learn how to instill these characteristics in individuals to prevent the latter from happening so often. Thus, against this backdrop, the present investigation hypothesizes that, relative to women who did not experience maternal loss in childhood or adolescence, those who did so will score higher on measures of emotional intelligence. These and other relationships are examined in the following study.

Method

Participants

Thirty-seven women (M age = 35.9 years) participated. The mean age at which they had experienced maternal loss was 12.2 years. Thirty-three (89.2%) lost their mothers to illness, 3 (8.1%) to suicide, and 1 (2.7%) to an accident. Twelve participants (32.4%) had advanced degrees (masters or above) in fields ranging from social work to accounting. Further, 91.9% were Caucasian, 2.7% were Latino, 2.7% were Asian, and 2.7% were unspecified. With respect to birth order among the 29 participants with siblings (78.4%), 37.8% were first born, 10.8% were middle born, and 29.7% were last born.
Procedure

To identify potential participants, I contacted Hope Edelman, author of “Motherless Daughters,” for advice on where to find participants. She directed me to her website, which listed some of the more well-known motherless daughters support groups in the country and encouraged me to get in touch with the facilitators of these groups whose contact information was also listed. I then contacted several different support groups including ones located in Los Angeles, Orange County, Chicago, Minnesota, New York, Wisconsin, Colorado, and Arizona and spoke with the group leaders. These leaders sent out word about my project to the members of their regional groups along with my contact information so that women who wanted to participate could contact me for further information.

I also made contact with the group leaders of online motherless daughters support groups that I found listed on the Meet-up and Yahoo Groups servers. These sources provided me with the contact information of additional group leaders from which I chose to contact those heading the groups with the most members including ones in California, New York, Georgia, Massachusetts, Illinois, Texas, Minnesota, Arizona, Oregon, Missouri, Washington, and Pennsylvania. Just as the group leaders listed on Edelman’s website, the directors of the online support groups agreed to send an e-mail about my project to women on their listserv and post notifications on their bulletin boards asking those who were interested in participating to contact me.

The women who subsequently expressed an interest in participating were sent an e-mail describing the project and its participatory criteria (i.e., currently at least 19 years of age with maternal loss occurring at age 19 years or earlier) along with a letter of informed consent. After providing this consent, the women were directed to three tasks by links copied into the e-mails, namely, the Mayer-Salovey-Caruso Emotional Intelligence Test
(MSCEIT), the Bar-On Emotional Quotient Inventory (EQI), and a background questionnaire designed expressly for this study. They were asked to complete these tasks in the order listed above.

The e-mail also informed participants about my interest in interviewing women after they had completed the online tasks and gave them the option of contacting me if they wanted to participate in an interview. Finally, although some of the women who contacted me did not meet the participation criteria, I encouraged all the women to continue spreading word about my project to anyone they thought might be interested and, in this way, reached out to women who were not necessarily members of any support group.

Six women, from different support groups and with different backgrounds, were interviewed to provide me with case studies to help frame the results generated from the emotional intelligence tests and the questionnaire. The interviews were conducted over the phone because the geographical distance made it too difficult to meet in person. Permission was obtained from each interviewee to be recorded so that I could refer back to the conversations at a later date. The interviews were informal and included a combination of open-ended and directed inquiries. Specifically, I asked each woman to tell me about her life prior to the loss of her mother, the death and its immediate aftermath, and her life after the loss. As each woman related her story to me, I intervened at particular points when I felt I could gain insight from her elaboration and posed questions to ensure that she touched on relevant topics. After each finished recounting her story, I asked if she could find any positive ways that her mother's death had contributed to her development and present life. Finally, I concluded the interviews by asking each woman for feedback regarding the online tasks she had previously completed.
Materials

The following tasks were administered:

*Background questionnaire.* This questionnaire included questions on the participant’s: age; race/ethnicity; number of siblings; birth order; level of education; current occupation; past occupations; volunteer activities; age at mother’s death; length of time since mother’s death; cause of mother’s death; mother’s education; father’s education; mother’s occupation; father’s occupation; quality of relationship with mother prior to her death; quality of relationship with father prior to mother’s death; quality of relationship with father following mother’s death; living situation after mother’s death (e.g., introduction of housekeeper, living with alternative caregiver); father’s remarriage and relationship with stepmother (if applicable); family’s financial status prior to mother’s death; family’s financial status following mother’s death; available social supports; open family communication about mother’s death; therapy after mother’s death; family history of mental illness; other family deaths; current marital status; age at marriage; marriage decision affected by mother’s death; number of children; decision about children affected by mother’s death; number and gender of close friends; positive outcomes of mother’s death; definition of cognitive intelligence; definition of emotional intelligence; rating of their cognitive intelligence (from 1 = *not at all cognitively intelligent* to 10 = *extremely cognitively intelligent*); and rating of their emotional intelligence (comparable 1-10 scale).

Outside of the last two ratings, the majority of questions were posed in terms of two dichotomies (yes-no). For others that provided at least several choices, median splits were employed to create dichotomies (e.g., age at mother’s death was coded as 12 years or younger vs. 13 years or older). These groups were then employed as predictor variables in subsequent analyses (below).
Personality assessment. The questionnaire included Costa and McCrae’s (1992) five-factor personality assessment. Specifically, it asked participants to rate how true 25 characteristics (e.g., sympathetic, organized, assertive) were of them on a scale from 1-5 with 1 = *Not at all true of me; I am almost never this way* to 5 = *Very true of me; I am very often this way*. Collectively, the responses provided measures of five personality dimensions: *Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism* (OCEAN). For purposes of analysis, median splits were employed to determine those high versus low on the five characteristics.

Posttraumatic growth inventory (PTGI). The study also employed a Posttraumatic Growth Inventory (Tedeschi & Carson, 1996), which included 21 statements (e.g., “I changed my priorities about what is important in life,” “I put more effort into my relationships”) regarding changes in thinking and behavior caused by, in this case, the experience of mother loss during childhood. Participants were asked to rate how true these statements were of themselves on a scale from 0 = *I did not experience this change as a result of my mother's death* to 5 = *I experienced this change to a very great degree as a result of my mother's death*. The task resulted in five major outcome measures used in subsequent analyses, namely, PTGI Total Score, PTGI1 (Relating to Others Score), PTGI2 (New Possibilities Score), PTGI3 (Personal Strength Score), PTGI4 (Spiritual Change Score), and PTGI5 (Appreciation of Life Score).

Wechsler Adult Intelligence Scale—Third Edition (WAIS-III) Vocabulary subtest. As part of the questionnaire, participants were asked to define 32 words of increasing difficulty from “bed” to “tirade.” Each correct answer was allotted two points and partial credit (one point) was also awarded according to the WAIS-III criteria. Raw scores were then converted to standard scores and multiplied by 10 to obtain a proxy measure of Full Scale IQ (FSIQ). Wechsler has reported that the correlation between Vocabulary and FSIQ is .84.
Mayer-Salovey-Caruso (1997) Emotional Intelligence Test (MSCEIT). The MSCEIT was derived from the Multifactor Emotional Intelligence Scale (MEIS). It consists of 141 items that yield a Total emotional intelligence score, two Area scores, and four Branch scores (7 outcome measures used in subsequent analyses). The Area scores assess Experiential Emotional Intelligence and Strategic Emotional Intelligence. The former is “an index of the respondent’s ability to perceive emotional information, to relate it to other sensations such as color and taste, and to use it to facilitate thought” (Mayer, Salovey, & Caruso, 2002, p. 17). The latter “provides an index of the respondent’s ability to understand emotional information and use it strategically for planning and self-management” (p. 17). The Branch scores include the following: Perceiving Emotions; Facilitating Thought; Understanding Emotions; and Emotional Management.

Bar-On (1996) Emotional Quotient Inventory (EQI). Participants were also administered the EQI. Unlike the MSCEIT, the Bar-On test “relates to potential for performance rather than performance itself…it is process-oriented, rather than outcome-oriented” (Bar-On, 2002, p. 3). The test consists of 133 items using a 5-point response set ranging from Not or very seldom true of me to True or very often true of me. It provides an overall EQ score as well as scores for the following 5 composite scales and 15 sub-scales. Intrapersonal scales are self-regard, emotional self-awareness, assertiveness, independence, and self-actualization. Interpersonal scales are empathy, social responsibility, and interpersonal relationship. Adaptability scales are reality testing, flexibility, and problem solving. Stress management scales are stress tolerance and impulse control. General mood scales are optimism and happiness. The overall score and the five composite scores were used as outcome measures in subsequent analyses.
Statistical Analysis

The quantitative parametric data collected from the online inventories were analyzed with a variety of techniques including: Pearson product-moment correlation coefficients; multivariate analyses of variance (MANOVAs) on the major outcome variables (5 PTSI scores, 7 MSCEIT scores, 6 EQI scores) with dichotomous groupings (e.g., younger vs. older) as predictor variables followed by the appropriate univariate $F$ tests; and one-sample $t$-tests comparing data from our sample to those from normative samples. Further, the qualitative interview data were employed to develop two case studies: one demonstrating the ways in which early maternal loss can heighten emotional intelligence and a second illustrating the ways it can impede emotional intelligence.

Results

Correlations among Major Outcome Measures

In accordance with previous literature, the correlations among the major outcome measures for the sample as a whole were in line with expectation. For example, although cognitive intelligence was unrelated to the EQI total score, $r(37) = .07$, n.s., it was positively correlated with but not identical to the MSCEIT total score, $r(37) = .37$, $p < .05$. In line with this, the correlation between participants’ ratings of their cognitive and emotional intelligences was also in the expected direction although non-significant, $r(37) = .08$. Further, the MSCEIT total score was positively correlated with all of its subscales, the EQI total score with its subscales, and the PTGI total score with its subscales (see Table 1). This demonstrated the high internal validity of the three major outcome tasks, which supported the notion that our participants took completing the tasks seriously.
Long-term Positive Aspects of Maternal Loss

For the sample as a whole, 30 of 37 participants (81.1%) identified positive long-term aspects of maternal loss. These aspects included: (a) increased empathy for others; (b) greater appreciation for life; (c) spiritual development; (d) increased personal strength; (e) independence; (f) determinism; and (g) new opportunities in which to contribute to society and help others.

Correlations between Posttraumatic Growth and Emotional Intelligence

In line with our hypothesis, there were numerous significant correlations between posttraumatic growth and emotional intelligence measures. Most notably, the PTGI total score was positively correlated with both the EQI total score, $r(37) = .35, p < .05$, and the MSCEIT total score, $r(37) = .28, p < .05$. Thus, our participants as a whole clearly demonstrated that the greater their posttraumatic growth, the higher their emotional intelligence.

Differences between Subgroups in Posttraumatic Growth and Emotional Intelligence

A MANOVA on the major PTGI (5), EQI (6), and MSCEIT (7) outcome measures indicated a significant main effect for age (34 years and younger vs. 35 years and older), Wilk’s Lambda = 3.47, $p < .01$. Univariate F tests indicated that, on the BARON, older women ($M = 105.3$) scored higher on the Interpersonal Scale than younger women ($M = 96.9$), $F(1, 35) = 4.58, p < .05$, and, on the MESCEIT, older women scored higher than younger participants on both the Managing Emotions Branch score ($M = 102.4$ vs. 94.8), $F(1, 35) = 7.13, p < .01$, and the Strategic Emotional Intelligence Area score ($M = 102.6$ vs. 94.6), $F(1, 35) = 6.86, p < .01$.

Additional MANOVAs also yielded trends as follow. First, there was a trend for age at maternal loss (12 years or younger vs. 13 years or older), Wilk’s Lambda = 1.96, $p < .08$. Relative to women who experienced maternal loss at a younger age, those who experienced the loss at an older age scored higher on all six PTGI measures. Second, there was a trend
for time since maternal loss, Wilk’s Lambda = 2.14, \( p < .06 \). Relative to those women whose loss occurred 21 years ago or less, those whose loss occurred 22 years ago or more scored higher on the MSCEIT Understanding Emotions, Managing Emotions, Strategic Emotional Intelligence, and Total Emotional Intelligence scores. Third, there was a trend for siblings from the same mother, Wilk’s Lambda = 1.84, \( p < .10 \). Relative to those women without a sibling from the same mother, those with siblings from the same mother scored higher on the MSCEIT Managing Emotions and Strategic Emotional Intelligence scores. Fourth, there was a trend for number of siblings, Wilk’s Lambda = 1.84, \( p < .10 \). Relative to those women with no siblings, those with at least one sibling also scored higher on the MSCEIT Managing Emotions and Strategic Emotional Intelligence scores. Fifth, there was a trend for marriage, Wilk’s Lambda = 2.12, \( p < .06 \). Relative to married women, unmarried women scored higher on New Possibilities (PTGI) and Stress Management (MSCEIT); relative to unmarried women, married women showed a trend toward higher scores on Understanding Emotions (MESCEIT) and Strategic Emotional Intelligence (MSCEIT).

In contrast, MANOVAs yielded no significant differences related to: birth order; level of education; current volunteer activities; family history of mental illness; other deaths in the family; decision to marry influenced by maternal loss; decision to have children influenced by maternal loss; presence of children; presence of social support post maternal loss; presence of close friends post maternal loss; positive living situation post maternal loss; presence of nanny post maternal loss; remarriage of father; presence of stepmother; family financial change post maternal loss; open communication with family members post maternal loss; relationship with mother pre loss; relationship with father pre loss; relationship with father post loss; presence of therapy post loss; length of therapy post loss; openness to experience; conscientiousness; extraversion; agreeableness; and neuroticism.
Differences between Our Sample and Normative Samples in Emotional and Cognitive Intelligence

Contrary to expectation, our sample as a whole did not surpass and/or show any significant differences from normative samples (M normative sample = 100) on any of the seven MSCEIT outcome measures. Further, our sample scored significantly lower on 5 of 6 EQI outcome measures (M normative sample = 100 vs. Total Score = 89.1, Intrapersonal = 88.8, Stress Management = 91.2, Adaptability = 90.0, General Mood = 91.4) with the exception of the Interpersonal Scale (M = 101.2) on which there was no significant difference. However, our sample far surpassed the normative sample (120 vs. 100) on the proxy measure of cognitive intelligence, namely, WAIS-III Vocabulary, \( t(36) = 4.98, p < .001 \).

Case Studies

Case study 1. Betty Jenkins\(^1\) exemplifies many of the positive effects of maternal loss on emotional intelligence. Betty was 7-years-old when her mother was first diagnosed with leukemia and given, at most, five years to live. However, Betty was not told about her mother’s prognosis and, even when her mother became increasingly ill and required hospitalization, she was still only told that her mother was sick with the flu. Betty did not know her mother was seriously ill until after she died.

Looking back on her childhood, Betty recognizes now that her mother’s prognosis influenced much of her behavior. For example, Betty remembers her mother constantly showing her how to do housekeeping tasks such as cooking and cleaning and assigning her numerous chores even at a very young age. Now, she realizes that her mother must have felt an enormous burden to make sure that Betty would be prepared to take on these responsibilities after her death. Indeed, after her mother died when she was 13-years-old,\(^1\)

\(^1\) Name has been changed to protect participant’s confidentiality
Betty became her father’s caretaker. When her mother died, her father told her about it and gave her a quick hug. She cried and then went to make dinner and the subject was never spoken of again.

The responsibility left to Betty to care for her father interfered with developing her own life. Her father never wanted her to participate in after-school activities or, later on, to go to a college that was far from home because he relied on her to run the house. Aside from the additional responsibility of caring for her father, she was forced to go blindly on her own through adolescence, although she mentioned that the mothers of two of her high school friends provided some support for her, even going so far as to make Betty’s first homecoming dress.

The dominant word that Betty used to describe how she felt after her mother’s death was “numb.” She could not talk to her father about her mother’s death and, even though she had many friends, they did not understand how she was feeling or they did not want to talk about it. She described thinking something was wrong with her: she blamed herself for many things and did not know how to let go of the guilt. For example, she expressed a desire to have known that her mother was sick earlier. She reported that she would have done many things differently had she known. She regrets telling her mother that she hated her out of anger when she was nagged to do chores. It was particularly difficult for her to look back at these moments and imagine what it was like for her mother knowing that she was going to die. In the aftermath of her mother’s death, she felt overwhelmed by her guilt but, because she never had anyone to talk to; nobody could assure her that everything she was feeling was normal. She wishes now that she had been forced to see a therapist when she was a child but, in her father’s efforts to keep up appearances, it would never have been allowed.
Betty is now 50-years-old. In the years following her mother’s death, she received her M.B.A. and worked in finance. She married when she was 27-years-old, before which she was constantly in relationships, seeking nurturance and physical contact. Since being married, she and her husband have created a wonderful and secure life together. However, despite all rationality, she still does not feel emotional safety in her marriage: her early life experiences have made her fear that those who she loves will simply disappear. She and her husband have two children who are now in college and living away from home. After the birth of her son, her second child, she stopped working to be a stay-at-home mom. Betty acknowledged that her experience of losing a mother influenced how she raised her children. She wanted to be there for them and support them and, contrary to how her parents were with her, she is very open with her children. The loss of her mother most significantly influenced how she raised her daughter. Only after her daughter was slightly older did she realize that she had raised her daughter as “mommy’s helper.” Without recognizing it, she treated her daughter similarly to how she had been treated by her mother, that is, as a grown up before she actually was one.

However, in spite of the negative effects of her mother’s death, Betty recognizes that it has also benefited her in several ways. Losing her mother forced her to grow up extremely quickly. She became an adult before she even had a chance to be a child. However, as a result, she learned invaluable tools that she has used throughout her life, particularly how to care for people and run a home. She reported that the experience made her much more independent throughout her life and more confident in her ability to overcome obstacles. Most important, she noted that the experience has made her more empathic and sensitive to others and it has made her appreciate life and its nuances more so than she would have had she not experienced tragedy at such a young age.
Although Betty’s story does not highlight as many of the positive influences of maternal loss as some of the others I obtained during the interview process, I specifically chose her as an example because of the impression she made on me during our conversation. Her genuine warmth and sincerity was striking to me. Her sensitivity and kindness radiated from her even across a phone wire. Though I had sensed it from very early on in our conversation, she proved this sensitivity to me in reaching out to me to ask me about my own mother. For someone who grew up in a family that, as she describes, had a mentality that focused on work and functioning rather than personal connections, I find it exemplary that she learned to be so caring. She represents a person who, in spite of traumatic childhood events, was able to develop a very strong ability to understand, relate to, and care for others, which is exactly what I sought to investigate through this study.

Case study 2. Dorothy Ludlow\(^2\) is a 21-year-old college student at Brown University. In contrast to Betty who illustrates the positive influence of maternal loss on emotional intelligence, Dorothy exemplifies the negative impact maternal loss can have on emotional intelligence. Dorothy’s mother died from breast cancer when she was 4-years-old and her brother was 2-years-old. She remembers little about her life before her mother died; however, she vividly remembers her father telling her that her mother died, saying “Mommy might die” even though she already had passed away. Dorothy grew up with her brother and her father who never remarried and who took on the role of disciplinarian as opposed to nurturer. She reported that nobody discussed her mother’s death as she was growing up. Her father and brother never spoke about her mother and her maternal grandparents would only speak about her mother’s life prior to any illness rather than about her death. Though

\(^2\) Name has been changed to protect participant’s confidentiality
Dorothy wanted to discuss her mother in more detail and more frequently, she suppressed these urges in order to avoid upsetting her family.

Dorothy discussed many ways in which she thought her early mother loss stunted her development of emotional intelligence. Living with only her brother and father, she had no prominent female figure in her life to uphold as a role model. Consequently, she reported that she never learned how to interact with women. Growing up, she had many male friends and boyfriends but she never made close girl friends. Although she sought intimacy and nurturance in her relationships with men, she never learned how to be affectionate with women. Because she never trusted or relied on women in her life, she has never wanted women to expect anything from her. When they do, she thinks that she often disappoints them because of her extreme selfishness. As a result of losing her mother at such a young age, she became needy of attention and care from others but never learned to reciprocate in caring for others.

Unlike most participants, Dorothy was one of the few who specifically noted that she has absolutely no desire to take care of people whether it is friends, children, or even pets. Though she described herself as someone who can relate to anyone and who is good at understanding what people need, she is unable to give of herself to accommodate others. She described her brother as a very moral person who is much better than she is at caring for people. Dorothy also noted that, as she was growing up, she was motivated to do the opposite of whatever her brother did and that it might be for this reason that she never strove to act in a caring way toward people.

Dorothy is soon to be a senior at Brown where she studies art. She admitted that the fact that her mother also attended Brown was a major influence in her choosing to go to Brown. Her mother was also an artist and Dorothy discussed the fact that her innate artistic
talents give her great joy because they make her feel connected to her mother. Aside from her artistic abilities though, she has been told that she is much more like her father and that her brother takes after their mother. From what she knows about her mother, she described her as particularly kind, caring, and emotionally intelligent. She believes that, had her mother lived, her mother would have helped instill these missing characteristics in her.

Discussion

For the most part, the findings from the present investigation are in line with expectation. That is, results suggest that there may be some positive long-term benefits to the childhood trauma of maternal loss. Within our sample, the majority of women are able to identify such long-term positive aspects including increased empathy, spirituality, personal strength, independence, and determinism as well as a greater appreciation of life and of new opportunities to contribute to society. Further, the quantitative data suggest that posttraumatic growth is positively associated with emotional intelligence. Thus, the present study contributes to the increasing body of research that documents the potentially positive, as well as negative, impacts of trauma on human functioning and extends those findings to the areas of both maternal loss and emotional intelligence.

Unexpectedly, the study also demonstrates that the sample of women employed here is more cognitively intelligent than women in normative samples. In hindsight, this may not be so surprising in light of the increased determinism and drive many women report as a long-term positive aspect of their mothers’ deaths. Further, other women in the study mention a deep longing for their mothers to be proud of them so that perhaps they seek to attain their mothers’ approval through education and/or to gain their (in earlier grades, usually female) teachers’ approval as a substitute for their mothers.’ Finally, another possible explanation is that, after losing their mothers, some may attempt to ignore their loss by
focusing on other areas of their lives, particularly their school lives; in our sample, some women describe their increased involvement in school and school related activities as a means of avoiding being home and/or facing their grief. Such possibilities appear worthy of further empirical study and suggest that future studies should consider the effects of trauma on both cognitive and emotional development.

Aspects of our findings that are not in line with expectation deserve some speculation. First, we do not find that our sample scores higher than normative samples on measures of emotional intelligence as predicted; in fact, they score lower on the majority of EQI scales. This may be related to the notion that women in the normative samples also experience traumas that are not assessed and/or that, as human beings, we all experience trauma or at least “defining events” that impact our emotional functioning. That our sample scores lower than normative samples on the EQI scales that assess intra-psychic functioning (e.g., Intra-personal, Stress Management, Adaptability, General Mood) but not on the scale that examines interpersonal functioning suggests that early maternal loss may be associated with more internal distress. Such distress, not assessed in the present study, should be examined in future research through the use of instruments such as the Beck Depression Inventory, the Brief Symptom Inventory, and the like.

Second, in contrast to prior work suggesting that variables such as open family communication following maternal loss, a positive living situation post loss, and general social support are mediating factors in adaptation to this particular trauma, the present study does not find differences in posttraumatic growth or emotional intelligence related to these variables. Instead, we find rather intuitively that age/length of time since the trauma and the presence of siblings (particularly ones from the same mother) are related to increased posttraumatic growth/emotional intelligence. There may be several reasons for the
differences between our study and previous work including that: some previous work has
been generated from within clinical rather than research contexts; some prior research has
focused neither solely on women nor on emotional intelligence; and/or our sample is not
large enough to detect such differences. Thus, findings from the present study require
verification on larger samples of individuals (men as well as women), on parental loss more
generally (paternal as well as maternal loss), and by using more holistic conceptualization
(e.g., cognition, affect, values, action) for the selection of outcome measures.

Several words of caution about the present study are in order. First, much of the
sample of women employed here is obtained from internet support groups and the study
itself, for the most part (with the exception of the interviews), is administered on line.
Although internet sampling has become a relatively accepted mode of data collection in
social scientific research, it is possible that motherless women who join internet support
groups may not be representative of the larger population of women who have lost their
mothers. Second, although the present study finds relationships between posttraumatic
growth and emotional intelligence, these relations are based on correlations and do not imply
causality. Thus, future research will benefit from longitudinal studies that assess adaptation
to maternal loss beginning as close to the loss as possible. Although perhaps difficult to
conduct, future studies would benefit most from following such women pre and post
maternal loss.

Third, the sample employed here consists predominantly of white women so that
generalizations to motherless women of color (who may or may not have similar family
arrangements) cannot be made. Fourth, while the majority of our sample note positive long-
term aspects related to maternal loss, some women are not able to identify any such aspects
and continue to struggle with the loss indefinitely. This opens up the possibility that there
are individual differences in adaptation to maternal loss (e.g., see case studies) so that future research should attempt to identify these individual differences. Although the present research does not find differences in adaptation related to personality traits (Big 5), other conceptualizations of both personality and individual differences should be considered.

Fifth, the present study excludes women whose mother loss resulted from abandonment as opposed to from death. In speaking to women whose mothers abandoned them, I found that they reported some of the same characteristics of their mother loss as did the women whose mother’s had died. Thus, their perspective could contribute important and unique insights into the future study of this problem. Although the majority of the present sample consists of mother loss related to illness, mother loss related abandonment as well as suicide and/or accidents should be explored.

Finally, the present investigation has implications for humanistic healthcare. It suggests that there may be value in using conceptualization and methodology from one field (e.g., positive psychology) to advance the methodology and conceptualization of another (e.g., humanistic healthcare) and vice versa. Further, the theory and method of the present investigation, with its foci on posttraumatic growth/emotional intelligence and qualitative interview data to complement quantitative data respectively, highlight the need to avoid the medicalization of trauma and grief and suggest that we instead focus our attempts at healing, whatever the condition, on the active, thinking, feeling, valuing, striving individual.
References


Table 1

*Pearson Correlations for Total and Subscale Scores on Major Outcome Measures*

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<th>MSCEIT Total Score and Subscale Scores</th>
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<td>MSCEIT Total EI</td>
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