SOCIAL, COGNITIVE AND EMOTIONAL STRATEGIES IN THE GRIEF PROCESS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN
THE DEPARTMENT OF EDUCATIONAL SCIENCES

DECEMBER 2015
Approval of the Graduate School of Social Sciences

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ABSTRACT

SOCIAL, COGNITIVE AND EMOTIONAL STRATEGIES IN THE GRIEF PROCESS

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December 2015, 216 pages

The purpose of this study is to examine the influence of meta-mood processes, emotion regulation strategies, ruminative responses and perceptions of social constraints of bereaved individuals on their grief process. The sample of the study consisted of 708 bereaved adults, who had an experience of loss in the last five years. The Two-Track Model of Bereavement Questionnaire, Social Constraints Scale, Trait Meta-Mood Scale, Ruminative Responses Scale and Emotion Regulation Questionnaire were administered in the study with a demographic form.

Traumatic perception of death was eliminated from the study because of the high multicollinearity values, thus close and positive relationship with the deceased and conflictual relationship with the deceased were the grief related endogenous variables, while relational active grieving and biopsychosocial functioning were the exogenous variable of the study. SEM results revealed that bereaved individuals who had lower abilities in repairing their mood, higher levels of ruminative responses, and higher perceptions of social constraints had higher scores on relational active grieving. Also, bereaved individuals who had lower abilities in repairing their mood, lower levels of reappraising the situation, higher levels of ruminative
responses, and higher perceptions of social constraints had also higher scores on biopsychosocial functioning.

Overall, the results supported the hypothesized model and showed that social, emotional and cognitive backgrounds of the bereaved individuals influence their process of adaptation to the loss. In the light of the relevant literature, findings were discussed and implications for practice and research and recommendations for the further studies were presented.

**Keywords:** Grief Adjustment, Meta-Mood Processes, Emotion Regulation, Rumination, Social Constraints
ÖZ

YAS SÜRECİNDEKİ SOSYAL, BİLİŞSEL VE DUYGUSAL STRATEJİLER

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Aralık 2015, 216 sayfa

Bu çalışmanın amacı üst-duygusal süreçlerinin, duygu düzenleme stratejilerinin, ruminasyon tepkilerinin ve algılanan sosyal kısıtlanmışlığın bir yakını kaybetmiş kişilerin yaşla başa çıkma süreçlerine etkisini incelemektir. Araştırmaya son beş yıl içinde bir yakını kaybeden 708 yetişkin katılmıştır. Çalışmada İki Boyutlu Yas Ölçeği, Sosyal Kısıtlanmışlık Ölçeği, Sürekli Üst-Duygu Ölçeği, Ruminasyon Ölçeği, Duygu Düzenleme Ölçeği ve demografik bilgi formu uygulanmıştır.

Yasnın travmatik algılanması boyutu, aktif ilişkisel yaş boytusu ile yüksek çoklu doğrusallık değeri gösterdiği için çalışmadan çıkarılmıştır. Böylece kaybedilen kişiyle kurulan yakın ve olumlu ilişkiler ve kaybedilen kişiyle kurulan çatışmalı ilişkiler boylarını yasla ilgili bağımlı değişkenler olurken, aktif ilişkisel yaş ve biyopsikososyal işlevsellik boylarını çalışmanın bağımsız değişkenleri olmuştur. YEM sonuçları bir yakının kaybeden kişilerden düşük duygu iyileştirme becerisi, yüksek ruminasyon seviyesi ve yüksek sosyal kısıtlanmışlık algısı olanların aktif ilişkisel yaş puanlarının yüksek olduğunu göstermiştir. Benzer şekilde, bir yakının kaybeden kişilerden düşük duygu iyileştirme becerisi, düşük yeniden ele alma becerisi, yüksek ruminasyon seviyesi ve yüksek sosyal kısıtlanmışlık algısı olanların biyopsikososyal işlevselliklerinde sorunlar olduğunu göstermiştir.
Genel olarak sonuçlar hipotez edilen modeli desteklemiş ve bir yakınını kaybetmiş kişilerin sosyal, bilişsel ve duygusal özelliklerinin yaşla başa çıkma süreçlerini etkilediği görülmüştür. İlgili alan yazının ışığında bulgular tartışılmış, sonuçların araştırmaya ve uygulamaya katkıları sunulmuş ve ileri çalışmalarla öneriler eklenmiştir.

**Anahtar Kelimeler:** Yasla Başa Çıkma, Üst-Duygu Süreçleri, Duygu Düzenleme, Ruminasyon, Sosyal Kısıtlanılmışlık
To my mom and dear memory of my dad

&

To my better half

&

To the ships that are waited and
To those who wait for their ships to arrive to the harbor
(O gemi bi’ gün kesin gelecek!)
ACKNOWLEDGEMENTS

This thesis taught me a lot, both in terms of academic and personal life. I grew up with all the work and finally I’m at the end of my student life which took a quarter century. I learned that all thesis are literally written with blood, sweat, and tears. I learned that even the most careful and obsessed individual can make the most stupid mistakes. I learned that finishing a big work gives a big satisfaction. And I learned that writing a thesis is a process of “expecting the unexpected”. Of course these lessons found their meanings with the help of precious individuals in my life. Here, I would like to thank to them.

First of all, I would like to express my special thanks to my advisor, Prof. Dr. Özgür Erdur-Baker. During our eight-year-long study together, she taught me the most valuable personal and professional lessons. With her encouragement, guidance and support, I became who I am today. She helped me grow up and believe in myself. I would also like to thank her because of her patience towards me.

I would also like to thank to my committee members, Prof. Dr. Figen Çok, Prof. Dr. Semra Sungur, Prof. Dr. Ahmet Tamer Aker, and Assoc. Prof. Dr. Zeynep Hatipoğlu-Sümer for their time, support and valuable comments and advices.

Moreover, I would like to express my deepest appreciations for Prof. Dr. Ayhan Demir, Prof. Dr. Oya Yerin-Güneri, Prof. Dr. Ali Yıldırım, and Assoc. Prof. Dr. Hanife Akar. They helped and encouraged me with their advices and great kindness.

My knowledge on thanatology gained a lot with the help and guidance of Prof. Dr. Heather Servaty-Seib. She provided me great support and academic opportunities during my study at Purdue University. I am thankful to her for advices, patience, smiling face and support, and the comfort she provided in both my academic and personal life.
I am also thankful and indebted to TÜBİTAK for their scholarship which provided me financial support.

Of course I owe much to the bereaved ones who help me with participating in the study. I appreciate everyone who plunged in the deepest emotions and memories of their loved ones in order to help. Thank you very much, may the peace be with you and your loved ones.

I am thankful for every single person who served in the chain of coffee production through the very first discovery of coffee to the daily consumption. Without coffee stains, my model prints would be missing the art and without all those cups of coffee, this work would be meaningless.

I own my gratitude to Behzat Ç., Leyla ile Mecnun, Sherlock Holmes, Game of Thrones, How I Met Your Mother, The Big Bang Theory, ekşiözlük, Zaytung, Instagram, Pinterest, PhD comics, and 9gag. They inspired, entertained, motivated me and at the same time, gave good reasons to procrastinate.

I would like to express my deepest appreciation and special thanks to Metallica, Queen, Epica, Pearl Jam, Megadeth, Aerosmith, Led Zeppelin, Guns’n Roses, Evanescence, Korn, Dream Theater, Iron Maiden, Cradle of Filth, Forest of Shadows, Nightwish, Coldplay, Oi Va Voi, The Cranberries, Radiohead, Mor ve Ötesi, Athena, Kargo, Hayko Cepkin, Özlem Tekin, Pentagram, Pilli Bebek, Vega, Duman, Ceylan Ertem, Jehan Barbur, Aylin Aslım and many others that I could not name, for their music. Thank you all for making the hardest and most brutal songs to make me concentrate, the softest songs with your great voices to soothe me, and all the lyrics to find about myself.

Moreover, I would like to extend my thanks to my friends Gülçin Tan-Şişman, Nuray Çoban-Kaya, Nazlı Güzin Özdlil, Ezgi Beşikçi, İbrahim Tanrıku, Jale Ulaş-Marbouti, Selin Onaylı, Begüm Serim-Yıldız, Mine Muyan, Nazlı Büşra Akçabozan, Mevlüt Erden Bıçer, and Eray Damar. They helped and supported me even from the other side of the country or planet.
Thank you for your friendship and courage. Also, I would like to thank to my officemates, Ayşe Ulu-Yalçınkaya and Zehra Ünlü-Kaynakçı for providing me the best conditions to write a thesis.

My life would be so boring and empty without my dearest friends, Rahime Çobanoğlu, Gülçin Gülmez-Dağ, Çiğdem Topcu, and Merve Zayim-Kurtay (alphabetically ordered by surname). I am thankful for our relationship which means more than friendship. You are all like my sisters, I feel lucky to have you guys. I really appreciate your minnoşness and valuable friendship. I am glad to have all of our “academic meetings” and “gyybet times” that will make me smile for a life time. No words are enough to express my gratitude for your support and help. Thank you for being with me in this “gelimli gidimli dünya” and creating all amazing moments and memories. I am thankful that we have each other and we see that we have the ability and humbleness to appreciate someone. Love you, hope you, and hug you all. Let me be more specific, as you all want to actually see. Rahime, I’m still surprised how you are that pure. Your random act of kindness activities make me believe in the good side of humanity. I really admire and appreciate your cheer, motivation, devotion, humanity and helpfulness. Soon, you will be one of the best academicians of Turkey, and I will be proud to be your friend. Gülçin, I’m so glad to have someone that is weirdly obsessed like me. We have so many in common that make us communicate even without words. Thank you for your patience when I capture you with all the lazy ideas coming from the bottom of my mind. I appreciate your art skills, taste of music, laughter and blueness. Çiğdem, my dear ex-officemate. You provided me great support in every step of this thesis. Thank you for answering all of my questions, giving me insight, encouraging me when I was down, cheering me up with greatest examples of popular music (!) and calming me down, even on the phone. I’m also thankful for your big smile, realistic ideas, never ending optimism, and great motivation. Merve, I feel lucky that we could manage to be friends after our first impressions. I’m glad to have your humor and dark side like me. Thank you for all your help and support in every step of my doctoral study. I’m glad to have a close relationship after our first thoughts about each other. Thank you for being honest and open, funny, anxious, and supportive. I miss our coffee times.
Anne, baba ve teyze, hayatınızı girdiğim günden beri yanında olduğunuzu hissettirdiniz. Ankara’daki ailem olarak her türlü destekiniz ve yardımınız için çok teşekkür ederim. Tezinin başından sonuna kadar emeğiniz çok büyük. Baba, tüm önerilerin ve düzeltmelerin için tekrar teşekkür ederim, ellerine sağlık. İyi ki varsınız, iyi ki sizleri tanımışım.


Last, but of course not least, I would like to thank to my better half, my husband, Mert Efe. From the first day we met, I knew that you will be important and precious to me. Thank you for being with me. You know that our relationship and love have many different forms and meanings. I’m so glad that we created a special world together and share our lives with each other. Thank you for your support, thank you for making me laugh, thank you for giving me peace and comfort, thank you for taking care of me, thank you for being my friend, thank you for being my mate. Thank you for every single moment. Sing with me, sing for the year, sing for the laughter, sing for the tear. S’agapo!
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CHAPTER 1

INTRODUCTION

The show must go on…
Inside my heart is breaking,
My make-up may be flaking,
But my smile still stays on.
...
I have to find the will to carry on…

Queen (1991)

1.1 Background to the Study

Loss of a loved one may cause affective, behavioral, cognitive, and physical and somatic reactions (Stroebe, Hansson, Stroebe, & Schut, 2001) that are shaped by the culture and social environments (Lepore, Silver, Wortman, & Wayment, 1996; Vachon & Stylianos, 1988). The most common grief reactions in the affective category are depression, despair, anxiety, guilt, anger and hostility and loneliness; in the behavioral category, fatigue, crying, social isolation and instigation; in the cognitive category, thinking about the deceased, low self-esteem, helplessness, sense of unreality, and memory and concentrating problems; and finally in the physical and somatic category, loss of appetite, physical and somatic complains, and substance abuse (Stroebe, Hansson, Stroebe, & Schut, 2001; Volkan & Zindt, 2000). Since the loss is a universal experience, grief processes of the bereaved individuals may show similar patterns among different cultures and individuals. However, loss and grief are unique experiences for the individuals, thus individual differences are likely seen. These differences are generally categorized as interpersonal (i.e., social network/ support, relationship/ bonds
with the deceased, etc.) and intrapersonal processes (i.e., emotion regulation strategies, coping styles, well-being, etc.), which are also influenced by each other.

In order to understand whether these symptoms and reactions are pathological or not, Diagnostic and Statistical Manual of Mental Disorders (DSM) by American Psychiatric Association (APA) provides symptomatic criteria. In the DSM-V, pathological grief was defined as Persistent Complex Bereavement Disorder (PCBD) under Other Specified Trauma and Stressor-Related Disorder diagnostic groups (APA, 2013). The criterion was defined as (a) experiencing the loss of a close one, (b) after the death, experiencing at least one of the symptoms (persistent yearning for the deceased, intense sorrow and emotional pain in response to the death, preoccupation with the deceased, and preoccupation with the circumstances of the death) for at least 12 months for adults, and 6 months for children, (c) after the death, experiencing at least six of the symptoms (difficulty accepting the death, disbelief or emotional numbness over the loss, difficulty with positive reminiscing about the deceased, bitterness or anger related to the loss, maladaptive appraisals about oneself in relation to the deceased or the death, excessive avoidance of reminders of the loss, desire to die to be with the deceased, difficulty trusting other people since the death, feeling alone or detached from other people since the death, feeling that life is meaningless or empty without the deceased or the belief that one cannot function without the deceased, confusion about one’s role in life or a diminished sense of one’s identity, and difficulty or reluctance to pursue interests or to plan for the future since the loss) for at least 12 months for adults, and 6 months for children, (d) the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning, and (e) the bereavement reaction must be out of proportion or inconsistent with cultural or religious norms (APA, 2013, pp. 790). Moreover, DSM-V provides the distinguishes between persistent complex bereavement disorder and normal grief as (a) severe reactions at least 12 months following the loss, and (b) reactions interfering individuals’ functioning (APA, 2013, pp. 792).

In the related literature, several theories and approaches aimed to conceptualize grief process in detail, to distinguish between normal and persistent complex grief, using interpersonal or intrapersonal processes as the key determinant of the grief. For instance, according to
Psychoanalytic approach (Freud, 1957; as cited in Bonanno, Papa, & O’Neill, 2002) healthy adjustment to loss requires adaptive grieving. When an individual is faced with the loss of a loved one, there is the struggle to break the bonds and detach the energy invested in the deceased one (Freud, 1958). From the attachment perspective, Bowlby (1980) defined the grief process as a rearrangement of the representations of the deceased and the self-rearrangement of the bereaved. Model suggests four stages of loss; shock, yearning and protest, despair, and recovery. Related with the attachment theory, Parkes and Prigerson (2010) viewed grief from a psychosocial transition perspective and specified three components of the grief work. First component includes the preoccupation with thoughts of the deceased, second component is about the intrusive recalling of the loss experience which becomes painful, and finally the third component includes the attempt to understand the loss and modify the assumptions of the bereaved individuals (Parkes & Prigerson, 2010).

Moreover, some theories explain grief process in stages/tasks that bereaved individuals need to follow, including interpersonal and intrapersonal processes. For instance, Kübler-Ross (1969/2003) conceptualized the process of grief in five stages; namely, denial and isolation, anger, bargaining, depression and acceptance. Rather than explaining the grief process in stages, Worden (2009) defined four tasks for the bereaved individuals to complete; accepting the loss, experiencing the pain of grief, getting used to live in a world without the deceased, and finding a consistent connection with the deceased in the process of engaging a new life. More recently, Hogan, Greenfield, and Schmidt (2001) suggests that grief has dimensions of despair, panic behavior, blame and anger, detachment, disorganization, and personal growth.

Considering the interpersonal processes, de Ridder (1997) explained the three main cognitive coping processes; rumination, positive psychological states, and confrontation-avoidance processes. According to this model, rumination negatively mediates the adaptation process while positive psychological states positively mediate. The confrontation-avoidance processes might be both positive and negative, depending on the individuals’ control over using these processes. Another perspective, Two-Track Model of Bereavement (Rubin, 1981) focuses on the process and outcome of the grief and emphasizes the importance of two tracks; namely
“functioning of the bereaved” and the “relationship to the deceased”. According to this model, when the bereaved individual recovers his/her functioning and resolves the issues of the relationship with the deceased, he/she achieves the adjustment (Rubin, 1981).

Also, there are various studies trying to conceptualize a model to understand the grief reactions and grief processes, focusing on the importance of the emotion regulation (Bonanno, 2001; Bonanno, Papa, & O’Neill, 2002; O’Connor, Allen, & Kaszniak, 2002; Stroebe & Schut, 2001; Znoj & Keller, 2002), rumination (Boelen, van den Bout, & van den Hout, 2003; Michael & Snyder, 2005; Morina, 2011) and meta-mood experiences (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2012-2013; Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2013; Espinoza V. & Sanhueza A., 2012).

Emotion regulation was defined as the individuals’ attempts to understand the emotions they have, to be aware of the emotions when they have and to control how to experience and disclose the emotions they have (Gross, 1998). When the bereaving individuals effectively regulate their emotions, this strategy would promote the social functioning, identity continuity and problem-solving capacity (Bonanno, Papa, & O’Neill, 2002). However, when they suppress their emotions, the adjustment process of grief takes longer time than the bereaved individuals who reappraise their emotions (Bonanno, Papa, & O’Neill, 2002). Similarly, rumination, which is defined as the self-focused attention used to cope with the negative mood (Lyubomirsky & Nolen-Hoeksema, 1995; Nolen-Hoeksema & Morrow, 1991), was used as a common strategy in the adaptation process to grief. Bereaved individuals with high levels of rumination were found to report greater psychological distress (Nolen-Hoeksema, McBride, & Larson, 1997), lessened psychological well-being (Michael & Snyder, 2005), and maladaptive adjustment to grief (Stroebe, Boelen, van den Hout, Stroebe, Salemink, & van den Bout, 2007). Moreover, meta-mood was conceptualized as thinking about the feelings, finding the connections between the thoughts and feelings, and finally maintaining good moods and if needed, changing bad ones into better ones (Mayer, 1986). Meta-mood and grief process is not explored yet, but Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito (2012-2013) concluded that the individuals who pay more attention to their feelings experience
difficulties in coping with death related issues. However, when the individuals have a better understanding and regulating of their emotions, they cope with death related issues better. Moreover, Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito (2013) found that attention to feelings had a positive correlation with death anxiety, while clarity of feelings and mood repair had a negative correlation.

Likewise, it is known that the social network of the bereaved one plays important role in the experiencing and expressing the emotions (Lepore, Silver, Wortman, & Wayment, 1996). Social networks, as the culture of the bereaved, describe the appropriate experiencing and expression of the emotions. Social support is the help, guidance and comfort that individuals receive from the connection to other individuals or groups (Vachon & Stylianos, 1988). On the other hand, when the emotional, informational, appraisal or instrumental support is not available, the individual experiences the social constraints (Lepore, Silver, Wortman, & Wayment, 1996). Studies on social support and social constraints show that when the bereaved individuals are supported by their social network, they adjust to the grief adaptively (Vachon & Stylianos, 1988), and experienced more positive emotions and less negative emotions (Sheridan, 2005). However, if the bereaved individuals are not able to receive support and perceive social constraints, they found to report more intrusive thoughts and depressive symptoms (Lepore, Silver, Wortman, & Wayment, 1996).

To sum up, grief is both a universal and unique/ individual experience that causes grief reactions to have similarities across cultures and individuals, and at the same time have individual differences. Similarities in grief reactions are categorized under four main reaction groups; affective, behavioral, cognitive and physical/ somatic. And the individual differences in grief reactions may be related to interpersonal and intrapersonal processes, which are also influenced by each other. Majority of the grief theories that investigate the grief experience focus on the interpersonal and intrapersonal processes separately. However, Two-Track Model of Bereavement aims to explore grief experience from a more comprehensive perspective by measuring the interpersonal and intrapersonal processes together. The model investigates the functioning (interpersonal processes) of the deceased and the influences of
the previous relationship with the deceased (intrapersonal processes) on the grief adjustment process. Because of the comprehensive perspective that it provides, Two-Track Model of Bereavement was selected as the theoretical background to the study.

Nevertheless, Two-Track Model of Bereavement lacks to explore important personal traits and characteristics that may influence their functioning and adjustment to the loss. These traits and characteristics are thought to be individuals' emotional, cognitive and social backgrounds such as meta-mood processes (i.e., emotional intelligence), emotion regulation strategies, ruminative responses and perceptions of social constraints, which are found to be related with functioning in several studies. For example, meta-mood is an adaptive coping mechanism in stressful situations (Salovey, Stroud, Woolery, & Epel, 2002) and found to be associated with lower levels of depression (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Salovey, Stroud, Woolery, & Epel, 2002; Schmidt, 2002). Similarly, emotion regulation is also an adaptive coping strategy in negative life events since its associations with lower depression (Forkmann, Scherer, Pawelzik, Mainz, Drueke, Boecker, & Gauggel, 2014; Witlink et al., 2011) and higher levels of functioning (Balzarotti, John, & Gross, 2008; Gillanders, Wild, Deighan, & Gillanders, 2008) were found. On the other hand, rumination is known to be a maladaptive coping strategy in adjustment to loss of a loved one (Nolen-Hoeksema, McBride, & Larson, 1997; Nolen-Hoeksema, Parker, & Larson, 1994), and was also associated with higher levels of depression (Nolen-Hoeksema & Morrow, 1991; Treynor, Gonzalez, & Nolen-Hoeksema, 2003), higher levels of stress (Nolen-Hoeksema, Parker, & Larson, 1994). Moreover, perception of social constraints was also a maladaptive variable in the grief process with the associations with higher levels of stress (Lepore, 2001), higher levels of anxiety (Schmidt, 2002), and higher levels of depression (Agustsdottir et al., 2010).

Consequently, emotional, cognitive and social variables are known to influence interpersonal and intrapersonal processes. Thus, the current study aimed to explore the interpersonal and intrapersonal processes simultaneously by improving the understandings of Two-Track Model of Bereavement, and building a model investigating the relationships among meta-mood, emotion regulation, rumination, social constraints, and grief adjustment process.
1.2 Purpose of the Study

As seen from the studies and theories summarized above, grief experience of the bereaved individuals were found to be influenced by social, cognitive, and emotional variables and show individual differences. Moreover, previous relationship and current bond with the deceased defines adjustment to grief and functioning of the bereaved individuals. Bringing the interpersonal and intrapersonal processes together, the purpose of this study was to examine the relationships among the social constraints and cognitive and emotional strategies, and their impact on the grief process. With this purpose, Two-Track Model of Bereavement was used as the background theory and meta-mood experiences, emotion regulation strategies, ruminative responses and social constraints were examined in relation with grief process. In other words, this study explored the influence of meta-mood processes, emotion regulation strategies, ruminative responses and perceptions of social constraints of bereaved individuals on their grief process.

1.3 Significance of the Study

Loss of a loved one is a very common life event which makes individuals experience grief. Most of the bereaved individuals experience the feelings of anger, sadness, loneliness, guilt, and despair (Stroebe, Hansson, Stroebe, & Schut, 2001). However, not every people experience the same feelings, some may grieve much more and longer than others (Bonanno, et al., 2002). These differences may occur due to the social support or constraints and emotion and mood regulation strategies that bereaved ones use. Thus, in order to examine the individual differences among bereaving individuals, it is important to investigate the social constraints on grief and the available cognitive and emotional strategies.

Additionally, as summarized above, the research in the grief literature mainly focuses on the emotional, social, cognitive, and physical consequences of the bereavement. Studies and models (Hogan, Greenfield, & Schmidt, 2001; Kübler-Ross (1969/2003); Parkes & Prigerson, 2010; Worden, 2009) emphasize the importance of the emotional reactions, cognitive processes
and the social support to the bereaved in the process of coping with grief. However, these related concepts are the subjects of different studies. A majority of research investigate the relationship between cognitive and emotional strategies and adaptation to grief and several studies focus on the social support and constraints and their effect on the grief adaptation process. However, these relationships are not considered in relation with the previous relationship and the current bond with the deceased. There is a gap in the research to examine the relationships among the social constraints and cognitive and emotional strategies, and their impact on the grief process, consequently. This study aimed to be a pioneer in combining the social, cognitive and emotional aspects all together in the grief process in relation with the previous relationship and the current bond with the deceased.

Also, there is not any study investigating the effect of meta-mood processes on the grief course. It is known that rumination, emotion regulation, and social constraints have important roles in grief process, separately. However, the relationship between meta-mood and grief has not been investigated yet. Meta-mood is simply defined as the emotional intelligence, and is a trait related with emotion regulation and rumination. Meta-mood process of the individuals may serve as a coping mechanism since it includes repairing of the bad mood. The relationship of meta-mood with stress, depression and anxiety have been revealed by several studies such as Ghorbani, Bing, Watson, Davison, and Mack (2003); Salovey, Woolery, and Epel (2002); Schmidt (2002). Since death of a loved one may create distress, it is important to explore the meta-mood experience in the grief process.

Finally, this study was the first one to examine the relationships among social constraints, cognitive and emotional strategies, and grief process in a Turkish sample. Additionally, the Social Constraints Scale was adapted into Turkish context in the current study. Social support is a well-known variable and there are several measures to explore the aspects of social support. But it is also important to consider the other side, the constraints. Social support is known as a resource for the bereaved individuals through their grief journey. Parallel to this knowledge, social constraints was considered as a risk factor on grief process and thus tested in this study.
1.4 Research Questions and Hypotheses

The purpose of this study was to examine the relationships among the social constraints and cognitive and emotional strategies, and their impact on the grief process. With this purpose, the study has searched for the answer to the research question of:

1. How does bereaved individuals’ meta-mood processes, ruminative responses, emotion regulation strategies, and perceptions of social constraints relate to their grief process in a model?

The tested model presented in Figure 1 (pp. 89) had specific research questions:

1.1. How does bereaved individuals’ meta-mood processes relate to their grief process in a model?
1.2. How does bereaved individuals’ emotion regulation strategies relate to their grief process in a model?
1.3. How does bereaved individuals’ ruminative responses relate to their grief process in a model?
1.4. How does bereaved individuals’ perceptions of social constraints relate to their grief process in a model?
1.5.1. How does bereaved individuals’ previous relationships with the deceased relate to their grief process in a model?
1.5.2. How does bereaved individuals’ traumatic perceptions of loss relate to their grief process in a model?

Parallel to the research questions, the hypothesis of the study were:

H1.1: Higher levels of attention to feelings were positively correlated with reappraisal and were negatively correlated with suppression.
H1.2: Higher levels of clarity of feelings were positively correlated with reappraisal.
H1.3: Higher levels of repair of mood were negatively correlated with relational active grieving and biopsychosocial functioning.

H2.1: Higher levels of reappraisal were negatively correlated with relational active grieving, biopsychosocial functioning and rumination.

H2.2: Higher levels of suppression were positively correlated with relational active grieving, biopsychosocial functioning and rumination.

H3.1: Higher levels of rumination were positively correlated with relational active grieving, biopsychosocial functioning, attention to feelings, and social constraints but were negatively correlated with clarity of feelings and repair of mood.

H4.1: Higher levels of social constraints were positively correlated with relational active grieving, biopsychosocial functioning and suppression but were negatively correlated with reappraisal.

H5.1: Higher levels of close and positive relationships with the deceased were positively correlated with relational active grieving, biopsychosocial functioning and reappraisal but were negatively correlated with suppression.

H5.2: Higher levels of conflictual relationships with the deceased were positively correlated with relational active grieving, biopsychosocial functioning, suppression, rumination and social constraints.

H5.3: Higher levels of traumatic perception of death were positively correlated with relational active grieving, biopsychosocial functioning, suppression, rumination and social constraints.

1.5 Definition of Terms

Bereavement is “understood to refer to the objective situation of having lost someone significant” (Stroebe, Hansson, Stroebe, & Schut, 2001, pp. 6). Individuals experience loss of their parents, friends, relatives, and even their children across the life span, thus bereavement is a common experience around the world.
Grief is “the usual reaction to bereavement … defined as a primarily emotional (affective) reaction to the loss of a loved one through death” (Stroebe, Hansson, Stroebe, & Schut, 2001, pp. 6). Somatic, cognitive, and behavioral reactions are also considered as grief reactions.

Mourning is defined as “the social expressions or acts expressive of grief that are shaped by the practices of a given society or cultural group” (Stroebe, Hansson, Stroebe, & Schut, 2001, pp. 6). Rituals, funerals, and even the grieving time may be defined by the society. All these socially and culturally shaped practices constitute the mourning process.

Meta-mood refers to a trait process including individuals’ awareness of their feelings and the ability of changing their mood. More specifically, meta-mood is a combination of attending to the feelings, making clear separations among feelings, and if needed, changing the mood into a better one (Mayer, 1986).

Attention to feelings is a meta-mood factor referring to the individuals’ monitoring of and focusing on their emotions (Salovey et al., 1995).

Clarity of feelings is a meta-mood factor referring to the individuals’ ability to distinguish among their feelings (Salovey et al., 1995).

Repair of mood is a meta-mood factor referring to the individuals’ regulation abilities of their moods (Salovey et al., 1995).

Emotion regulation refers to the concerns that “individuals’ attempts to influence which emotions they have and how those emotions are expressed” (Gross & Munoz, 1995, pp. 152).

Reappraisal refers to the early strategy in emotion-generation process changing the perception of the events that cause the emotion to finally change the emotion (Gross, 2002).
Suppression refers to the further strategy in emotion-generation process hindering the emotion to come out (Gross, 2002).

Ruminative response style is defined as “a pattern of behaviors and thoughts that focus the individual’s attention on his or her emotional state and inhibit any actions that might distract the individual from his or her mood” (Nolen-Hoeksema, 1991, pp. 569).

Social constraints refers to the barriers in communication especially after a stressful situation. Individuals have a need to talk about upheavals to normalize the events and to get support from their social environments. But in some cases, listeners can find themselves in a psychologically threatening situation and build “barriers to prohibit others from bringing up the topic” which is defined as social constraints (Pennebaker & Harber, 1993, pp. 133).
CHAPTER 2

LITERATURE REVIEW

Loss of a loved one is a universal experience, therefore grief responses of individuals may show similarities from person to person, and even from culture to culture. The most common grief reactions can be grouped in four main categories; affective, behavioral, cognitive, and physical and somatic reactions. According to the researchers such as Stroebe, Hansson, Stroebe, and Schut (2001) and Volkan and Zindt (2000), depression, despair, anxiety, guilt, anger and hostility and loneliness are the most common reactions in the affective category; fatigue, crying, social isolation and instigation are the most common reactions in the behavioral category; thinking about the deceased, low self-esteem, helplessness, sense of unreality, and memory and concentrating problems are the most common reactions in the cognitive category; and finally loss of appetite, physical and somatic complains, and substance abuse are the most common reactions in the physical and somatic category. On the other hand, since loss and grief are unique experiences, individuals from the same culture or same family may response in different ways to the loss of their loved ones. These differences may be related to interpersonal (i.e., social constraints and relationship with the deceased) and intrapersonal (i.e., rumination, emotion regulation, and meta-mood experiences) processes, which have close relationships with each other.

In the related literature, several grief theories aim to explain the grief experiences of the bereaved individuals. Most of these theories focus on the grief reactions or focus on the interpersonal and intrapersonal processes separately. Two-Track Model of Bereavement combines interpersonal and intrapersonal processes and aims to understand the grief adjustment of bereaved individuals from a broader perspective. The model explores previous relationship with the deceased and current functioning of the bereaved individual. However,
individuals have different emotional, cognitive and social backgrounds which influence their perception of the loss, relationships with their loved ones, and functionality, and the influence of these aspects are not controlled in most of the theories. Emotion regulation abilities, use of ruminative responses and meta-mood processes, and perception of social constraints may change the individuals’ worldview, reactions to daily events, and coping with stressful experiences such as loss of a loved one. For instance, higher levels of rumination was found to be associated with higher stress levels (Nolen-Hoeksema, Parker, & Larson, 1994), depression (Nolen-Hoeksema & Morrow, 1991; Treynor, Gonzalez, & Nolen-Hoeksema, 2003), and harder adaptation to loss of a loved one (Nolen-Hoeksema, McBride, & Larson, 1997; Nolen-Hoeksema, Parker, & Larson, 1994). Moreover, emotion regulation ability was found to be associated with better functioning (Balzarotti, John, & Gross, 2008; Gillanders, Wild, Deighan, & Gillanders, 2008) and lower depression scores (Forkmann, Scherer, Pawelzik, Mainz, Druke, Boecker, & Gauggel, 2014; Witlink et al., 2011), which show that emotion regulation strategy was an adaptive coping mechanism towards the negative and stressful events. Similarly, meta-mood was found to be related with stress and depression. Clarity of feelings and repair of mood served as adaptive coping mechanisms in stressful life events (Salovey, Stroud, Woolery, & Epel, 2002) and were correlated with lower levels of depression (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Salovey, Stroud, Woolery, & Epel, 2002; Schmidt, 2002). In the social context, availability of social support and lower levels of perceived social constraints were found to be associated with lower distress level (Lepore, 2001), while lack of social support and perception of social constraints were correlated with higher levels of anxiety and avoidant cognitions (Schmidt, 2002) and higher depression scores and intrusive thoughts (Agustsdottir et al., 2010). Therefore, it can be concluded that emotional, cognitive and social aspects have important roles on the intrapersonal and interpersonal processes in stressful events, and in order to examine the personal differences on grief course, interpersonal and intrapersonal processes should be considered simultaneously. Thus, this study aimed to investigate the relationships among the interpersonal and intrapersonal processes, and their impact on the grief course in a Turkish sample. To be more specific, the purpose of this study was to expand the understandings from
the Two-Track Model of Bereavement by building a model investigating their relationships with meta-mood, emotion regulation, rumination, and social constraints.

In this chapter of the study, the review of the related literature was presented in four main sections. In the 1st section, grief process was discussed in detail. First, general perspectives on grief and bereavement were presented, and grief and related concepts (i.e., emotions, social context, adaptation, functioning, etc.) were discussed in the light of studies. Furthermore, empirical grief studies in Turkey were summarized. Then, theories on grief process were given. After summarizing the grief theories, the main grief theory used in the present study, Two-Track Model of Bereavement (TTMoB) was explained and studies using the model were presented. In the 2nd section, cognitive and emotional strategies, namely meta-mood experiences, emotion regulation and rumination were discussed in relations with grief process. 3rd section includes social constraints and their relations with grief. Finally, in the 4th section, the summary of the literature review was given.

2.1 Grief

Grief is a very common situation as every human being experience or witness, thus it is a very commonly researched topic. However, in the related literature, there are some terms used interchangeably; such as grief, mourning, and bereavement, and Stroebe, Hansson, Stroebe, and Schut (2001) presented the definitions and differences among these terms. The term bereavement is used to point to the situation of losing a loved one. Throughout the life, individuals experience the death of their parents, siblings, friends, spouses and even their children; therefore, bereavement is a universal concept. The experience of bereavement leads most people have stress reactions. The normal reaction to the bereavement is called grief which includes emotional reactions to the loss of a loved one. Finally, the term mourning is usually used to emphasize the social dimensions of the grief, such as expressions and acts defined by the culture (Stroebe, Hansson, Stroebe, & Schut, 2001).
Death is an unavoidable event causing fear and anxiety. Since death is the end of every living being, grief is a very common situation as every individual experience or witness, and so it is a commonly researched topic. Either in the threat of losing a loved one or object, individuals may experience grief. The most common grief reactions are feelings of despair (Stroebe, Hansson, Stroebe, & Schut, 2001), guilt, anger, anxiety and sadness (Hawkins, 2002; Young, Ford, Ruzek, Friedman, & Gusman, 1998).

Reactions to loss and the process of grief is influenced by several factors which may also be risk factors following loss. These factors are generally categorized in two main groups; factors related to the deceased, and factors related to the bereaved. In terms of factors related to the deceased, most of the studies show that these reactions differ whether the death is expected or not or the deceased had a serious illness. Especially after experiencing sudden death as a result of accident or experiencing death due to an illness, it is more difficult to cope with the grief (Cimete & Kuğuoğlu, 2006; Moules, 2009; Yıldırım, 2003).

Sanders (1988) summarized these risk factor under four categories; “biographic/ demographic factors, individual factors, mode of death, and circumstances following the loss” (pp. 97). First category that defined as biographic/ demographic factors include age, gender and socioeconomic status of the bereaved. Studies exploring the age factor on grief reactions showed that at the first months after the death, younger individuals experience more intense grief reactions than the older ones. However, afterwards younger bereaved ones adjust to the loss better than the older bereaved ones. In terms of gender differences, grief reactions of men and women differ. Women mostly suffer from emotional reactions while men report somatic symptoms. And socioeconomic status is important since it may add more stress to the bereaved ones when they fail to maintain their socioeconomic status after the loss (Sanders, 1988). The second category which was named as individual factors include personality, health before bereavement, and ambivalence and dependency. Personality of the deceased ones define the way that they react to stressful situations, such as loss of a loved one. When the individuals are insecure, anxious, and report low levels of emotional stability, they may be in the risk group. Also, health before the bereavement is an important indicator for the reactions
to stress. Mental and physical health act as resources for the bereaved individuals, and problems with health commonly result in more stress. Ambivalence and dependency refers to the relationship between the deceased and the bereaved. When the bereaved individuals have ambivalent emotions or are dependent to the deceased, grief reactions become much more complex. Under the mode of death category, sudden vs. anticipated death, suicide, and stigmatized death are named as risk factors. Sudden death evokes the shock and may result in an emotional trauma. When the sudden death is a suicide case, there are more stressors such as stigmas and religious beliefs. Stigmatized death also includes AIDS or other deaths caused by sexually transmitted diseases, and suicide. Bereaved friends or relatives in this group suffer from negative support (Sanders, 1988). And final category which was named as circumstances after the loss include lack of social support and concurrent crisis. When bereaved individuals do not get enough support from their social network, they feel isolated and more stressed. This may result in returning their anger, guilt and despair towards themselves. Moreover, when there are other losses and crisis in the bereaved ones’ daily lives, such as sudden unemployment, loss of physical health, divorce, etc. these individuals have greater health risks (Sanders, 1988).

Looking from the resilience perspective, Bonanno, Papa, and O’Neill (2002) explained the factors contributing to the well-being of bereaved individuals. Individuals’ worldview, self-enhancement mechanisms, focusing on concrete aspects of themselves, and emotion regulation strategies improve their resilience and well-being. Worldview is defined as a person’s beliefs and senses about the world, self, and others, and perception of the world. Self-enhancing mechanism provides resources to individuals to protect their integrity of self during the experiences of negative life events. Concrete aspects such as roles, responsibilities, and goals are more easily monitored, controlled and changed. Thus, they let bereaved individuals explore the continuation of daily functioning and development of their tasks. Emotion regulation includes the experience and expression of emotions appropriately in the social context. Functional worldview, optimal levels of self-enhancing, focusing on concrete aspects rather than abstract features, and using emotion regulation strategies effectively improve psychological health. Moreover, continuing bonds with the deceased help the
bereaved individuals maintain a healthy grief process by feeling connected with the deceased after the death without suppressing their emotions (Bonanno, Papa, & O’Neill, 2002).

Recently, Jakoby (2012) suggested an integrative model to understand the grief process. According to this model, grief process is influenced by several aspects that are in relation with each other. Starting with the death of a loved one, bereaved individual focuses on framing the loss. Mode of the death and the relationship with the deceased play important roles on this framing process as well as the socially (i.e., personal, familial and societal) structured framing rules. Then, the frame of the loss structured by the bereaved ones influences their feelings and expressions of their feelings, which are also influenced by the society. But the relationship between the framing and experiencing the emotions is not unidirectional, they influence each other. Finally, the experience and expression of the emotions define the coping mechanisms that bereaved individuals use. Coping mechanisms include personal and social resources which is again influenced by the social norms. The relationship between feelings and coping mechanisms is also reciprocal (Jakoby, 2012).

As seen from these different perspectives, grief process is influenced by several factors. Factors related to the deceased include mode of death, gender and age of the deceased. Additionally, factors related to bereaved include individual factors such as experience and expression of emotions, coping strategies, and relationship with the deceased, and social factors such as social support, social structure and culture. Since the influence of cognitive, emotional, and social processes on the grief process of the bereaved individuals is obvious, it is essential to have a deeper investigation of these relations.

2.1.1 Grief and Social, Cognitive, and Emotional Processes

Individual factors influencing the grief reactions and process of the bereaved ones include experience and expressions of emotions, coping strategies, experience of social support and constraints, and satisfaction with life. Studies investigating the grief process with regard to these factors were presented in this section.
McGloshen and O’Bryant (1988) aimed to understand the psychological well-being of older widowers after the loss of their husbands. Participants of the study were 226 widowers with a mean age of 71.6 (SD = 6.49). The average time since the death of spouse was 13 months, ranging from 7 to 21 months. The impacts of demographic variables (i.e., age, income, and education level), religious status (i.e., worship service attendance, and other religious activities), other activities (i.e., employment and secular activities), health, death related variables (i.e., suddenness of death and previous deaths), and social support (i.e., support from children, siblings and other relatives, neighbors) on the experience of negative and positive emotions were investigated. Results showed that experience of positive emotion was positively predicted by health, religious worship, number of siblings, support from children, and other religious activities. On the other hand, negative emotion was negatively predicted by health, experience of other deaths, satisfaction with housing, and employment outside the house (McGloshen & O’Bryant, 1988). As seen from the results, health was an important predictor of both the experience of negative and positive emotions. Moreover, positive emotions were observed to be influenced by social support and social activities, while negative emotions influenced by materialistic variables.

Schwab (1996) investigated gender differences in emotional experiences after loss of a child with a sample of 35 bereaved parents. Grief Experience Inventory was used to assess differences between mothers and fathers scores in despair, dependency, appetite, anger/hostility, loss of vigor, social isolation, loss of control, guilt, somatization, optimism/despair, depersonalization, physical symptoms, rumination, sleep disturbance, and death anxiety. The mean age of mothers’ was 47 and fathers’ was 59. Of the deceased children, 16 were females and 19 were males with an age range of 0 (i.e., stillbirth) to 40. And while 57% of them died suddenly, 43% died because of an illness. Results indicated that mothers had significantly higher scores on despair, anger/hostility, guilt, loss of control, rumination, depersonalization, somatization, loss of vigor, and physical symptoms than fathers. Also, there were no significant gender differences for social isolation, death anxiety, loss of appetite, and optimism/despair scores. Moreover, the effect of time after the loss and the age of the deceased child on the grief scores of mothers and fathers were analyzed. It was found that
neither time after the death nor the age of deceased child had significant effect on the grief scores of mothers and fathers (Schwab, 1996).

In order to present a deeper investigation of predictors of complicated grief, Horowitz et al. (1998) studied with bereaved individuals who experienced the loss of their spouses. Participants of the study were 72 conjugal bereaved individuals (45 females and 27 males) with a mean age of 47. Measurements of grief symptoms, distress, perceived physical health, positive states of mind, self-blame, social support, ambivalence towards the deceased, over-control of emotion, perception of the spouse as an extension of self, and marital satisfaction were done at 6 months after the loss (T1) and 14 months after the loss (T2). Depending on the grief symptoms at T2, participants were decided to be under two groups; complicated grief ($n = 30$) and normative grief ($n = 42$). Results of the study declared that, at T1 participants in normative grief group had significantly lower scores of distress, number of grief symptoms, grief, depression, and higher scores of positive states of mind than the participants in complicated grief group. Social support was not significantly different for the complicated grief and normative grief groups at T1. Furthermore, at T2, participants in normative grief group had significantly lower scores of intrusive experiences and behaviors, number of grief symptoms, and avoidant experiences and behaviors. Also, social support was not significantly different for the complicated grief and normative grief groups at T2, however perception of the deceased as an extension of self was higher in complicated grief group than the normative grief group. That is, during the first months of bereavement, distress, number of grief symptoms, grief, depression, and negative states of mind were predictors of complicated grief. After the first year, intrusive experiences and behaviors, number of grief symptoms, avoidant experiences and behaviors, and perception of the deceased as an extension of self were predictors of complicated grief (Horowitz et al., 1998).

Similarly, Kelly et al. (1999) aimed to examine the predictors of psychological well-being of the bereaved caregivers of cancer patients. Measurements were done at two different times, first one was approximately 1.5 months after the loss, and the second one was 4 months after the loss. Participants of the study were 178 caregivers (76% females) with a mean age of 57
(SD = 14.6). Of the patients that were cared by the participants, 43% were females and their mean age was 68.8 (SD = 11.8). Of the participants, 44 were female spouses of the patients, 21 were daughters, and 16 were male spouses. Caregivers’ physical functioning (i.e., general health), psychological functioning (i.e., anxiety, depression, guilt, coping, and perception of the patients’ symptoms and the distress those symptoms cause for the caregivers), social functioning (i.e., social support, negative life experiences, quality of the relationship with the deceased), past bereavement experiences, and the importance of religious/spiritual beliefs were measured as well as the patients’ clinical performance, mental health, quality of life, general health, depression and anxiety levels at Time 1. Caregivers’ frequency of grief symptoms, negative life events, general health, guilt, anxiety and depression levels were measured at Time 2. Results revealed that (a) Time 1 anxiety and depression scores of the caregivers were predicted by accepting responsibility as coping, avoidant coping, number of negative life events, patients’ lower quality of life, lower planful problem solving, and patients’ being male, (b) Time 1 general health scores of the caregivers were predicted by avoidant coping, accepting responsibility as coping, frequency of patients’ symptoms, and lower levels of practical assistance, (c) Time 2 anxiety and depression scores of the caregivers were predicted by Time 1 anxiety and depression scores and number of negative life events, (d) Time 2 general health scores of the caregivers were predicted by previous experiences of bereavement, number of negative life events, accepting responsibility as coping, poorer performance of the patients, and lower levels of religiosity, (e) Time 2 general health scores of the caregivers were significantly associated with Time 2 bereavement symptoms, (f) Time 2 negative life experiences of the caregivers was predicted by lower intimacy with the deceased, avoidant coping, and separation from parents as a child, and finally (g) Time 2 guilt scores of the caregivers were predicted by guilt at Time 1, poorer performance of the patient, separation from parents as a child, patients’ lower quality of life, lower intimacy with the deceased, and lower levels of practical assistance (Kelly et al., 1999).

In their study, Nakao, Kashiwagi, and Yano (2005) explored the relationships among grief, alexithymia (i.e., difficulty in identifying feelings, difficulty in describing feelings and externally oriented thinking) and mood states in a Japanese sample. Participants of the study
were 54 women with a mean age of 50.2 ($SD = 14.6$) who experienced loss of their spouses of first-degree relatives. Average time since the loss was 27.4 months ($SD = 17.9$). Results indicated that grief reactions were positively associated with difficulties in identifying the emotions, depression and tension-anxiety mood states. Moreover, after controlling for age, time after the loss, difficulties in defining emotions, and externally thinking; difficulties in identifying feelings significantly and positively predicted grief reactions (Nakao, Kashiwagi, & Yano, 2005).

From a positive perspective, Riley, LaMontage, Hepworth, and Murphy (2007) investigated the relationships among optimism, coping, perceived social support, personal growth, grief responses and complicated grief. Participants of the study were 35 bereaved mothers with a mean age of 44 ($SD = 8.8$) who experienced the loss of their children. Of the deceased children, 58% had died of accidents and the mean age was 12. The average time since the death was 15.7 months ($SD = 8.4$). Correlations indicated that (a) optimism was negatively correlated with grief reactions and complicated grief, (b) active coping was negatively associated with grief reactions but was positively associated with personal growth, (c) support seeking was negatively correlated with grief reactions and complicated grief scores, but was positively correlated with personal growth, (d) positive reframing was negatively related to grief reactions and complicated grief scores but was positively correlated with personal growth, and (e) perceived social support negatively related to grief reactions and complicated grief scores but was positively correlated with personal growth. Results of the multiple regression analysis showed no significant relationships when all of the variables were entered to the analysis. However, optimism and positive reframing as coping were slightly significant in predicting grief responses (Riley, LaMontage, Hepworth, & Murphy, 2007).

Pressman and Bonanno (2007) focused on the social context in which bereavement reactions occur. Conjugally and parentally-bereaved participants who were under 66 years old were recruited from the US and China and the measurements of grief-processing behaviors within social context were done at 4 months after the loss (T1) and 18 months after the loss (T2). The US sample consisted of 63 participants (41 females and 22 males; 47 conjugally, 16 parentally
bereaved) and the China sample consisted of 62 participants (40 females, 22 males; 40 conjugally, 22 parentally bereaved). Grief-processing behaviors were measured regarding thinking about the deceased, positive memories about the deceased, searching for meaning in the loss, and avoiding thinking about the deceased variables and within three social contexts; family, friends and alone (pp. 729). Results displayed that (a) grief processing significantly declined from T1 to T2 for thinking about the deceased, searching for meaning, and positive memories of the deceased variables, (b) thinking about the deceased, searching for meaning, and positive memories of the deceased behaviors observed significantly lower among friends than family and alone conditions, (c) there were significant culture differences for searching for meaning and avoiding thinking about the deceased that Chinese participants reported higher levels than participants from the US, (d) searching for meaning level was higher in parentally bereaved group than the conjugally bereaved group, (e) female participants reported higher levels of thinking about the deceased than the male participants. In terms of interaction effects, it was found that (a) thinking about the deceased, searching for meaning, and positive memories of the deceased scores declined more within friends than they declined within family and alone, (b) higher levels of avoidant thinking were observed within friends than within family and alone, (c) levels of thinking about the deceased and searching for meaning were higher for parentally bereaved group than the conjugally bereaved group in the US sample but they were higher for the conjugally bereaved group in Chinese sample, and (d) level of avoiding thinking about the deceased was higher for conjugally bereaved group in the US sample but it was higher for the parentally bereaved group in Chinese sample. Thus, it was concluded that bereaved individuals use the time alone or with family for grief processing than the time with friends. The difference among the social contexts might be because of the participants’ loss experiences were in family and they searched support of the family (Pressman & Bonanno, 2007).

Moreover, Lund, Utz, Caserta, and de Vries (2008-2009) examined the emotional experiences of bereaved spouses. They aimed to understand the relationships among experiencing positive emotions (i.e., humor, laughter, and happiness) and the importance they place to these positive emotions along with depression and grief. Participants of the study were 292
bereaved spouses (179 females and 113 males) with a mean age of 69.6 ($SD = 10.5$). Average time after the death of the spouse was 15.6 weeks, and the participants were married to their spouses for an average of 39.8 years ($SD = 17.0$). Participants also reported high levels of satisfaction with their marriages (i.e., $M = 6.0$, $SD = 1.1$ on a 7-point scale). Results revealed that (a) experience and importance of humor, laughter, and happiness was not associated with age, gender, length of marriage, satisfaction with marriage, or time since the death, (b) expectancy of death was positively associated with the experience and importance of humor, laughter, and happiness, and (c) both experience and importance of positive emotions were negatively associated with grief and depression. Moreover, authors categorized the experience and importance of positive emotions scores as high and low to monitor possible differences among these groups in terms of depression and grief scores. It was found that higher experience and higher importance of positive emotions had negative significant associations with both depression and grief, indicating that bereaved spouses who experience higher levels of positive emotions and who place higher levels of importance to these positive emotions experience lower levels of depression and grief (Lund, Utz, Caserta, & de Vries, 2008-2009).

More recently, Delespaux, Ryckebosch-Dayez, Heeren, and Zech (2013) tested a model of grief, attachment, negative appraisal of bereavement related stressors and coping. Participants of the study were 321 bereaved individuals (285 females) with a mean age of 41 ($SD = 14.2$) who experienced loss of their romantic partner. Of the deceased partners, 44.5% died of a disease, 26.8% died of an accident, and 9.7% committed suicide. Participants reported high levels of intimacy in their relationships (mean score was 5.53 out of 6). The average length of the relationship was 161.7 months ($SD = 154.2$) and the average time after the death was 2.84 years ($SD = 5.17$). Results showed that (a) anxious attachment was positively associated with avoidant attachment and traumatic grief, (b) avoidant attachment was negatively associated with negative appraisal, oscillation, and traumatic grief, (c) negative appraisal was positively correlated with oscillation and traumatic grief, and (d) oscillation was positively associated with traumatic grief. Results of the model testing showed that (a) avoidant attachment was negatively associated with negative appraisal and oscillation, (b) negative appraisal had a
positive relationship with oscillation and a mediator role on the relationship between avoidant 
attachment and oscillation, (c) negative appraisal was positively related with grief adjustment, 
and (d) oscillation had a positive relationship with grief adjustment and had a mediator role 
on the relationship between negative appraisal and grief adjustment. That is, higher avoidant 
attachment was related with less negative appraisal of stressors which was leading to less 
oscillation. Moreover, lower scores on oscillation were leading to lower scores on grief 

In Turkey, there are few empirical studies in grief related topics. In their scale adaptation 
study, Yıldırım and Fışıloğlu (2005) investigated the relationships among the Hogan Grief 
Reaction Checklist’s subscales. 110 bereaved parents who experienced the death of their infant 
babies were participants of the study. Of the participants, 55 were females and 55 were males 
and the mean age was 29.66 (SD = 6.24). The average time after the death was 11.77 months 
(SD = 4.90). Results showed that (a) despair was positively correlated with panic behavior, 
blame and anger, detachment, and disorganization while it was negatively correlated with 
personal growth, (b) panic behavior was positively correlated with blame and anger, 
detachment, and disorganization, (c) personal growth was negatively associated with blame 
and anger, and detachment, (d) blame and anger was positively correlated with detachment 
and disorganization, and finally (e) detachment was positively associated with disorganization (Yıldırım & Fışıloğlu, 2005).

In a cross-cultural study, Ayten (2009) searched for the differences between the death anxiety 
levels of Turkish and Jordanian students. Participants of the study were 126 Turkish and 121 
Jordanian students with a mean age of 23. Of the participants, 132 were females and 115 were 
males. Results showed that average death anxiety level for the whole sample was 3.2 out of 5, 
and the highest scores were for fear of a painful death (M = 4). Death anxiety and age 
differences were also analyzed and younger group (i.e., participants with an age range of 17 
to 21) had significantly higher levels of death anxiety than the older group (i.e., participants 
with an age range of 22 to 30). In terms of cultural differences, general death anxiety level of 
Jordanian students were significantly higher than Turkish students. When compared death
anxiety components, Jordanian students had significantly higher levels of anxiety in talking about the death and thinking about the death, fear of dying and painful death, and fear from a dead body than Turkish students. Moreover, Jordanian students had significantly lower levels of fear from the life after death, and fear of war than Turkish students. Finally, females found to have significantly higher levels of death anxiety than males, but there were no significant relationship between religiosity and death anxiety (Ayten, 2009).

Finally, another scale adaptation study was conducted by Ayaz, Karanci, and Aker (2014). The authors examined the reliability and validity of the Turkish version of Two-Track Model of Bereavement Questionnaire with a sample of 205 bereaved individuals. Of the participants, 77.6% were females and 22.4% were males and the mean age was 31.76 (SD = 11.59). Mean age of the deceased loved ones was 59.56 (SD = 22.17). Results showed that (a) traumatic perception of grief was positively associated with relational active grief, close and positive relationships with the deceased, conflictual relationships with the deceased, depression and impact of negative life events, (b) relational active grief was positively associated with close and positive relationships with the deceased, conflictual relationships with the deceased, social dysfunction, depression and impact of negative life events, (c) close and positive relationships with the deceased were negatively associated with conflictual relationships with the deceased and social dysfunction, and were positively associated with impact of negative life events, (d) conflictual relationships with the deceased were positively correlated with social dysfunction, depression and impact of negative life events, and finally (e) social dysfunction was positively correlated with depression and impact of negative life events. Since Two-Track Model of Bereavement Questionnaire can also be administered as two tracks, authors examined the relations among two track, depression and impact of negative life events. First track involved problems with social relationships and second track was about the grief process, and they were both positively correlated with depression and impact of negative life events (Ayaz, Karanci, & Aker, 2014).
2.1.2 Grief Models

In the related literature, there are several grief models some of which conceptualize the grief process itself (Five-Stage Model, Hogan’s Grief Reactions Model), and some focus on the coping process (Dual-Process Model, Task Model, Four-Component Model). In order to present a general perspective on the models, Five Stage Model (Kübler-Ross, 1969/2003), Experiential Model (Hogan, Greenfield, & Schmidt, 2001), Four Component Model (Bonanno & Kaltman, 1999), Task Model (Worden, 1982/2009), Meaning Reconstruction Theory (Neimeyer, 1999; Holland, Currier, & Neimeyer, 2006), Dual-Process Model (Stroebe & Schut, 1999), and Two-Track Model of Bereavement (Rubin, 1999b; Rubin et al., 2009) are presented in this section since those are the most comprehensive and popular theories explaining grief experiences.

The Five-Stage Model (Kübler-Ross, 1969/2003) explains the grief process in five stages; (a) denial, (b) anger, (c) bargaining, (d) depression, and (e) acceptance. In the denial stage, the bereaved individual experiences the shock of the death and disbelieves. In the anger stage, bereaved ones start feeling anger towards the deceased, others or themselves, after the first shock. In the third stage, bargaining which is a defense containing rationalization of the death begins. Then, the depressive mood comes in the fourth stage due to the sense of emptiness and loneliness. Finally, in the fifth stage, the individual accepts the reality of death (Kübler-Ross, 1969/2003).

Similarly, Hogan, Greenfield, and Schmidt (2001) define six dimensions of the grief process in Experiential Model; “despair, panic behavior, blame and anger, detachment, disorganization, and personal growth” (pp. 1). Interviewing with the bereaved individuals, authors conceptualized these dimensions of the normal grief process. The despair dimension explains the feelings of sadness, loneliness and helplessness. Second dimension, panic behavior involves the anxiety, panic, and somatic reactions as a result of the stressful situation. In the third dimension, blame and anger, bereaved individuals’ perceptions of irritation, anger, and feelings of unfairness occur. The fourth dimension, detachment includes the changed identity,
social isolation and the lost bonds with the deceased. Fifth, the disorganization dimension defines the concentrating and memory problems of the bereaved ones. Finally, the personal growth dimension includes the sense of becoming more compassionate, mature, optimistic, and forgiving after the loss experience (Hogan, Greenfield, & Schmidt, 2001).

In their emotion and relationship focused Four Component Model, Bonanno and Kaltman (1999) emphasize the importance of “context of the loss, subjective meanings related with loss, changing representations of the lost relationship, and the role of coping and emotion regulation processes” in the coping with grief process (pp. 760). The context of the loss is defined by the reason of death, age and gender of the deceased, relationship with the deceased, social support mechanisms and cultural understandings of death. The second component, subjective meanings related with loss includes the interpretations of daily issues and existential concerns related to death. The third component focuses on the changing representations of the lost relationship over time and emphasizes the influences of the bonds with the deceased after the death. And finally, in the coping and emotion regulation processes, the coping strategies that bereaved individuals use are covered (Bonanno & Kaltman, 1999).

According to the Task Model (Worden, 1982/2009), there are four tasks that bereaving individuals accomplish, (a) accepting the reality of loss, (b) experiencing the pain of grief, (c) adjusting to an environment without the deceased, and (d) relocating the deceased emotionally. First task is to fully understand that the dead one will not return, there will be no reunions, and face with the reality of the death. Second task is defined as feeling the pain after the loss of a loved one. Experiencing emotional and even physical pain is an important task of grief. Three adjustment ways are mentioned in the third task; external (i.e., effects of death on daily functioning), internal (i.e., effects on the bereaved one in terms of sense of self), and spiritual (i.e., effects on bereaved ones’ beliefs, values and assumptions about the world) adjustment. When the bereaved individual accomplishes these tasks, the adjustment process is completed adaptively (Worden, 1982/2009).
Moreover, the Dual-Process Model (Stroebe & Schut, 1999) conceptualizes the coping with bereavement process as a sum and reciprocal relationship of loss-oriented and restoration-oriented stressors. The loss-oriented stressors include the grief work, mostly shaped around the considerations of the deceased and the relationship with the deceased. Intrusions of thoughts and feelings related to grief, focusing and changing the ties with the deceased, ruminative thoughts, and the denial of changes in the relationship and in life are the most frequent loss-oriented stressors. In the restoration-oriented stressors, the bereaved one experiences a period of adapting to life changes, doing new and different things, starting to divert from grief, having new roles/relationships, and because of these changes, the bereaved person experiences distress. These stressors occur simultaneously and reciprocally, also both result in experience of positive and negative emotions (Stroebe & Schut, 1999).

Contrary to the majority of grief theories, Neimeyer (1999) argues that grief process is unique for every individual and in order to understand personal experiences, theories and research should focus on personal meaning reconstruction processes. Meaning reconstruction includes two components; making sense of the loss and finding benefit in the experience of loss of a loved one. Finding a justification to the loss or accepting the loss in philosophical or spiritual terms can be identified as sense-making. Benefit-finding can be seen in such a way that the bereaved finds a benefit (i.e., having stronger bonds with family members, changing life priorities, having a deeper empathic or spiritual understanding of the death and the world, etc.) after the loss experience (Holland, Currier, & Neimeyer, 2006).

Finally, the Two-Track Model of Bereavement (TTMoB) (Rubin, 1999b; Rubin et al., 2009; Rubin, Malkinson, & Witztum, 2003) defines the coping process in two tracks; functioning of the bereaved and the relationships to the deceased. The functioning track includes current emotional, cognitive and social functioning of the bereaved while the relationship to the deceased includes the distance of the relationship before the death, positive and negative emotions related to the deceased, and memorialization of the deceased. In order to understand the grief process of the deceased, both these two tracks are evaluated and functionality and
relational resources of the bereaved one are identified (Rubin, 1999b; Rubin et al., 2009; Rubin, Malkinson, & Witztum, 2003).

2.1.3 Two-Track Model of Bereavement (TTMoB)

The current study used the Two-Track Model of Bereavement (TTMoB) as a background and Two-Track Model of Bereavement Questionnaire was administered to collect data for the analyses. Therefore, a broader explanation of the model and a selection of studies that made use of the model were presented in this section.

As summarized above, most of the theories on grief process are focused on the symptomatic changes from a traumatic perspective or change in the relationship with the deceased. Rubin (1981) suggested a new theory to put these two perspectives together, considering that both changing in the representations of the deceased individual and the symptomatic reactions of the bereaved individuals need to be understood in relation to each other, and the relationship/attachment perspective needs to be emphasized more. At the starting point of the TTMoB, Rubin (1981) suggested that attachment and detachment processes influence the grief reactions, and at the later stages of the loss, personality/symptomatic changes occurs since the attachment/detachment processes are mostly completed. According his view, bereavement process occurs in four stages; (a) the loss has upsetting influence on the bereaved individuals' behaviors, cognitions, and emotions, (b) with the acceptance of the loss, detachment process starts, (c) being focused on the detachment process and changes in the personality, bereaved individual starts mourning, and (d) detachment process is completed and bereaved individuals are able to identify personality changes and representations of the deceased ones separately.

In order to find empirical evidence for his theory, Rubin (1981) collected data from 45 women, 30 of whom experienced loss of their children due to the Sudden Infant Death Syndrome. Of the 30 bereaved mothers, 15 of them experienced the loss within 10 months ($M = 7.47$ months), and the rest experienced the loss in a period of two to six years ($M = 52.33$ months). And 15
participants were in control group, who did not experience the loss. Mean age was 29 for recent loss group, 31.53 for distant loss group, and 28.87 for no loss group. Mean age of the deceased child was 2.93 months for the recent loss group and was 3.93 months for the distant loss group, and the difference was not significant. State and trait anxiety, locus of control, evaluation of present and future, perception of temporariness of present and future, self-vulnerability, present effects of loss, affective involvement, freedom from symptoms, and circumscribed personality change of participants were measured. Results showed that (a) state anxiety was significantly higher in recent loss group than no loss groups, but was not significantly different from distant loss group, (b) evaluation of present and freedom from symptoms were significantly lower in recent loss group than distant loss and no loss groups, (c) when compared two bereaved groups, present effect of loss and affective involvement with the deceased were higher among recent loss group than the distant loss group. These findings revealed that at the first months of the loss, bereaved individuals experience higher levels of anxiety and perceive their environment and functioning poorly. However, during the later stages of the bereavement process, the symptomatic reactions and perceptions of network and self resembles the pre-loss period. Depending on the results, Rubin (1981) suggested that at the first months of the loss experience, affective and personality changes occur and the changes in personality starts declining during the second stage. Affective involvement continues to be an important part of the bereavement process even after personality changes stabilizes.

Looking for the differences in grieving patterns between males and females, Rubin and Schechter (1997) conducted a study with bereaved individuals who experienced loss of their adult sons or spouses. The aim was to understand “differences in functional and social consequences, nature of the relationship with the deceased, and the effect of time” (pp. 281). Participants of the study were 100 bereaved individuals (59 females and 41 males) and half of them were students. The mean age of the student group was 22.3 ($SD = 1.7$), and mean age of the adult group was 50.2 ($SD = 5.4$). Participants responded loss-response questionnaire assessing overt behavioral responses and covert processes on relationship with the deceased, and to vignettes related to loss aimed to measure identity of the deceased, functional
symptoms, interpersonal symptoms, and ongoing relationship with the deceased. Results revealed that (a) the loss of child was more intense than loss of the spouse which appeared in involvement with the loss, pain, problematic response, and necessity of therapeutic intervention, (b) higher levels of symptoms and higher levels of interpersonal problems were associated with greater suffering, greater involvement with loss, higher necessity of therapeutic intervention, and more problematic response, (c) presence of guilt and conflict in the experiences of bereaved were associated with greater suffering and greater involvement with loss, and (d) both overt and covert dimensions of loss and the time passed after the loss were effective on how loss is viewed (Rubin & Schechter, 1997).

Later on, Rubin (1999b) presented a deeper overview of the TTMoB. The model aims to corporate two different lines of research; attachment perspective and functioning perspective considering that two these perspectives are influenced from each other. Although the model aims to focus on the two related domains simultaneously, it also gives freedom to focus on any domains depending on the interventions’ purposes. Track I emphasizes the functioning of the bereaved individual, including anxiety, work and family responsibilities, interpersonal relations, somatic concerns, psychiatric symptoms, depressive mood, investment in life tasks, self-esteem, and meaning reconstruction aspects. Track II emphasizes the relationship with the deceased, including emotional distance, conflict, idealization, imagery and memory, positive and negative emotions to the deceased, impact on self-perception, preoccupation with loss and the lost one, characteristics of loss, and memorialization and transformation of the loss and the lost one (Rubin, 1999b, pp. 685).

In their study, Rubin, Malkinson, and Witztum (2003) argued the close relationship between trauma and bereavement. They argued that for traumatic bereavement definition, only monitoring of the symptomatic reactions of the bereaved individuals’ does not provide sufficient information. Circumstances of the loss (i.e., traumatic death and witnessing criterion) are also important and to be considered. Moreover, since the nature of the bereavement is a stressful event, it has a potential to be a traumatic event. Thus, changes in the relationship are important indicators of trauma and bereavement. Therefore, looking from
a combining perspective provides deeper and fuller understanding of bereavement experiences (Rubin, Malkinson, & Witztum, 2003).

On the measurement side of the theory, Rubin et al. (2009) developed Two-Track Model of Bereavement Questionnaire (TTBQ). The questionnaire consisted of five factors; two factors under Track I (i.e., general biopsychosocial functioning and traumatic perceptions of loss) aimed to measure the functioning of the bereaved, and three factors under Track II (i.e., active relational grieving, close and positive relationship, and conflictual relationship) aimed to measure the relationship aspect. The sample of the scale development study consisted of 354 bereaved individuals (257 females and 78 males) and the mean age was 42.3 (SD = 14.6). Mean time after the loss was 49 months (SD = 32.6) and while the most frequent losses regarding the kinship were loss of child (29.9%), partner (27.6%), and parent (24.7%), the most frequent circumstances were disease (23.4%), accidents (18.1%), sudden medical (17.2%), and army service (14.4%). In order to provide convergent validity, correlations between TTBQ and the Inventory of Traumatic Grief (ITG) were calculated. Relational active grieving, perception of trauma, and general functioning subscales were highly correlated with ITG, .84, .72, and .60 respectively. Depending on these results, Rubin et al. (2009) suggested that relational active grieving subscale assesses “both the phenomenology and response to grieving” (pp. 315). Moreover, in order to provide construct validity, the impact of gender, time after loss, circumstances of loss, and kinship factors on TTBQ variables were examined. Results showed that (a) kinship was a significant predictor of relational active grieving, close and positive relationships, general functioning, traumatic perceptions of loss, and total TTBQ score; that is there were significant differences among parent loss, partner loss, and child loss groups, with child loss group having the most difficult grieving experience, (b) cause of death was a significant predictor of relational active grieving, general functioning, traumatic perceptions of loss, and total TTBQ score; that is there were significant differences among army operation loss, disease, medical sudden loss, accident, terror and suicide groups, with terror, suicide and accident groups having the most difficult grieving experience, respectively, (c) time elapsed since the loss was a significant predictor of relational active grieving, general functioning, traumatic perceptions of loss, and total TTBQ score; that is there were significant differences
among less than 1 year, 1 to 3 years, 3 to 5 years, more than 5 years groups, indicating that participants bereavement for more than 5 years have lower scores than participants with more recent losses, and (d) gender was a significant predictor of close and positive relationship, traumatic perceptions of loss, and total TTBQ score; that is females having more difficult grieving experience than males (Rubin et al., 2009).

Depending on the results, Rubin et al. (2009) provided deeper explanation of the subscales of TTBQ. According to the authors, relational active grieving subscale measures the relational aspect and current degree of grieving. High scores from this subscale indicates an intense contact with the deceased that can be part of the normal grieving process. Thus, relational active grieving subscale provides information about how the bereaved individuals grieve. Close and positive relationships with the deceased subscale provides information about the intensity of the pre-loss relationship between the bereaved and the deceased. Since the experience of a close one is mostly perceived as a shocking and traumatic experience, it results in deeper grief, this subscale is highly correlated with relational active grieving, general functioning and traumatic perception of loss subscales. Conflictual relationships subscale focuses on the difficulties in the pre-loss relationship and current perceptions of these difficulties and the representations of the deceased. General biopsychosocial functioning subscale measures the functioning of the bereaved individual in considerations of social support resources, coping mechanisms, and resilience. Higher scores on this subscale indicates difficulties in the bereaved individuals’ lives and need for assistance. And finally, traumatic perceptions of loss subscale measures difficulties in accepting the loss. Higher scores of the subscale is associated with difficult losses such as sudden loss, losses due to traumatic events, and child losses (Rubin et al., 2009). Moreover, depending on the specific purpose, TTBQ provides a large spectrum of usage and choices for the researchers/practitioners that one can focus on single items, one of the factors, one of the tracks, or the total questionnaire (Rubin, Malkinson, & Witztum, 2011).

More recently, Bar-Nadav and Rubin (2015) explored the differences of functioning and relationship with partner between bereaved and non-bereaved individuals. Participants of the
study were 85 bereaved women who lost their spouse and 87 non-bereaved married women. The mean age of the bereaved group was 29.87 ($SD = 5.85$) and the average length of their romantic relationship with the deceased was 5.94 years ($SD = 5.3$). The average time after the loss was 4.2 years ($SD = 3.2$). The mean age of the non-bereaved group was 26.41 ($SD = 5.15$), and the age difference between two groups was significant, and the average length of their romantic relationship was 4.94 years ($SD = 4.83$). Bereavement/romantic relationship experiences (i.e., for the non-bereaved group, bereavement items of TTBQ were altered so that they measured the current romantic relationship), continuing bonds, close relationship experiences, changes in self-perception, and meaning in life of the participants were measured. Results showed that there were significant differences between bereaved and non-bereaved women in total TTBQ scores, relational active grieving/relational active preoccupation, close and positive relations, conflictual relations, general biopsychosocial functioning, turbulence in the meaning of life/traumatic perception of loss, continuing bonds, avoidance in the experience of close relationships, actualization in meaning of life, self-change, and direction of changes. Moreover, time after the loss had a significant effect on bereavement, that more recent losses were associated with higher levels of bereavement. However, when the subscales were analyzed, only relational active grief was found to be associated with time, and other four subscales were not significantly associated. The final result was showing that more recent losses were associated with higher levels of relational active grieving (Bar-Nadav & Rubin, 2015).

To sum up, Two-Track Model of Bereavement aims to focus on two tracks; the relational and functional aspects of the bereavement simultaneously. The theory suggests that the pre-loss relationship with the deceased influences the perception and experience of loss, which influence the personal changes that also influence the representations of the relationship with the deceased. Since the two tracks are closely related to each other, researchers and practitioners are encouraged to understand both tracks in relation with each other. After the measurement, the theory also provides flexibility to focus on general bereavement process, only the relationship or only the functioning tracks, or on single items during the intervention. In the measurement aspect, Two-Track Bereavement Questionnaire provides five subscales
under the two main tracks; Track I (i.e., functioning track) includes general biopsychosocial functioning and traumatic perceptions of loss, and Track II (i.e., relationship track) includes active relational grieving, close and positive relationship, and conflictual relationship subscales. Bereavement process in general is influenced by these two tracks, assessing cognitive, emotional and social functioning and experiences of the bereaved individuals.

2.2 Cognitive and Emotional Strategies

Previous section explained general grief context, grief theories, and Two-Track Model of Bereavement, which was the main theoretical perspective for the current study. As summarized above, grief and bereavement processes are influenced by several factors; as emotional states and cognitive strategies that bereaved individuals use. In this section, certain cognitive and emotional factors that are hypothesized to influence grief process (i.e., meta-mood, emotion regulation and rumination), and their relations with the grief process were covered. All cognitive and emotional variables in the study were addressed separately and also in relation with grief.

2.2.1 Meta-Mood and Its Relationship with Grief Process

Meta-mood was defined as thinking about the mood, finding the relation between the thoughts and mood, maintaining good moods and if needed, changing bad moods (Mayer, 1986). This mechanism happens at conscious level that through self-reflections, individuals regulate their moods (Mayer & Stevens, 1994). When the individual is aware of his/her moods, finds the differences among different moods, and changes the mood to a better one if needed, that person is in the meta-mood process. That is, meta-experience of mood “consists of thoughts and emotions about the mood” (Mayer & Gaschke, 1988, pp. 102).

Measurement of the meta-mood experience was first carried out by Meta-Mood Experiences Scale (Mayer & Gaschke, 1988) which consisted of five factors; (a) out of control versus under control, (b) confusion versus clarity, (c) acceptance versus rejection, (d) typical versus atypical,
and (e) change versus stability. The 60-item scale was developed to understand the clarity of
the monitoring of mood, the cognitive control on mood, generalizability or typicality of mood,
embarrassment caused by the mood, stability of mood, and need or motivation to alter the
mood. The meta-experience of mood was considered to be on a pleasant-unpleasant spectrum.
Also, the authors argued that meta-mood experiences may have individual differences in
terms of emotional stability. When the individuals experience changes in their emotions, they
reflect their moods and find personal augmentations for unpleasant emotions. However, if the
individuals don't experience a change, they don't need to reflect and thus, they have less
experiences of meta-mood (Mayer & Gaschke, 1988). They also argued that meta-mood
experience has an important role in interpersonal relations. The individuals who feel
understood are more likely to share their meta-mood experiences (Mayer & Gaschke, 1988).

Following Mayer and Gaschke’s (1988) research, Mayer and Stevens (1994) discussed the
influence of personality characteristics on the emotion regulation which will lead to meta-
experience of mood. According to these authors, regulating the emotions at conscious level
leads to the meta-experience. But at the same time, the experience of mood may define the
emotion regulation process of the individual (Mayer & Stevens, 1994). Since regulation and
evaluation are related concepts, Mayer and Stevens (1994) developed a meta-experience scale
with two domains; meta-evaluation and meta-regulation to measure the experienced states.
Meta-evaluation domain consisted of four subscales; clarity (i.e., clearly describing the mood),
acceptance (i.e., approving the current mood), typicality (i.e., defining whether the mood is
typical or not), and influence (i.e., the influence of mood on thoughts). Moreover, meta-
regulation domain consisted of three subscales; repairing (i.e., altering a bad mood into a good
one), dampening (i.e., calming the mood down), and maintenance (i.e., keeping the good mood).
Mayer and Stevens (1994) concluded that individuals who get high scores on clarity and
acceptance subscales have a better understanding of their moods, and also the ones with high
scores on acceptance subscale are more likely to maintain their current mood. The authors also
concluded that pleasant moods are more likely considered to be typical and since those moods
are evaluated as pleasant and typical, they are more likely to be maintained (Mayer & Stevens,
1994).
The scales presented above that were developed to measure the meta-mood experiences reflected the “moment-by-moment changes in reflections about ongoing moods” (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995, pp. 127). However, the meta-mood experience is influenced by more permanent characteristics or strategies of individuals. Thus, considering the stable individual styles on mood regulation and evaluation, Salovey et al. (1995) focused on the traits rather than the states to measure the meta-experience. In order to measure the meta-mood experiences, the authors developed the Trait Meta-Mood Scale which had three dimensions; attention to feelings, clarity of feelings, and repair of mood. Attention to feelings is defined as the ability to define the current feelings, clarity of feelings is the ability to distinguish among emotions; and finally repair of mood is the ability to alter the feelings (Salovey et al., 1995).

In their scale development study, Salovey et al. (1995) investigated the relationships among meta-mood, depression, dissatisfaction with emotional expressions, beliefs about the changeability of negative moods, the tendency to have positive expectations about upcoming events, and the tendency to attend to features of current consciousness (i.e., including mood) in both private and public aspects. The results showed that (a) all three subscales (i.e., attention to feelings, clarity of feelings and repair of mood) were positively correlated to each other, (b) attention to feelings was negatively associated with private self-consciousness and was positively associated with public self-consciousness, (c) clarity of feelings was negatively correlated to dissatisfaction with emotional expressiveness and depression, and (d) repair of mood was negatively associated with depression and was positively associated with optimism about future and beliefs about the changeability of negative mood.

In terms of the relationships among three meta-mood subscales, Salovey, Stroud, Woolery, and Epel (2002) found that attention to feelings was not significantly correlated to clarity of feelings or repair of mood in three studies. Clarity of feelings was positively correlated to repair of mood in Study 1 and Study 2, however the correlation between these variables was not significant in Study 3.
Similarly, in their scale adaptation study conducted with 310 participants (221 females and 86 males) with a mean age of 39.42 (SD = 13.81), Palmer, Gignac, Bates, and Stough (2003) found that attention to feelings was positively correlated to clarity of feelings and repair of mood in Australian sample. They also reported that the relationship between attention to feelings and repair of mood was mediated by clarity of feelings.

Meta-mood and meta-experience of emotions were explored in numerous different studies, investigating their relationships with several concepts as stress (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Salovey, Stroud, Woolery, & Epel, 2002), depression (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Salovey, Stroud, Woolery, & Epel, 2002; Schmidt, 2002), rumination (Bugay, Aksoz, & Erdur-Baker, 2014; Fernandez-Berrocal, Extremera, & Ramos, 2004), social constraints (Schmidt, 2002), burnout (Duran, Extremera, & Rey, 2004), self-esteem (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Salovey, Stroud, Woolery, & Epel, 2002), well-being (Donaldson-Feilder & Bond, 2004), life satisfaction (Bugay, Aksoz, & Erdur-Baker, 2014; Extremera & Fernandez-Berrocal, 2005; Fernandez-Berrocal, Extremera, & Ramos, 2004; Thompson, Waltz, Croyle, & Pepper, 2007), empathy (Fitness & Curtis, 2005; Salovey, Stroud, Woolery, & Epel, 2002), anxiety (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Schmidt, 2002), interpersonal relations (Salovey, Stroud, Woolery, & Epel, 2002), and substance abuse (Limonero, Tomas-Sabado, & Fernandez-Castro, 2006). However, the relationship between meta-mood and grief process was explored by few studies, which mainly focuses on death anxiety (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2013; Espinoza V. & Sanhueza A., 2012) and death attitudes (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2012-2013).

Salovey, Stroud, Woolery, and Epel (2002) aimed to explore the relationships between perceived emotional intelligence (i.e., meta-mood) and stress responses measured in terms of psychological and interpersonal functioning in three separate studies. In Study 1, the relationships among three meta-mood factors (i.e., attention to feelings, clarity of feelings, and repair of mood), empathy, symptom reporting, social anxiety, depression, self-esteem, and satisfaction with interpersonal relationships were examined with a sample of 104 undergraduate students. Of the participants, 71 of them were females and 29 of them were
males and the age range was 16 to 23. The results of Study 1 showed that (a) increase in attention was associated with increase in empathy, (b) increase in clarity of feelings and repair of mood was correlated to lower levels of depression, social anxiety, and symptom reporting, (c) increase in clarity of feelings and repair of mood was correlated to higher levels of satisfaction with interpersonal relationships, and finally (d) increase in all three emotional intelligence factors were correlated to higher levels of self-esteem (Salovey, Stroud, Woolery, & Epel, 2002). Study 2 aimed to explore the relationships among meta-mood factors, negative mood reactivity, trait and state coping, cognitive appraisal and salivary cortisol in lab sessions conducted with 60 women with an age range of 30 to 45. The results of Study 2 showed that (a) increase in repair of mood was negatively correlated to the threatening perception of stressors, trait and state passive coping, (b) increase in clarity of feelings was correlated to negative mood after the stressors, and (c) increase in clarity of feelings was related to lower cortisol levels, showing lower stress; however increase in repair of mood was related to higher cortisol level, showing higher stress (Salovey, Stroud, Woolery, & Epel, 2002). And finally in Study 3, the authors investigated the relationships among three meta-mood factors, salivary cortisol, blood pressure, trait coping, and rumination with 48 undergraduate students. Of the participants, 21 of them were males and 27 of them were females and the age range was 17 to 23. The result of Study 3 indicated that (a) increase in repair of mood was positively associated with active trait coping and distraction following negative mood, and was negatively associated with rumination following negative mood, and (b) increase in attention to feelings was negatively associated with cortisol reactivity and systolic blood pressure activity in response to stress (Salovey, Stroud, Woolery, & Epel, 2002).

In his study, Schmidt (2002) investigated the role of social support, social constraints, emotional intelligence factors, emotional disclosure, expression, along with the disease related variables (i.e., time since the diagnosis, type of surgery, type of treatment, and stage of the decease) on adaptation among breast cancer patients. The sample consisted of 190 women from different stages of breast cancer. The mean age of the participants was 48.3 (SD = 8.9) and the mean of the time since the diagnosis was 30.5 months (SD = 23.4). The results showed that participants who were in a more severe stage of the disease, had their diagnosis more recently,
experienced more constraints and less support from their social environment, and had lower scores of emotional intelligence (i.e., less able to attend to and clarify their emotions, and less able to attempt to regulate their moods), were found to report more depressive symptoms (Schmidt, 2002). The results also showed that when the participants had their diagnosis more recently, perceived more constraints, and attended their emotions more but less repaired their mood, they experienced more intrusive and avoidant cognitions because of the traumatic event they experienced (i.e., cancer). Another finding showed that social constraints and low scores of meta-mood was correlated to higher anxiety. The author also reported that higher levels of social constraints and lower levels of meta-mood was associated with more avoidant cognitions (Schmidt, 2002).

Ghorbani, Bing, Watson, Davison, and Mack (2003) investigated the relationships among meta-mood factors, alexithymia, depression, self-esteem, anxiety, perceived stress, and private self-consciousness in a cross-cultural study with samples from Iran and the United States. The Iranian sample consisted of 231 participants (116 females and 111 males) with a mean age of 21.97 ($SD = 2.91$) and the American sample consisted of 220 participants (86 females and 134 males) with a mean age of 20.30 ($SD = 3.81$). The results showed that attention to feelings was positively correlated to clarity of feelings and repair of mood in both of the samples. Moreover, in both of the samples, there was a significant positive correlation between clarity of feelings and repair of mood. The cross-cultural comparison of other study variables showed that (a) psychological disturbance factors (i.e., perceived stress, anxiety and depression) were positively associated to each other and negatively associated to self-esteem, (b) Americans perceived public and private self-consciousness as predictors of dysfunctioning while Iranians perceived these variables as predictors of adjustment, (c) Americans had higher scores on meta-mood factors and self-esteem and lower scores on alexithymia factors, depression, perceived stress and anxiety than Iranians, and finally (d) Iranians showed higher levels of public self-consciousness than Americans (Ghorbani, Bing, Watson, Davison, & Mack, 2003).
In their study Donaldson-Feilder and Bond (2004) examined the impact of psychological acceptance and emotional intelligence (measured by using the total score from Trait Meta-Mood Scale) on well-being with a sample of 290 participants (51% males and 44% females) with a mean age of 38.18 (SD = 3.98). The results of the correlational analyses showed that emotional intelligence was positively related to acceptance, job control, and physical well-being while it was negatively related to general mental health.

Duran, Extremera, and Rey (2004) investigated the relationships among meta-mood variables, burnout variables (i.e., emotional exhaustion, depersonalization, and personal accomplishment), and engagement to work variables (i.e., vigor, dedication, absorption) in a sample of 112 Spanish workers (42 males and 69 females) with a mean age of 33 (SD = 8.6). The results of the study showed that (a) clarity of feelings was positively correlated to personal accomplishment and dedication and (b) repair of mood was positively related to vigor, dedication, absorption, and personal accomplishment. In the light of the results, the authors suggested that self-efficacy and self-appraisal may be effected by emotional intelligence, which is a personal resource, leading to better engagement to work environment. Also, the authors concluded that repair of mood has the largest impact on burnout and engagement among all three meta-mood factors (Duran, Extremera, & Rey, 2004).

Additionally, Fernandez-Berrocal, Extremera, and Ramos (2004) explored the validity and reliability of the Spanish version of Trait Meta-Mood Scale with a scale of 292 undergraduate students. Of the participants, 208 of them were females and 84 of them were males and the mean age was 22.6 (SD = 3.9). The results showed that (a) clarity of feelings was positively associated with repair of mood, (b) attention to feelings was positively correlated with depression and rumination, (c) clarity of feelings and repair of mood were negatively correlated with depression and were positively correlated with life satisfaction, and finally (d) repair of mood was negatively associated with rumination (Fernandez-Berrocal, Extremera, & Ramos, 2004).
Similarly, Extremera and Fernandez-Berrocal (2005) investigated the relationships among meta-mood, life satisfaction, personality traits and mood states with a sample of 184 undergraduate students (146 women and 38 men) and the mean age was 22.9 ($SD = 4.36$). The results showed that (a) attention to feelings was positively correlated with clarity of feelings, (b) clarity of feelings was positively correlated with repair of mood, (c) attention to feelings was positively associated with depression, tension, neuroticism, and openness, (d) clarity of feelings and repair of mood were positively associated with life satisfaction, vigor, extraversion, and openness (e) clarity of feelings was negatively associated with neuroticism, and finally, (e) repair of mood was negatively associated with depression, tension, anger, and neuroticism (Extremera & Fernandez-Berrocal, 2005).

Fitness and Curtis (2005) examined the relationships among meta-mood factors, empathy, attributional complexity (i.e., the complex reasoning ability of individuals’ in terms of causes and behaviors), self-control, and responses to interpersonal conflict. The sample consisted of 170 undergraduate students (127 females and 43 males) with a mean age of 26 ($SD = 11$). Results of the study indicated that (a) attention to feelings had positive correlations with empathy, attributional complexity, and emotion-oriented coping, (b) clarity of feelings had positive correlations with repair of mood, and self-control, and had negative correlations with destructive responses to conflict, emotion-oriented coping, and avoidant-oriented coping, and finally (c) repair of mood was positively associated with self-control and task, and was negatively associated with destructive responses to conflict and emotion-oriented coping (Fitness & Curtis, 2005).

Meta-mood and its relations with tobacco and cannabis use were investigated by Limonero, Tomas-Sabado, and Fernandez-Castro (2006) with a sample of 133 students (114 women and 19 men). The mean age of the sample was 21.52 ($SD = 5.42$). The results showed that (a) there were no significant differences in attention to feelings and clarity of feelings between smokers and non-smokers, however smokers had higher levels of repair of mood than non-smokers, (b) early smokers had the lowest repair of mood scores, and the highest scores from repair of mood factor was associated with lower levels of tobacco use, and (c) lower levels of clarity of
feelings was associated with higher levels of tobacco use (Limonero, Tomas-Sabado, & Fernandez-Castro, 2006). With regard to cannabis use, the results showed that (a) early cannabis users (i.e., the ones who start using cannabis at an early age) had the lowest repair of mood scores, (b) cannabis users had lower levels of repair of mood than non-users, but no significant difference was found in terms of attention to feelings and clarity of feelings, and (c) repair of mood was negatively associated with cannabis consumption (Limonero, Tomas-Sabado, & Fernandez-Castro, 2006).

In their study, Thompson, Waltz, Croyle, and Pepper (2007) investigated the relationships among emotional intelligence, life satisfaction, positive and negative affect, and somatic symptoms. Their sample consisted of 488 college students with an age range of 18-59 (the modal age was 19, comprising 23.6% of the participants) and 60% were females (n = 293) and 39.9% were males (n = 194). The results of their study showed that (a) higher attention to feelings and negative affect was related to higher somatic symptoms, (b) higher clarity of feelings was related to lower somatic symptoms, and (c) higher repair of mood and positive affect was related to higher life satisfaction (Thompson, Waltz, Croyle, & Pepper, 2007).

The role of meta-mood on stress-coping (i.e., active coping, behavioral avoiding and denegation, cognitive/ passivity/ repression avoiding, and social support search, discharge and affective regulation), quality and quantity of social support (i.e., objective and subjective social support) and mental health was explored by Montes-Berges and Augusto (2007). The sample consisted of 119 college students (93 females and 23 males) and the mean age was 20.33 (SD = 4.39). The result of their study showed that (a) attention to feelings was positively correlated with clarity of feelings, repair of mood, and social support search, (b) clarity of feelings was positively correlated with repair of mood and objective and subjective social support, but was negatively correlated with behavioral and cognitive avoidant coping, (c) repair of mood was positively associated with behavioral and cognitive avoidant coping and mental health, (d) a small variance (5%) of behavioral avoidant coping was explained by attention to feelings and clarity of feelings, (e) a small variance (7%) of cognitive avoidant coping was explained by attention and clarity, (f) a small variance (12%) of objective social
support was explained by clarity, (g) a small variance (11%) of subjective social support was explained by clarity and repair, and finally (h) a small variance (9%) of mental health was explained by repair (Montes-Berges & Augusto, 2007).

More recently, Espinoza V. and Sanhueza A. (2012) explored the relationship between fear of death (i.e., fear of one’s own death, fear of one’s own dying process, fear of death of others, fear of dying process of others) and emotional intelligence (i.e., meta-mood experiences) among university students with a sample of 188 participants. The mean age was 22 (SD = 1.4), 77% of the participants were females, 89% of them reported to experience death of a significant one, and 37% of them reported to feel prepared to talk about death. The results showed that clarity of feeling was negatively correlated to all four subscales of fear of death. That is, when the participants had clearer understanding of their feelings, they had less fear of their own death, less fear of their own dying process, less fear of death of others, and less fear of dying process of others (Espinoza V. & Sanhueza A., 2012). Attention to feelings was found to be positively correlated to fear of one’s own death and fear of one’s own dying process, which can be explained as when the participants attend to their feelings too much, their fear of death level increases. And finally, repair of mood was found to be negatively correlated to fear of the death of others. That is when the individuals have better ability of repairing their mood, they experience less fear of death of others (Espinoza V. & Sanhueza A., 2012).

Similarly, Aradilla-Herrero, Tomas-Sabado, and Gomez-Benito (2012-2013) analyzed the relationship between death attitudes (i.e., fear of death, death anxiety, death depression, and death obsession) and emotional intelligence (i.e., attention to feelings, clarity of feelings, and repair of mood) with 243 nursing students. Of the participants, 214 were females and 29 were men, and the mean age was 21.45 (SD = 4.6). The results showed that attention to feelings was positively associated with fear of death of others and fear of dying of others. Clarity of feelings was found to be negatively correlated to fear of death of others, fear of dying of others, and death anxiety. And finally repair of mood was found to be negatively associated with fear of dying of self, fear of death of others, fear of dying of others, death anxiety, and death depression. To conclude, the participants who paid more attention to their feelings found it
harder to cope with death related issues. However, when the participants had a better understanding and regulating of their emotions, they coped with death related issues better (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2012-2013).

Another study conducted by Aradilla-Herrero, Tomas-Sabado, and Gomez-Benito (2013) explored the relationships among death anxiety, emotional intelligence, alexithymia, and self-esteem with a sample of 1417 nurses and nursing students. Of the participants, 1263 (89.13%) were women and 152 (10.72%) were men, and the mean age was 23.97 (SD = 8.95). The results showed that attention to feelings had a positive correlation with death anxiety, while clarity of feelings and mood repair had a negative correlation. Additionally, self-esteem was negatively associated with attention to feelings, but was positively associated with clarity of feelings and repair of mood. And finally all three factors of alexithymia (i.e., difficulties in identifying feelings, difficulties in describing feelings, and externally oriented thinking) were negatively associated with the three factors of meta-mood (i.e., attention to feelings, clarity of feelings, and repair of mood), except from the positive relationship between difficulties in identifying feelings and attention to feelings. The findings of the study was summarized as (a) females were attending to their emotions more than males, (b) when the participants had more difficulties in describing feelings and had externally oriented thinking, they were less able to attend to their feelings, clarify their feelings and repair their mood, (c) higher self-esteem was related to awareness of emotional skills and better understanding of and managing the emotions, and (d) when the participants attended to their feelings too much, they had greater levels of death anxiety (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2013).

To explore the relationships among meta-mood, rumination and depression, Salguero, Extremera, and Fernandez-Berrocal (2013) conducted a study with 1154 individuals (61.3% female and 38.7% male) with a mean age of 26.21 (SD = 13.45). The results of the bivariate correlations showed that (a) attention to feelings was positively associated with clarity, repair, rumination, and depression, (b) clarity of feelings was positively associated with repair of mood and was negatively associated with rumination and depression, and (c) repair of mood was negatively associated with rumination and depression. The results of the path analysis
also showed that (a) attention to feelings had a positive direct effect on depression while clarity and repair had negative direct effects, (b) attention to feelings had a positive direct effect on rumination while repair of mood had a negative direct effect, and (c) rumination played a mediating role on the relationship between meta-mood and depression (Salguero, Extremera, & Fernandez-Berrocal, 2013).

Finally, Bugay, Aksoz, and Erdur-Baker (2014) examined the reliability and validity of Turkish version of Trait Meta-Mood Scale with regard to depression, life satisfaction, and rumination. The sample consisted of 387 college students (271 females and 113 males) with a mean age of 21.77 (SD = 1.65). The results showed that (a) attention to feelings was negatively correlated with depression, (b) both clarity of feelings and repair of mood were positively correlated with life satisfaction but were negatively correlated with rumination and depression.

2.2.2 Emotion Regulation and Its Relationship with Grief Process

Emotion regulation is an emotional strategy that is closely related with the current study’s variables such as social constraints, rumination, and bereavement, and it is also concerned with the awareness, examination, evaluation and modification of emotions. Studies explored different aspects of emotion regulation and defined the strategy with different words. Such as Cole, Michel, and Teti (1994) defined emotion regulation as the process of responding to the events depending on the individuals’ experience of emotions in a socially acceptable manner. Gratz and Roemer (2004) suggested an integrative conceptualization and formulated emotion regulation in a way to include (a) awareness and understanding of emotions, (b) acceptance of emotions, (c) ability to control and direct behaviors through goals when experiencing negative emotions, and (d) ability to use appropriate emotion regulation strategies. Moreover, Koole (2009) indicated that individuals’ ability to control their feelings and how their feelings direct their behaviors and attention is the main research area of emotion regulation.

According to Gross and Munoz (1995) emotion regulation can occur in two ways: (a) regulating something by emotions (i.e., all the emotions individuals have regulate their
behaviors), and (b) regulating the emotions (i.e., individuals’ effort to influence their emotions to define and decide how to express them). Thus, emotion regulation may be antecedent-focused or response-focused. In antecedent-focused regulation of emotion, regulation starts before the emotion emerges. On the other hand, in response-focused regulation of emotion, the emotion emerges and then the regulation starts (Gross & Munoz, 1995). Moreover, antecedent-focused emotion regulation and response-focused emotion regulation have a reciprocal relationship which makes it hard to distinguish. Emotion regulation is also a skill that keeps developing during the lifespan, and especially during the adulthood, it is a necessity of healthy functioning. Interpersonal relationships and inner sense require emotion regulation skills to keep the mental functioning at a healthy level. Also, according to biological, cognitive-behavioral, and interpersonal theories; emotion regulation has an important role in depression (Gross & Munoz, 1995) that makes it a popular research topic to understand and find solutions to depression and related mental health problems. Emotion regulation may serve as an (a) assessment to understand the depressed individuals’ current emotional circumstances, the personal meaning of those circumstances, and the unique strategies that depressed individuals use to manage their emotions, (b) treatment since it provides an integrated perspective with the help of pharmacological, cognitive-behavioral and interpersonal interventions, and (c) prevention by helping the depressed individuals understand their appraisal and suppression mechanisms that trigger their depressed mood, and learn how to express their emotions (Gross & Munoz, 1995).

Later, Gross (1998a) defined reappraisal as a form of antecedent-focused emotion regulation and suppression as a form of response-focused emotion regulation and compared these two strategies. Reappraisal was defined as “reframing an event objectively and focusing on technical aspects of the event to change the emotion” and suppression was defined as “not letting the emotions show and pretending as not feeling that emotion at all”. In a study with 120 college students (60 females and 60 males) with a mean age of 21 ($SD = 4.1$), Gross (1998a) investigated the effects of antecedent-focused emotion regulation (i.e., reappraisal) and response-focused (i.e., suppression) emotion regulation strategies on negative emotions. Participants were randomly assigned to reappraisal, suppression and control groups, keeping
all three group at the same sample size. The results showed that participants using reappraisal strategy reported less negative emotions than the control group and showed less behavioral signs of negative emotion. Moreover, the participants using suppression strategy showed less emotions than the control group but showed as much behavioral signs of negative emotion as the control group. Depending on the results, Gross (1998a) suggested that reappraisal was an effective strategy to decrease the negative emotions where suppression was ineffective to keep the individuals away from feeling negative emotions.

In another study, Gross (1998b) explained emotion regulation as a process that individuals impact the emotions that they have, when and how they experience those emotions and how they express their emotions. In addition, emotion regulation occurs in two ways, cognitive reappraisal and expressive suppression. When the individuals evaluate the events objectively and focus on the technical aspects of them, reappraisal process occurs and they feel free to experience and express their emotions. However, when the emotions are not allowed to be experienced and expressed, individuals suppress their emotions (Gross, 1998b).

With further investigation, Gross (2002) concluded that reappraisal strategy is more effective than the suppression. Because reappraisal decreases the level of behavioral expression and emotional experience while making no harm to the memory attached to the emotion, on the contrary, suppression decreases the level of behavioral expression while failing to decrease the emotional experience and also damaging the memory. Furthermore, the author suggested a relationship between emotion regulation strategies and social interaction in a way that reappraisal has positive consequences on social interaction while suppression has negative consequences (Gross, 2002).

Over the years, emotion regulation was investigated in several studies and researchers explored the relationship of this strategy with different variables such as well-being (Gillanders, Wild, Deighan, & Gillanders, 2008; Gross & John, 2003; Haga, Kraft, & Corby, 2009), functioning (Balzarotti, John, & Gross, 2010; Gillanders, Wild, Deighan, & Gillanders, 2008), meta-mood and emotional awareness (Boden & Thompson, 2015; Gross & John, 2003),
anxiety (Gillanders, Wild, Deighan, & Gillanders, 2008; Llewellyn, Dolcos, Iordan, Rudolph, & Dolcos, 2013; Moore, Zoeliner, & Molenholt, 2008; Witlink et al., 2011), depression (Ehring, Tuschen-Caffier, Schnüll, Fischer, & Gross, 2010; Forkmann, Scherer, Pawelzik, Mainz, Druke, Boecker, & Gauggel, 2014; Gillanders, Wild, Deighan, & Gillanders, 2008; McLean, Miller, & Hope, 2007; Moore, Zoeliner, & Molenholt, 2008; Witlink et al., 2011), alexithymia (Laloyaux, Fantini, Lemaire, Luminet, & Laroi, 2015), substance abuse (Mohajerin, Dolatshahi, Pour Shshbaz, & Farhoudian, 2013; Xin et al., 2014), rumination (Arditte & Joormann, 2011; Fresco et al., 2007; Gross & John, 2003; Moore, Zoeliner, & Molenholt, 2008), social support and constraints (Gillanders, Wild, Deighan, & Gillanders, 2008; Gross & John, 2003; Witlink et al., 2011), and bereavement (O’Connor, Allen, & Kaszniak, 2002; Znoj & Keller, 2002).

Gross and John (2003) explored the relationship between emotion regulation and well-being, affect and social interactions in five studies. Sample of the Study 1 consisted of four different sample sets of undergraduate college students. Sample A included 791 students (67% females and 5% African Americans, 41% Asian Americans, 28% European Americans, and 9% Latinos) with a mean age of 20, Sample B included 336 students (63% females and 4% African Americans, 40% Asian Americans, 33% European Americans, and 16% Latinos) with a mean age of 20, Sample C included 240 students (50% females and 2% African Americans, 24% Asian Americans, 56% European Americans, and 15% Latinos) with a mean age of 20, and Sample C included 116 students (64% females and 3% African Americans, 26% Asian Americans, 55% European Americans, and 9% Latinos) with a mean age of 18. The results showed that there was a significant gender difference in suppression, with males showing higher scores. However, there were no significant gender differences for reappraisal. Ethnical comparisons were done with the Sample A and Sample B, and results indicated that European Americans reported significantly lower levels of suppression than the other ethnic groups. There were no significant differences among the minority groups. Also, there were no significant ethnic differences in terms of reappraisal (Gross & John, 2003).

Sample of Study 2 consisted of four samples (i.e., Sample A, Sample B, Sample C and Sample D) of Study 1 and Sample E with 145 students (73% females) and the mean age was 20 (Gross
In the Study 2, the aim was to explore the relationships among emotion regulation, meta-mood factors, rumination, and coping. The results of Study 2 revealed that (a) reappraisal was positively associated with coping through reinterpretation and suppression was negatively associated with coping through venting, (b) reappraisal was positively correlated with repair of mood and suppression was negatively correlated with all three meta-mood factors (i.e., attention to feelings, clarity of feelings and repair of mood), (c) reappraisal had a positive relationship with efficacy of negative mood regulation while suppression had a negative relationship, and (d) there was a small but significant positive relationship between suppression and rumination (Gross & John, 2003).

The third part of Gross and John’s study (2003) investigated the relationships among emotion regulation, emotion experience, emotion expression and inauthenticity. Participants of this study was Sample E with 145 students (73% females) and the mean age was 20. The results showed that (a) reappraisal was related with higher scores on both experience and expression of positive emotions, (b) reappraisal was related with lower scores on both experience and negative expression of negative emotions, (c) suppression was related with lower scores on both experience and expression of positive emotions, and (d) suppression was related with higher scores on experience of negative emotions but there was no significant relationship between suppression and expression of negative emotions (Gross & John, 2003).

In Study 4, Gross and John (2003) explored the impact of using emotion regulation strategies on the social interactions (i.e., sharing the emotions, having close relationships and social support) of the individuals. Participants of this study was 240 students (56% females) drawn from Samples B, C, D and E. The results indicated that (a) reappraisal was positively associated with sharing both positive and negative emotions but not related to attachment and social support variables, (b) individuals using reappraisal were the ones having closer relationships, (c) suppression was negatively associated with sharing both positive and negative emotions, and (d) individuals using suppression were perceived as avoidant in their social interactions (Gross & John, 2003).
Finally, the impact of emotion regulation on depression, well-being, life satisfaction and optimism was explored in Study 5 (Gross & John, 2003). Samples C and E of the previous studies and Sample F consisting of 210 students (73% females) with a mean age of 21 were used for this study. The results suggested that (a) individuals using reappraisal strategy had lower scores of depression and higher scores of life satisfaction, well-being, optimism, and self-esteem, and conversely (b) individuals using suppression strategy had higher scores of depression and lower scores of life satisfaction, well-being, optimism, and self-esteem (Gross & John, 2003).

Similarly, Gillanders, Wild, Deighan, and Gillanders (2008) investigated the relationships among emotion regulation, affect, well-being, and psychosocial functioning with a sample of 106 hemodialysis patients. Of the participants, 48 were males and 58 were females and the mean age was 64, ranging between 19 and 87 (SD = 15.1). Results of the study revealed that (a) reappraisal was positively associated with experience and expression of positive emotions and was negatively associated with experience and expression of negative emotions, (b) suppression was negatively associated with expression of positive emotions, (c) there was no significant association between reappraisal and coping strategies however suppression was negatively correlated with coping, (d) suppression was negatively associated with satisfaction with the social support, (e) reappraisal was negatively associated with anxiety and was positively associated with acceptance, and (f) suppression was not correlated with anxiety but was positively correlated with depression, somatization and dissatisfaction with the time the disease keeping them busy (Gillanders, Wild, Deighan, & Gillanders, 2008).

In another study exploring the cross-cultural relationship between emotion regulation and well-being (i.e., measured by level of depression, satisfaction with life and positive and negative emotions), Haga, Kraft, and Corby (2009) had a sample of 489 psychology students from three different countries. The sample consisted of 349 women and 140 men from the United States, Australia and Norway, and the mean age was 22.6, ranging from 17 to 65. The results showed that (a) for the total sample, participants used reappraisal more than suppression, (b) Americans reported more use of suppression more than Norwegians and
Australians, while Australians reported more use of reappraisal than the Norwegians, (c) reappraisal was positively correlated with positive affect and satisfaction with life and was negatively correlated with negative affect and depressed mood, and (d) suppression was positively correlated with negative affect and depressed mood and was negatively correlated with positive affect and satisfaction with life (Haga, Kraft, & Corby, 2009).

Lockwood, Seara-Cardoso, and Viding (2014) investigated the nature of the relationships among emotion regulation, empathy, and prosocial behavior with a sample of 110 adults. Of the participants, 50% were females and 50% were males and the mean age was 21.9 ($SD = 3.7$). The results suggested that (a) affective empathy and cognitive empathy were positively correlated with prosocial tendencies, (b) reappraisal was positively associated with prosocial tendencies but suppression was negatively associated, (c) for the individuals with low and average levels of reappraisal, affective empathy and prosocial behavior was positively associated and (d) unrelated with the level of reappraisal or suppression, cognitive empathy and prosocial behavior was positively correlated. Overall, results suggested that empathy and prosocial behavior was associated with each other regardless of the level of emotion regulation strategies individuals use (Lockwood, Seara-Cardoso, & Viding, 2014).

McLean, Miller, and Hope (2007) explored the role of suppression on social anxiety and eating disorders with 160 undergraduate students. All of the participants were females and the mean age was 19.96 ($SD = 1.2$). Results revealed that (a) disordered eating was positively correlated with depression, social anxiety, negative emotion and suppression, (b) suppression was positively associated with disordered eating, social interaction anxiety, and depression, and (c) suppression mediated the relationship between social interaction anxiety and disordered eating, and the relationship between depression and negative emotion and disordered eating (McLean, Miller, & Hope, 2007).

Exploring the relationships among emotion regulation, depression, and positive and negative emotions, Ehring, Tuschen-Caffier, Schnülle, Fischer, and Gross (2010) conducted a study with 73 college students (30 recovered from depression and 43 never depressed). Results showed
that there were no differences of reappraisal or suppression between never depressed group and recovered from depression group. Furthermore, participants using reappraisal strategy reported less negative emotions than the participants using suppression strategy (Ehring et al., 2010).

Likewise, Witlink et al. (2011) investigated the relationships among emotion regulation, depression, anxiety and social support in a sample of 2524 individuals from Germany. Of the participants, 1374 (55.5%) were females and 1381 (55.8%) had a partner and the mean age was 49.4 ($SD = 18.2$). Results of the study revealed that reappraisal was negatively correlated with depression and anxiety, while suppression was positively correlated with both depression and anxiety. In terms of social support, participants who had a partner had lower scores of suppression. However, social support and using of reappraisal was not associated. And finally, reappraisal was associated with lower depression scores while suppression was associated with higher depression scores, lower educational level, and lower income (Witlink et al., 2011).

Furthermore, Llewellyn, Dolcos, Iordan, Rudolph, and Dolcos (2013) examined the relationships among emotion regulation, regulatory factors (i.e., promotion focused regulation and prevention focused regulation) and anxiety. Participants of the study were 179 young adults (110 females and 69 males) with a mean age of 22.65 ($SD = 4.39$) for females and 22.28 ($SD = 3.43$) for males. Results indicated that reappraisal was positively related with promotion focused regulation and was negatively related with anxiety. On the contrary, suppression was negatively correlated with promotion focused regulation and was positively correlated with anxiety. Moreover, both reappraisal and suppression mediated the relationship between promotion focused regulation and anxiety (Llewellyn et al., 2013).

In their study, Panno, Lauriola, and Figner (2013) investigated the role of emotion regulation on risky choices with a sample of 53 undergraduate students. Of the participants, 66% were females and the mean age was 21.73 ($SD = 4.05$). Results showed that reappraisal was positively associated with risky choices while suppression was negatively associated.
Moreover, suppression was negatively associated with positive affect and was positively associated with negative affect. However, there were no significant associations among reappraisal and positive and negative affect (Panno, Lauriola, & Figner, 2013).

Moreover, Mohajerin, Dolatshahi, Pour Shshbaz, and Farhoudian (2013) explored the use of emotion regulation strategies among male substance abusers. Participants were 140 substance abusers (70 opioid user and 70 methamphetamine user) with a mean age of 32.75 (SD = 8.35). The results showed that methamphetamine users were using more reappraisal strategy than opioid users while opioid users were using more suppression strategy than methamphetamine users. The authors concluded that opioid users suffer for depression more than methamphetamine users and the findings of the study figures out the relationship between depression and emotion regulation strategies (Mohajerin, Dolatshahi, Pour Shshbaz, & Farhoudian, 2013).

Similarly, Xin et al. (2014) explored the use of emotion regulation strategies among male heroin abusers. The sample of the study consisted of 25 heroin abusers with a mean age of 35.3 (SD = 8.5) and 25 non-abusers with a mean age of 31.5 (SD = 9.8). The results showed that the heroin abusers used significantly less reappraisal than the non-abuser control group, however, there was no significant difference between abusers and non-abusers in terms of use of suppression (Xin et al., 2014).

Continuing with stressful life events, Reber, Boden, Mitragotri, Alvarez, Gross, and Bonn-Miller (2013) investigated the relationship between emotion regulation and mindfulness (i.e., acting with acceptance, observing, describing, and nonjudgmental acceptance skills) among veterans with posttraumatic stress disorder (PTSD). The sample of the study consisted of 50 male veterans with a mean age of 44.6 (SD = 14.3) who participated in a 14-session treatment for PTSD. The results showed that there were no significant correlations between suppression and mindfulness skills at intake, however, reappraisal was positively correlated with observing, describing, and nonjudgmental acceptance at intake. Moreover, during the treatment 42% of the participants increased their use of suppression while 50% decreased. On
the other hand, use of reappraisal observed to increase or remain stable for 76% of the participants during the treatment. Additionally, participants who had higher scores on nonjudgmental acceptance at the beginning of the treatment experienced decrease in suppression, however, participants who had lower scores on nonjudgmental acceptance at the beginning of the treatment experienced no decrease. And finally, regardless of their nonjudgmental acceptance scores, all participants experienced increases in use of reappraisal strategy (Reber et al., 2013).

Forkmann, Scherer, Pawelzik, Mainz, Drueke, Boecker, and Gauggel (2014) investigated the effect of cognitive behavior therapy (CBT) on emotion regulation strategies among depressed individuals. The sample of the study consisted of 44 individuals (63.6% females) with a mean age of 36.4 ($SD = 13.4$). Results revealed that suppression was positively correlated with depression before the treatment. Also, there were significant differences for depression and reappraisal scores between pre-treatment and post-treatment measurements, showing that the treatment was effective and reduced the depression scores and increased the reappraisal use. However, there was no significant difference for suppression scores across treatment. And, reappraisal was negatively associated with depression scores after the treatment, showing that individuals using reappraisal strategy experienced less depressive symptoms after the treatment (Forkmann, Scherer, Pawelzik, Mainz, Drueke, Boecker, & Gauggel, 2014).

In another study, Forkmann, Scherer, Böcker, Pawelzik, Gauggel, and Glaesmer (2014) explored the relationships among emotion regulation strategies, suicidal ideation and suicidal desire with 232 mental health patients (69.4% females) with a mean age of 37.5 ($SD = 13.4$). Of the participants, 102 reported to have suicidal ideation, 20 reported to have suicidal desire and 9 reported to have suicidal intent. Results showed that participants with suicidal ideation and desire reported higher use of suppression than those who did not have suicidal ideation and desire. Also, participants with suicidal ideation reported lower scores of reappraisal than those who did not have suicidal ideation. Results of the model fit showed that suppression predicted suicidal ideation and suicidal ideation predicted suicidal desire. However, suicidal ideation did not predict suicidal desire significantly. And reappraisal predicted neither
suicidal ideation nor suicidal desire significantly (Forkmann, Scherer, Böcker, Pawelzik, Gauggel, & Glaesmer, 2014).

More recently, Laloyaux, Fantini, Lemaire, Luminet, and Laroi (2015) investigated the relationship between emotion regulation and alexithymia with a sample of 255 college students. Of the participants, 69.1% were females and the mean age was 20.05 (SD = 2.78). Results indicated that there were significant positive correlations between suppression and alexithymia total score and all subscales (i.e., difficulties in verbalizing emotions, difficulties in identifying emotions, and externally oriented thinking). There were no significant correlations between reappraisal and alexithymia total score and the subscales. Moreover, females were found to use less suppression strategy than men. But there was no significant gender difference for reappraisal strategy (Laloyaux, Fantini, Lemaire, Luminet, & Laroi, 2015).

Boden and Thompson (2015) searched for the relationships among emotional awareness (i.e., measured by type clarity, source clarity, voluntary attention, and involuntary attention), emotion regulation and depression. The sample consisted of 919 adults (66.9% females) with a mean age of 35.4 (SD = 13.1). Results of the study revealed that (a) reappraisal was positively associated with suppression, but was not significantly associated with acceptance, (b) there was a negative association between suppression and acceptance, (c) type clarity was positively associated with acceptance and reappraisal, but was not significantly correlated with suppression, (d) source clarity was negatively associated with suppression, (e) voluntary attention was negatively correlated with suppression and was positively correlated with both acceptance and reappraisal, (f) involuntary attention was negatively correlated with attention, and finally (g) suppression was positively correlated with depression while acceptance was negatively correlated and reappraisal was not significantly correlated (Boden & Thompson, 2015).

In the related literature, the role of emotion regulation was also considered in terms of its relations with other variables used in the current study (i.e., rumination, meta-mood and
social constraints). Fresco et al. (2007) explored the associations among emotion regulation, rumination, depression and anxiety with a sample of 61 college students. Of the participants 34 were females and the mean age was 19.81 (SD = 2.87). The results indicated that brooding was positively associated with suppression, depression and anxiety but was not significantly correlated with reappraisal. Also, suppression was positively correlated with depression and anxiety. Reappraisal had no significant correlations (Fresco et al., 2007).

Similarly, Moore, Zoeliner, and Molenholt (2008) explored the relationships among emotion regulation, rumination, anxiety and depression in a non-clinic versus posttraumatic stress disorder diagnosed group. The non-clinic group consisted of 289 female undergraduate students with a mean age of 19.09 (SD = 3.60) and the trauma exposed group consisted of 62 women with a mean age of 29.48 (SD = 13.42). The results revealed that reappraisal was negatively associated and suppression was positively associated with psychopathology symptoms for the trauma exposed group. Moreover, reappraisal was negatively associated with depression in college sample, and was negatively associated with state and trait anxiety in trauma exposed group. Additionally, suppression was positively associated with anxiety sensitivity and depression in college sample, and was positively correlated with PTSD severity, trait anxiety and depression in trauma exposed group (Moore, Zoeliner, & Molenholt, 2008).

Moreover, Arditte and Joormann (2011) examined the relationship between emotion regulation, rumination and depression, as well. Participants of the study were 40 depressed individuals (63% females) with a mean age of 38.3 (SD = 10.9). Results of the study showed that at Time 1 (i.e., intake session) there were no differences of using emotional regulation strategies between currently depressed and recovered-depressed group. However, the currently depressed group reported less use of reflection than the recovered-depressed group. Also, for the whole sample, brooding had a positive correlation with reflection and suppression at Time 1. Considering the differences between Time 1 and Time 2, results showed that having high depression scores at Time 1 was associated with higher scores of depression at Time 2. Furthermore, reflection scores at Time 1 were negatively correlated with
depression scores at Time 2. And finally, no other emotion regulation variables (i.e., brooding, reappraisal, and suppression) were significantly predicted depression scores at Time 2 (Arditte & Joormann, 2011).

In their scale adaptation study, Ionnidis and Siegling (2015) explored the relationships among emotion regulation, rumination, personality factors (i.e., openness, neuroticism, conscientiousness, extraversion, and agreeableness), mindful coping, and social anxiety. The sample consisted of 203 adults (145 females) with a mean age of 22.7 (SD = 5.7). The results showed that reappraisal was positively associated with suppression, agreeableness, conscientiousness, positive affect, flexibility, preventing negative emotion, and constructive self-assertion, and was negatively associated with neuroticism, negative affect, and worry. Also, suppression was positively correlated with social anxiety, and was negatively associated with neuroticism, extraversion, agreeableness, positive affect, and worry. No significant associations were found between rumination and emotion regulation factors, but reappraisal was negatively related to rumination and suppression was positively related (Ionnidis & Siegling, 2015).

Balzarotti, John, and Gross (2010) also conducted a scale adaptation study and examined the role of emotion regulation on coping, affect, personality factors and social support (i.e., measured by instrumental support, emotional support and social diversion). Four hundred and sixteen students (68.5% females) participated in the study and the mean age was 21.6 (SD = 3.01). Results showed positive associations between reappraisal and reinterpretation coping, positive affect, extraversion, openness, conscientiousness, agreeableness, and instrumental support, and negative associations between reappraisal and negative affect and neuroticism. Furthermore, suppression was negatively associated with venting coping, positive affect, extraversion, neuroticism, openness, agreeableness, instrumental support, emotional support and social diversion (Balzarotti, John, & Gross, 2010).

Furthermore, considering the role of emotion regulation in grief and bereavement, Bonanno and Kaltman (1999) suggested an integrative framework for grief process including “context,
meaning, representations of the lost relationship, and coping and emotion regulation” steps (pp. 760). With regard to the final step, authors suggest that coping strategies including emotion regulation have important roles on adjustment to the loss of a loved one. Since regulating the emotions promotes positive emotions, this strategy helps individuals adjust to the loss by enhancing their functioning (Bonanno & Kaltman, 1999).

In their study O’Connor, Allen, and Kaszniak (2002) examined the relationship among the coping strategies, depressive symptoms, heart rate and heart rate variability of bereaved individuals. Thirty individuals participated in the study, 10 in bereaved group, 10 in depressed group and 10 in control group. For all three groups, 80% of the participants were females and the mean ages were 32.6 (SD = 9.41) for bereaved group, 33.7 (SD = 8.86) for depressed group and 35.4 (SD = 14.11) for the control group. The results showed that (a) bereaved group had the highest heart rate values, (b) for the bereaved group, adaptive coping strategies (i.e., emotional acceptance and active coping) were positively correlated with heart rate variability and were negatively correlated with heart rate, and (c) for the bereaved group, maladaptive coping strategies (i.e., questioning and passive coping) were negatively correlated with heart rate variability and were positively correlated with heart rate. Thus, the authors suggested that emotion regulation and coping strategies are closely related with physical health of bereaved individuals (O’Connor, Allen, & Kaszniak, 2002).

Finally, Znoj and Keller (2002) explored the relationships among emotion regulation, depressive symptoms, coping, posttraumatic stress and physical health with a group of bereaved parents and a control group with traumatic experiences, including loss of a loved one. Emotion regulation strategies were measured by EMOREG scale that has four subscales: effortless (automatic) regulation, expression, avoidance, and distortion. The bereaved sample consisted of 176 parents (117 females and 59 males) with a mean age of 42.35 (SD = 10.45) and the average of time since the child loss was 5.10 years (SD = 5.39). Control group consisted of 124 adults (72 females and 52 males) with a mean age of 43.74 (SD = 7.47). Results of the study showed that bereaved group had significantly higher levels of intrusion and hyperarousal than the control group. For the bereaved group, expression had significant positive
correlations with effortless control and intrusion, and had significant negative correlation with avoidance. Effortless control was positively correlated with general health but was negatively correlated with avoidance, distortion, and depression. Avoidance was positively associated with distortion, intrusion, hyperarousal, avoidance (i.e., posttraumatic stress factor), and depression, but was negatively associated with general health. And finally, distortion was positively correlated with intrusion, hyperarousal, avoidance (i.e., posttraumatic stress factor), and depression and was negatively correlated with general health. Also, results showed that bereaved group had higher scores of emotion regulation strategies than the control group (Znoj & Keller, 2002).

2.2.3 Rumination and Its Relationship with Grief Process

For decades, researchers investigate the sex differences in depression and the reason of these differences. The most common explanations can be grouped under five categories; (a) artifact, (b) biological, (c) psychoanalytic, (d) sex role, and (e) learned helplessness. Since these five explanations observed to fail to explain the sex differences better than another, a new perspective was proposed to examine the response styles of individuals. This new perspective suggests to look for the responses to depressive mood rather than looking for the initial resources (Nolen-Hoeksema, 1987). The response styles perspective was supported by the findings showing that men actively distract themselves from the depressed mood but women show a tendency to be inactive and focus on the reasons and consequences of their depressed mood. Rumination is simply the process of concentrating on feelings and personal concerns instead of trying to find solutions for the problems (Nolen-Hoeksema, 1998), the style that women respond to depressive mood. Also it was argued that, ruminative response style leads to longer recovery from depression (Nolen-Hoeksema, 1987).

To better investigate the impact of ruminative response styles on recovery from depressive mood, Nolen-Hoeksema and Morrow (1991) conducted a study with 137 college students who experienced a serious earthquake. Response styles, depression scores and PTSD symptoms were measured 14 days before the earthquake, 10 days after the earthquake and 7 weeks after
the earthquake. Post-earthquake depression scores after 10 days were associated positively with pre-earthquake depression, stress, ruminative responses and negatively by distracting responses. Moreover, post-earthquake depression scores after 7 weeks were associated positively only with ruminative responses. Post-earthquake PTDS symptoms after 10 days were positively correlated with pre-earthquake PTDS symptoms, stress and ruminative responses. In the light of the results, authors suggested that individuals who ruminate more were more depressed after 7 weeks, showing the negative impact of ruminative responses on recovery from depression (Nolen-Hoeksema & Morrow, 1991).

When the individual focuses on the negative past memories, it leads to a more pessimistic mood and to the continuity of negative cognitions and depressive symptoms (Nolen-Hoeksema, 2001). Rumination may be used as a coping mechanism in which the individual focuses on the negative emotions and the meanings of these emotions in a passive manner (Nolen-Hoeksema, Parker, & Larson, 1994).

In another study, Nolen-Hoeksema, Parker, and Larson (1994) focused on the ruminative coping with the depressed mood after the loss of a loved one. Participants of the study were 253 (71% females and 29% males) adults who experienced loss of a loved one within a month. The mean age was 51 (SD = 14.08) and 59% of the participants were the main caregivers of deceased ones when they were alive. Depression scores, ruminative styles, optimism-pessimism orientations, perceptions of social support (i.e., isolation, confidant available, affirmation, practical help, and friction) and number of stressful life events of the participants were measured one month and 6 months after the loss. The results of the study showed that depression scores had a significant decrease between 1-month and 6-month measurements, however there were no significant differences in terms of rumination scores. At the 1-month measurement, rumination was positively correlated with additional stressors, isolation, friction and depression and was negatively correlated with optimism and affirmation. At the 6-month measurement, the relations were the same for rumination. And finally a model was tested to understand the relationships among rumination, optimism, gender, additional stressors, social support, depression at 1 month and depression at 6 months intervals. Results
of the model test showed that female gender, number of stressors, less supportive social environment, and higher scores of depression at 1 month were related to higher scores of rumination at 1 month. Also, rumination was a mediator between these variables and pessimism. Moreover, number of stressors, depression at 1 month, rumination and pessimism had significant direct effects on depression at 6 month. Finally, bereaved individuals using ruminative coping were pessimistic about the future in 1-month period after the loss, and reported higher levels of depressed mood in 6-months period. In accordance with the findings of the study, it can be concluded that rumination is a maladaptive way of coping with the loss and is related to poor social relations. When the bereaved individuals are isolated from the environment and cannot find affirmation, they are more likely to use ruminative responses which consequently make the adjustment to the loss more difficult (Nolen-Hoeksema, Parker, & Larson, 1994).

Nolen-Hoeksema, McBride, and Larson (1997) conducted a longitudinal study and examined the impact of rumination on stress of loss of a loved one. Participants of the study were 30 bereaved males whose partners died of HIV-positive and HIV-negative and they were interviewed once in two months after the loss of their partners. Comparing the 1-month and 12-month scores, results showed that rumination was negatively correlated with self-analysis. That is, participants with higher levels of rumination reported to spend less time on their relationship with the deceased and on the impact of the loss on their life. Also, participants with higher rumination levels at 1-month had higher scores of depressed mood and impact of events, but lower scores on positive states of mind and positive morale. The results at 12-month showed that participants with higher rumination levels had higher scores of impact of events but lower scores of positive states of mind. Thus, men with higher rumination had lower levels of well-being in both 1-month and 12-month after the loss measurements (Nolen-Hoeksema, McBride, & Larson, 1997).

Since the Ruminative Response Styles Scale consisted of items related to depression, Treynor, Gonzalez, and Nolen-Hoeksema (2003) made an elimination of scale items and discarded the depression related items. Therefore, they aimed to understand if the relationship between
rumination and depression occurs because of the context of the measurement or these two constructs are statistically and literally related. The final form of the scale consisted of 10 items, grouped under two factors; reflection and brooding. Reflection was measuring the active beneficial self-monitoring actions conducted in order to understand the depressed mood, and brooding was measuring the passive harmful actions conducted to compare the current mood with a desired but unachieved mood. Thus, reflection was an adaptive way of rumination while brooding was the maladaptive way. Moreover, reflection was associated with less depression while brooding was associated with more depression (Treynor, Gonzalez, & Nolen-Hoeksema, 2003).

Besides depression, rumination was associated with several concepts such as social support and social constraints (Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009; Lewis, Milletich, Derlega, & Padilla, 2014a, 2014b), emotion regulation (Aldao & Nolen-Hoeksema, 2010; Pe et al., 2013), emotional experience (Gruber, Eidelman, Johnson, Smith, & Harvey, 2011), relationship satisfaction (Lewis, Milletich, Derlega, & Padilla, 2014a), life satisfaction (Sütterlin, Paap, Babic, Kübler, & Vögele, 2012) attachment (Garrison, Kahn, Miller, & Sauer, 2014), adverse life events (Boyes, Hasking, & Martin, 2015) and bereavement (Boelen, van den Bout, & van den Hout, 2003; Michael & Snyder, 2005; Morina, 2011).

Hatzenbuehler, Nolen-Hoeksema, and Dovidio (2009) examined the relationships among rumination, social support, suppression, and stigma-related stress. The participants of the study were 50 adults (29 females and 21 males) from African-American and LGB (Lesbian, Gay, and Bisexual) communities with a mean age of 21.14 (SD = 3.10). Results of the study showed there were no group differences between African-American participants and LGB participants in terms of stigma-related stress, rumination and suppression. Moreover, rumination and suppression were positively correlated with stigma-related stress and psychological stress for both of the groups (Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009).
Similarly, Aldao and Nolen-Hoeksema (2010) explored the relationships among rumination, emotion regulation strategies, depression, anxiety and eating disorders with a sample of 252 college students. Of the participants 55.6% were females and the mean age was 18.44 (SD = .66). Results of the study revealed that reflection and brooding were positively correlated to each other, and they were both positively associated with suppression, depression, anxiety and eating disorders. Moreover brooding was negatively associated with reappraisal, but there were no significant relationships between reflection and reappraisal (Aldao & Nolen-Hoeksema, 2010).

In their study, Gruber, Eidelman, Johnson, Smith, and Harvey (2011) examined the rumination and its relationships with positive and negative emotion with a group of individuals with bipolar disorder (n = 39) and healthy control group (n = 34). Results showed that individuals with bipolar disorder reported higher levels of rumination about their positive and negative emotions. Moreover, higher levels of rumination was associated with higher levels of depression, but was not associated with level of mania (Gruber, Eidelman, Johnson, Smith, & Harvey, 2011).

Relatedly, Genet and Siemer (2012) searched for the mediator role of rumination on the relationship between positive and negative mood and the effects of daily life events. Participants of the study were 157 college students (98 females and 56 males) with a mean age of 19. Results presented that rumination was a significant mediator on the relationship between negative mood and unpleasant daily life events. That is, for the individuals with higher use of rumination, higher levels of unpleasant events were leading to higher levels of negative mood (Genet & Siemer, 2012).

Sütlérin, Paap, Babic, Kübler, and Vögele (2012) investigated the nature of the relationships among rumination, depression, age, and life satisfaction. Sample of their study consisted of 299 individuals (118 females) and the mean age of the participants was 41.90 (SD = 18.57) with a range of 15 to 87. Results of the study revealed significant age differences in both brooding and reflection, that oldest age group had the lowest scores for both of the subscales. Moreover,
Brooding was positively associated with depression but this relationship was not dependent on sex and age. On the other hand, the significant association between reflection and depression was dependent on sex and age. And finally, reflection was not correlated with life satisfaction, but there was a negative significant relationship between brooding and life satisfaction (Sütterlin, Paap, Babic, Kübler, & Vögele, 2012).

Continuing with positive and negative affect, Pe et al. (2013) investigated the relationships among rumination, emotion regulation and depression with 95 undergraduate students (59 females and 36 males) and the mean age was 19.06 (SD = 1.28). Results showed that rumination was positively associated with negative affect, reappraisal and emotion regulation total score, but was negatively associated with positive affect. Furthermore, there were no significant relationships between rumination and depression, contrary to the study hypothesis. That is, participants with high ruminative responses were also the ones who reported less positive emotion and more negative emotion, more reappraisal and emotion regulation (Pe et al., 2013).

In their study, Garrison, Kahn, Miller, and Sauer (2014) searched for the mediator role of rumination and emotional avoidance in the relationship between attachment and emotional disclosure. Participants of the study were 116 undergraduate students (73 females and 43 males) and the mean age was 19.60 (SD = 3.40). Results showed that rumination was positively correlated with emotional intensity, emotional disclosure, and emotional avoidance. Also, brooding subscale was positively correlated with emotional intensity, emotional avoidance, rumination (i.e., total score of response styles scale), attachment anxiety, and suppression while it was negatively correlated with disclosure tendency. Moreover, mediation analysis showed that expressive suppression was a mediator in the relationship between attachment avoidance and disclosure tendencies. That is, individuals with higher scores of attachment avoidance were using more suppression strategy and showing less disclosure. However, brooding was not a significant mediator in the relationship between attachment anxiety and disclosure. The authors specified this two-mediator model to be at an interpersonal level and added emotional intensity to the model in order to test the within-person level. When the emotional intensity was added, both emotional intensity and rumination were significant.
mediators, showing that individuals with higher levels of attachment avoidance were showing more emotional avoidance which results in less emotional disclosure. Moreover, individuals with higher levels of attachment anxiety were showing more ruminative responses which result in higher levels of emotional disclosure (Garrison, Kahn, Miller, & Sauer, 2014).

In a study exploring the mediator role of rumination (specifically brooding subscale), Lewis, Milletich, Derlega, and Padilla (2014a) measured the psychological aggression, level of social constraints, relationship satisfaction and internalized homophobia of 220 lesbian women. The mean age of the participants was 54 ($SD = 11.2$), ranging from 22 to 88. Results revealed positive significant correlations between rumination and internalized homophobia, constraints from friends, constraints from family, physical aggression. Also, there was a negative significant relationship between rumination and relationship satisfaction. Moreover, results of the path analysis showed that (a) there was a positive significant relationship between internalized homophobia and social constraints from friends, (b) both internalized homophobia and social constraints from friends predicted rumination positively, (c) rumination predicted relationship satisfaction negatively, but psychological aggression positively, (d) relationship satisfaction predicted psychological aggression negatively, (e) rumination was a significant mediator in the relationships between internalized homophobia and psychological aggression, and social constraints from friends and psychological aggression, and finally (f) relationship satisfaction was a significant mediator in the relationship between rumination and psychological aggression (Lewis, Milletich, Derlega, & Padilla, 2014a).

Lewis, Milletich, Derlega, and Padilla (2014b) conducted another study to investigate the relationships among proximal minority stressors (i.e., internalized homophobia, stigma consciousness, concealment, and social constraints), rumination and psychological distress. Participants of the study were 220 lesbian women with a mean age of 54 ($SD = 11.3$). Results of the path analysis indicated that (a) stigma consciousness was positively correlated with both social constraints from family and social constraints from friends, (b) concealment was
positively correlated with both social constraints from family and social constraints from friends, (c) both social constraints from family and social constraints from friends were positively associated with rumination, and (d) rumination was positively correlated with psychological distress. That is, individuals who are stigmatized perceive more constraints from their friends and family, and ruminate more, that leads to more psychological distress (Lewis, Milletich, Derlega, & Padilla, 2014b).

More recently, Boyes, Hasking, and Martin (2015) explored the relationships among adverse life experiences, psychological distress, emotion regulation and rumination. Participants of the study were 2637 adolescents (1793 females and 844 males) and the mean age was 13.93 (SD = 0.99). Results of the study showed that rumination was positively associated with adverse life experiences, psychological distress, and suppression. That is, adolescents who ruminate more reported higher levels of distress and suppression and more experiences of adverse life events. Moreover, the authors tested the mediator role of reappraisal, suppression and rumination on the relationship between adverse life experiences and psychological distress. Results of the multiple mediation analysis showed that all three variables (i.e., reappraisal, suppression and rumination) were significant mediators. Results suggested that adolescents who reported higher number of adverse life events suppressed their emotions and ruminated more, but reappraised the situation less, and finally experienced more distress (Boyes, Hasking, & Martin, 2015).

Continuing with the studies exploring the relations between rumination and stressful life events, some researchers specifically focused on bereavement. Michael and Snyder (2005) searched for the relationships among hope, well-being, self-esteem, posttraumatic growth, meaning-making (i.e., sense making and benefit finding), and rumination with a sample of 158 bereaved college students. Of the participants, 109 were females and 49 were males, and the mean age was 19.19 (SD = 2.28). Mean time after the loss was 38.56 months (SD = 32.41). The stress level at the time of death of the participants was also measured on a 7-point scale and the mean of the stress level was 6.36 (SD = .69). Results showed that regardless of the time after the loss, making sense of the loss was negatively associated with rumination. But the
relation was stronger during the first year, indicating that when individuals who experienced the loss of a loved one in a year were able to make sense of the loss, they were ruminating less. Benefit finding was found to be negatively associated with rumination in first year of the loss but the association was positive after the first year. Moreover, posttraumatic growth and rumination was positively correlated after the first year of the loss. Furthermore, regression analysis results showed that benefit finding was an important factor in well-being within the first year after the loss, which showed negative correlations with depression and anxiety scores. However, sense making was not a significant predictor of well-being. On the other hand, benefit finding was positively associated with depression after the first year of the loss. And contrary to the first year after the loss, sense making was related to better well-being after the first year. When the ruminative responses of the participants were considered, it was found that rumination had a destructive relation on well-being as it was positively associated with depression, anxiety and negative affect but was negatively associated with positive affect and hope (Michael & Snyder, 2005).

In order to understand emotional problems following bereavement, Boelen, van den Bout, and van den Hout (2003) conducted a study with individuals who lost a first-degree relative. Negative meanings of grief reactions, avoidant behaviors, avoidant cognitions (i.e., rumination, suppression and distraction), and traumatic grief and depression symptoms of the participants were measured. Sample of the study consisted of 234 bereaved adults (190 females and 44 males) with a mean age of 38.45 (SD = 10.91). Mean time after the loss was 29.34 months (SD = 42.27). Results of the study declared that rumination was significantly associated with negative meaning of grief, traumatic grief and depression, in all positive ways. Behavioral and other cognitive avoidant strategies (i.e., thought suppression and distraction) were also positively associated with grief and depression related variables. Moreover, according to the results of hierarchical regression analysis, negative interpretations of grief, rumination and behavioral avoidant strategies explained 37% of the variables in traumatic grief. And finally, negative interpretations of grief and rumination explained 34% of the variables in depression (Boelen, van den Bout, & van den Hout, 2003).
Later on, Stroebe, Boelen, van den Hout, Stroebe, Salemink, van den Bout (2007) argued the coping role of rumination in the adjustment process to bereavement. Contrary to the early considerations of rumination in grief, authors suggested that rumination frequently have a coping role and be an avoidant process, leading to maladaptive adjustment to grief. Loss of a loved one may be too painful for the bereaved individuals, and in order not to face and cope with the pain, they may use ruminative strategies. Also Stroebe et al. (2007) suggested that rumination is a normal and functional response during the first weeks or months of loss since it leads to distraction.

To test their hypothesis, van der Houwen, Stroebe, Schut, Stroebe, and van den Bout (2010) conducted a study searched for the mediating role of rumination, negative grief interpretations, and grief avoidance on the relationships among risk factors (i.e., personality, social support, gender, attachment avoidance, and expectedness of death) and grief, depression, loneliness, and positive mood. Participants of the study were 195 adults (180 females and 15 males) with a mean age of 41.5 (SD = 10.96). Mean time after the loss was 0.91 years (SD = 0.73). Results indicated that rumination was a significant mediator on the relationships between; (a) gender, attachment avoidance, neuroticism, social support and expectedness of death and grief, (b) attachment avoidance, neuroticism, social support and expectedness of death and depression, (c) attachment anxiety, attachment avoidance, and kinship to the deceased and emotional loneliness, and (d) gender, attachment avoidance, neuroticism, and social support and positive mood. That is, rumination was an important mediator for impact of the risk factors on the prediction of grief, depression and positive mood. Also, it was found that individuals with lower levels of social support ruminated more, and thus leading them to show higher levels of grief and depression but lower positive mood (van der Houwen, Stroebe, Schut, Stroebe, & van den Bout, 2010).

In another research investigating the relations among rumination, avoidance, depression, posttraumatic stress and prolonged grief, Morina (2011) studied with 100 widowed survivors of Kosovo war. Results of the study revealed that rumination and avoidance were significant predictors of prolonged grief, depression and posttraumatic stress. That is, ruminative and
Avoidant responses of bereaved individuals are significant indicators of grief, depression and posttraumatic stress processes (Morina, 2011).

More recently, Delespaux and Zech (2015) examined the relationship between rumination and cognitive functioning among bereaved partners. Participants of the study were 61 bereaved individuals (41 females and 20 males). Results showed that rumination was positively correlated with grief reactions. Also, bereaved individuals with higher rumination levels showed lower cognitive functioning (i.e., ability to suppress grief related words) than the bereaved individuals with lower levels of rumination (Delespaux & Zech, 2015).

2.3 Social Constraints

Social support is a well-known resource for human functioning, however it is also known that negative aspects of social relations may have excessive adverse effects on functioning than the benefits of positive social relations (Schuster, Kessler, & Aseltine, 1990). Depending on this finding, Lepore (1992) examined the impacts of social support and social conflict on distress. Participants of the study were 228 college students (122 females and 106 males) with a mean age of 20 (SD = 2.32). Social support and social conflict from friends and roommates were measured. Results of the study showed significant relationship between conflict and distress, regardless of the resource of conflict. Also, support was negatively associated with distress, especially when it was coming from friends. Moreover, women reported higher social support from friends and roommates, and lower conflict with roommates than men. Results of the study supported the early findings of Schuster, Kessler, and Aseltine (1990) emphasizing the importance of conflict as well as the support.

Later on, Lepore (2001) discussed the influences of social environment (i.e., social support and social constraints) on the psychological distress of individuals with traumatic life events. After years of study with cancer patients and survivors and bereaved individuals, the author suggested that supportive social network provides a beneficial atmosphere to share the emotions in a way that patients feel loved, understood, cared and find ways to cope with their
trauma, maintain well-being and accept their situation. However, when the patients are in a non-supportive social network, sharing of the emotions are not accepted thus they have increased levels of stress and try to suppress their thoughts which often results in intrusive thoughts and feelings. Not being able to talk about the trauma may result in a new trauma (Lepore, 2001).

Lepore, Silver, Wortman, and Wayment (1996) defined three situations in which individuals may feel socially constrained. One social constraint is the lack of empathic, supportive individuals in the social network. Secondly, when social network suggests inappropriate things to do, it is also perceived as a social constraint. Finally, when the social network feels to be effected from the disclosures of the bereaved/ trauma victim, they may be unavailable. Regardless of the way they occur, social constraints causes the trauma victims or bereaved individuals feel unsupported, misjudged, isolated, and stigmatized by their social network when they need the encouragement to disclose their feelings and thoughts about their traumatic experiences (Lepore, 2003). Social constraints on disclosing the emotions might be stressful and cause an increase in the arousal level of the individual (Lepore, Silver, Wortman, & Wayment, 1996).

Social constraints and social support are two related topics and are both associated with several other concepts, and commonly studied among trauma victim groups and bereaved individuals. The relationships between social constraints and social support (Lepore & Ituarte, 1999; Schmidt, 2002), stress (Lepore, Ragan, & Jones, 2000; Lewis, Derlega, Clarke, & Kuang, 2006; Schnur, Valdimarsdottir, Montgomery, Nevid, & Bovbjerg, 2004; Ullrich, Lutgendorf, & Stapleton, 2002), quality of life (Eton, Lepore, & Helgeson, 2001), intrusive thoughts (Braitman et al., 2008; Lewis, Derlega, Clarke, & Kuang, 2006), mood and emotional experience (Lepore & Ituarte, 1999; Lewis, Derlega, Clarke, & Kuang, 2006; Schmidt, 2002), depression (Braitman et al., 2008; Ullrich, Lutgendorf, & Stapleton, 2002), optimism (Lepore & Ituarte, 1999), relationship quality (Eton, Lepore, & Helgeson, 2005) and bereavement (Bonanno & Kaltman, 2001; Lane & Hobfoll, 1992; Lepore, Silver, Wortman, & Wayment, 1996; Pennebaker & Harber, 1993) are explored in several studies.
Lepore and Ituarte (1999) investigated the relationship between optimism, emotional experience, social support and social constraints among cancer patients. Participants of the study were 97 women with cancer and the mean age was 54, ranging from 25 to 81. Measurements were done before the surgical operations (Time 1) and 8 months after the first interview (Time 2). Results indicated that (a) optimism was positively associated with positive affect and was negatively associated with negative affect at both of the measurements (i.e., T1 and T2), (b) optimism was negatively correlated with constraints from spouse and constraints from family/friends at T1 and T2, (c) social constraints from spouse and family/friends were positively associated with negative affect at T1 and T2, but were not associated with positive affect, and (d) social constraints from spouse was positively associated with negative affect, and was negatively associated with positive affect at T2. Moreover, for the married participants (n = 75), T1 optimism was negatively associated with negative affect at T1, and social constraints from spouse and family/friends at T2, and was not associated with social support from spouse and family/friends at T2. Thus, it was concluded that social constraints had a mediating role on the relationship between optimism and negative affect for the married individuals. Depending on the results, Lepore and Ituarte (1999) concluded that social support was not a predictor of optimism among cancer patients, but social constraints was.

In another study, Lepore, Ragan, and Jones (2000) explored the impact of social context on cognitive and emotional processes during an experience of acute stressor. The participants of the study were 256 college students (50% females) and the mean age was 19.41 (SD = 1.42). Participants were assigned to no-talk, talk alone, validation or invalidation conditions which they watched a war video first and then depending on their conditions, they disclosed their feelings alone, did not disclose, or interviewed about their feelings. In the interview conditions, participants were also in two different group, validation and invalidation, that their feelings and thoughts about the video was validated or not. In the second session, manipulation checks (i.e., friendliness, empathy, appealing, and knowledge of the interviewee in the first session), stress responses, perceived stress and arousal, and cognitive processing of the participants were measured. In the first step of the analysis, manipulation checks were controlled and results indicated that validation group perceived the interviewee as more
friendly, empathic, appealing and knowledgeable, thus the manipulation was considered as successful. Results showed that (a) participants in no-talk group had significantly more intrusive thoughts than the ones in talk alone and validate groups, (b) participants in no-talk group had significantly more avoidant cognitions than the ones in talk alone group, (c) the condition of the participants had a significant positive effect on perceived stress that participants in no-talk condition had higher levels of stress than talk alone and validate groups, (d) talk-alone and validate groups were negatively associated with perceived stress and intrusive thoughts, and (e) intrusive thoughts was positively associated with perceived stress (Lepore, Ragan, & Jones, 2000).

Continuing on the studies with cancer patients, Eton, Lepore, and Helgeson (2001) explored the relationships among health related quality of life (i.e., measured by “physical limitations in performing daily activities, role limitations due to physical health, general health perceptions, bodily pain, vitality and/or energy level, role limitations due to emotional health, problems in social functioning, and mental health” pp. 1453), self-esteem, self-efficacy, social support and social constraints. Participants of the study were 256 men with prostate cancer who had their primary treatment within the three months of the interviews and the mean age was 65 (SD = 0.5). Results revealed that prostate related health (i.e., better sexual functions, urinary functions and bowel functions) were positively associated with general functioning and mental functioning. Moreover, social support from the spouse was positively associated with general mental functioning while social support from friends and family was positively associated with general physical health and mental functioning. Furthermore, social constraints from the spouse had a negative correlation with general mental functioning while social constraints from family and friends had negative correlations with mental and physical functioning. Finally, self-efficacy was positively associated with mental functioning and self-esteem was positively correlated with physical and mental functioning (Eton, Lepore, & Helgeson, 2001).

In their study, Ullrich, Lutgendorf, and Stapleton (2002) examined the relations among social constraints, sexual orientation, depression, area of residence, stress, neuroticism and HIV-
related factors. Participants of the study were 121 HIV-infected individuals (25% females and 75% males) with a mean age of 36.4 ($SD = 8.4$) and the average of years with HIV was 5.56 ($SD = 4.35$). Results revealed that (a) level of social constraints was positively associated with HIV-related stress and depression, and also had a moderating effect on the relationship between HIV-related stress and depression, (b) HIV-related stress was positively associated with depression, and finally (c) gay and bisexual men who live in a non-metropolitan area perceive higher levels of social constraints and thus are more depressed (Ullrich, Lutgendorf, & Stapleton, 2002).

Schmidt (2002) examined the effects of social factors (i.e., social support and social constraints), emotional intelligence factors (i.e., meta-mood, emotional disclosure, and emotional expression), along with the disease related variables (i.e., time since the diagnosis, type of surgery, type of treatment, and stage of the disease) on adjustment among breast cancer patients. A total of 190 women from different stages of breast cancer with a mean age of 48.3 ($SD = 8.9$) was the sample of the study. The mean of the time since the diagnosis was 30.5 months ($SD = 23.4$). The results showed that participants who were in a more severe stage of the disease, had their diagnosis more recently, experienced more constraints and less support from their social environment, and had lower scores of emotional intelligence, were found to report more depressive symptoms. The results also showed that having the diagnosis more recently, perceiving more constraints, and attending to their emotions more but repairing their mood less, resulted in experiencing more intrusive and avoidant cognitions because of the traumatic event they experienced (i.e., cancer). Another finding showed that when the participants experienced more social constraints and had less meta-mood experiences, they had higher levels of anxiety. Furthermore, higher levels of social constraints and lower levels of meta-mood was associated with more avoidant cognitions (Schmidt, 2002).

Moreover, Schnur, Valdimarsdottir, Montgomery, Nevid, and Bovbjerg (2004) explored the mediating role of familial risk for breast cancer on the relationship between social constraints and distress besides the avoidance-intrusion characteristics and mood states of the participants. The study had 60 women participants with familial risk of breast cancer and the
mean age was 39.2 (SD = 9.4). Results illustrated that social constraints were positively associated with cancer-specific distress, general distress and avoidance. Moreover, avoidance was a mediator on the relationship between social constraints and general distress, and on the relationship between social constraints and cancer-related distress.

Looking from the opposite view, Eton, Lepore, and Helgeson (2005) investigated the impacts of social constraints among the spouses of cancer patients. Participants of the study were 165 prostate cancer patients and their female spouses. General and cancer-specific distress level of the patients and their spouses were measured. Moreover, perceived social support from the patient, perceived social constraints from the patient, perception of marital quality, self-esteem level, spousal uncertainty about illness, and positive reappraisal and acceptance coping strategies of the spouses were measured. And patients’ cancer related health quality and general health quality levels were also measured. Results revealed that there was no significant difference in terms of general distress between patients and spouses while spouses reported higher levels of cancer-related distress. Moreover, general distress of the spouses was positively associated with social constraints from patient, illness uncertainty, and searching for meaning while it was negatively associated with marital quality, social support from patient, self-esteem, acceptance, positive reappraisal and finding meaning. And finally, cancer-related distress of the spouses was positively associated with social constraints from patient, illness uncertainty, and searching for meaning while it was negatively associated with self-esteem, acceptance, and finding meaning (Eton, Lepore, & Helgeson, 2005).

Similarly Herzer, Zakowski, Flanigan, and Johnson (2006) examined the relationship between perceived risk (i.e., appraisal of cancer) and social constraints among 75 cancer patients (28 females and 47 males) and their spouses. Mean age of the patients was 61 (SD = 9.3) and mean age of the spouses was 59 (SD = 15) and the measurements were taken at two different times in a three-month period. Results of the study illustrated that patient appraisal at Time 1 was significantly correlated with social constraints. That is, patients who interpret their illness as a threatening event, also reported higher levels of constraints.
In their study, Lewis, Derlega, Clarke, and Kuang (2006) searched for the impacts of social constraints and stigma consciousness on negative mood states, lesbian-related stress, physical symptoms, intrusive thoughts and internalized homophobia among 105 self-identified lesbians. Mean age of the participants was 35.90 (SD = 12.15). Results showed that social constraints and stigma consciousness were both positively associated with negative mood, lesbian-related stress, internalized homophobia, physical symptoms, and intrusive thoughts. Also, social constraints and stigma consciousness had significant interaction effects on physical symptoms, internalized homophobia, and intrusive thoughts.

Braitman et al. (2008) examined the relationships among social constraints, self-efficacy, anxiety, depression, self-care (including diet, exercise, foot care, blood sugar testing and smoking), and intrusive thoughts. Participants of the study were 82 adults (70% females) with diabetes with a mean age of 50.28 (SD = 12.06). Results indicated that (a) social constraints were negatively correlated with general diet and exercise, but were not significantly correlated with specific diet, (b) social constraints were positively associated with anxiety and depression while they were negatively associated with self-efficacy, (c) the relationship between social constraints and general diet was mediated by self-efficacy and anxiety, (d) the relationship between social constraints and exercise was mediated by self-efficacy and depression, and (e) social constraints had a positive relationship with intrusive thoughts while the relationship between social constraints and intrusive thoughts was mediated by anxiety (Braitman et al., 2008).

Similarly, Agustsdottir et al. (2010) searched for the relations among social constraints, depression, anxiety, distress, and emotional expressivity in a group of prostate cancer patients. Participants of the study were 184 males and the average time since the diagnosis was 4 years with a range of 16 to 85 months. Results illustrated that social constraints were positively associated with avoidance, intrusive thoughts, anxiety and depression but were not significantly associated with emotional expressivity. Moreover, results of the hierarchical regression models showed significant main effect of social constraints on depression, anxiety, intrusive thoughts and avoidance while social constraints and emotional expressivity had
significant interaction effects on depression, anxiety, and intrusive thoughts (Agustsdottir et al., 2010).

Social constraints and social support are frequently studied together. However, in the bereavement specific studies, these concepts are studied separately and social support is a more commonly studied topic for decades than social constraints. Several studies (Francis, Kypriotakis, O'Toole, Bowman, & Rose, 2015; Moskowitz, Folkman, & Acree, 2003; Stelle & Uchida, 2004; Vachon & Stylianos, 1988) focused on the grief adjustment process and the impact of social support during this process. And some other studies (Bonanno & Kaltman, 2001; Lane & Hobfoll, 1992; Lepore, Silver, Wortman, & Wayment, 1996; Pennebaker & Harber, 1993) focused on the social constraint dimension of the bereavement research.

For instance, in their study examining the role of social support in bereavement, Vachon and Stylianos (1988) proposed a model and concluded that personality factors and the preexisting social network of the bereaved individuals influence the response to the bereavement. According to the authors, social support has four main parts; emotional, appraisal, informational, and instrumental support. Emotional support includes all actions that augment emotional state and self-esteem of the bereaved. Appraisal support is defined as the mechanism that provides positive feedbacks about the thoughts and behaviors of the bereaved. Informational support comprises of advises and information given to solve the problems that bereaved individuals have. And finally, instrumental support is delivering any kind of physical support. Moreover, timing, source, structure, amount and function of social support are important facets that need to be in balance. Needs and expectations of bereaved individuals and the social network’s response to these needs define the evaluation of the network as helpful or unhelpful. Bereaved individuals that evaluate their social network as unsupportive experience higher levels of distress. This evaluation also shows that personality variables of the bereaved individuals (such as self-esteem, emotional stability, and coping mechanisms) impacts the perception of social support. Thus, the authors suggest a model of bereavement and social support that is influenced by personality factors and influences distress level of the bereaved individuals (Vachon & Stylianos, 1988).
Moskowitz, Folkman, and Acree (2003) explored the relationships among social support, coping, depressive mood, positive states of mind, education, optimism, religiosity, positive and negative life events, positive aspects of caregiving, pre-study losses, hassles, and physical health. Participants of the study were 68 gay or bisexual men who were bereaved long-term partners and caregivers of deceased men with AIDS, and the mean age was 38.9 (SD = 6.7). Interviews were first conducted 2-4 weeks after the death of the partner and then conducted every 2 months during the first 2 years of the study, then every 6 months during the following 3 years. Results of the study showed that (a) social support was positively associated with positive life events while it was negatively associated with physical symptoms and hassles, (b) social support seek was positively correlated with confrontive coping, behavioral escape/avoidant coping, planning as a problem solving mechanism, and positive reappraisal, (c) depression was positively associated with physical symptoms, hassles, and cognitive escape/avoidant coping while it was negatively associated with optimism and social support, and (d) positive states of mind was positively related to optimism, social support, and positive life events, while it was negatively related to physical symptoms, hassles, and negative life events. Moreover, optimism, social support and positive states of mind predicted the decrease in depression, and optimism, social support, distancing as coping predicted the increase in positive states of mind while depression predicted the decrease increase in positive states of mind (Moskowitz, Folkman, & Acree, 2003).

Similarly, Stelle and Uchida (2004) studied the social support after partner loss with a sample of 170 widows and 25 widowers. Mean age of the widows was 69.3 (SD = 6.89) and mean age of the widowers was 73.8 (SD = 5.65). Formal and informal social integration, relationship with children, relationship with friends and relatives, and positive support from all sources were measured before the loss (B), six months after the loss (W1), and 12 months after the loss (W2). Results illustrated that (a) level of social support regardless of its source, increased from B to W1 but decreased from W1 to W2 for both widows and widowers, (b) a significant increase in informal social integration was found for older participants from B to W1, (c) widowers reported negative perceptions of social support (i.e., similar to social constraints) from their children at times B and W2, (d) compared to widows, older widowers were less dependent on
their children at times W1 and W2, (e) widowers reported significantly lower levels of social support than widows at times B and W2, and (f) older widowers reported lower levels of social support (Stelle & Uchida, 2004).

Recently, Francis, Kypriotakis, O’Toole, Bowman, and Rose (2015) investigated the impacts of social support, burden, functional difficulties, spirituality, problematic patient behaviors, emotional and physical well-being on mood states and bereavement (i.e., measured by existential loss/ emotional needs, guilt/ blame/ anger, and preoccupation with thoughts of deceased variables). The participants of the study were 199 caregivers (162 females and 37 males) of cancer patients with a mean age of 54.8, ranging from 23 to 86. Of the participants 82 (41.2%) were living with the patient. Results revealed that (a) caregivers that have disability, that are employed and live with patients reported higher levels of grief and patients’ problematic behaviors, physical well-being and spiritual well-being had positive associations with grief level while patients’ emotional well-being had a negative association, (b) caregivers that have disability, live with patients and perceive health burdens reported higher levels of depressed mood and patients’ physical well-being also predicted depressed mood positively, (c) existential loss/ emotional needs was positively associated with caregivers’ employment, living with patient, having health burdens, and patients’ problematic behaviors, physical and spiritual well-being while it was negatively associated with patients’ emotional well-being, (d) guilt/ blame/ anger variable was positively correlated with caregivers’ being female, disability and family abandonment, and patients’ problematic behaviors and physical well-being, and finally (e) preoccupation with thoughts of deceased was positively associated with caregivers’ employment, living with patient, and having social support, and patients’ problematic behaviors and spiritual well-being. Depending on the results, it can be concluded that social constraints (i.e., familial abandonment in the current study) has a more significant role in grief process than social support (Francis, Kypriotakis, O’Toole, Bowman, & Rose, 2015).

Lane and Hobfoll (1992) examined the relationship between social constraints and loss of resources (i.e., physical losses, loss of optimism, loss of employment, loss of friends, etc.) with
a sample of patients with chronic breathing disorder. Participants of the study were 78 patients (21 females and 57 males) with a mean age of 61.1 ($SD = 8.8$) and 78 supporters (67 females and 11 males) with a mean age of 52.3 ($SD = 14.5$). Of the supporters, 68% were spouses of patients and 15% were parents, 6% were siblings and the remaining 11% had other kinds of relationships with patients. Measurements of symptoms, losses, anger, anger expression, and obstreperousness of patients, and anger of supporters were done twice in a 12-week period. Results of the study indicated that patients’ loss was positively associated with patients’ anger at both Time 1 and Time 2, and patients’ anger expressions at Time 2. Supporter anger at Time 1 was positively associated with patients’ symptoms, patients’ anger expressions and patients’ obstreperousness, while supporter anger at Time 2 was positively associated with symptoms, anger, anger expression, and obstreperousness of patients at Time 1 and Time 2 and supporter anger at Time 1. Depending on the results, Lane and Hobfoll (1992) concluded that social support from the caregivers of chronic patients is closely related to the patients’ attitudes. When the caregivers feel that their needs are not satisfied, they feel burdened thus leading to social constraints. However, when the caregivers are also attended, they feel less burden and invest their time and energy to the patient. Therefore, it is important to address social constraints as well as social support (Lane & Hobfoll, 1992).

Pennebaker and Harber (1993) addressed impacts of social context on disclosure after collective traumas (i.e., earthquake and war). With three different studies, they explored the sharing of thoughts and feelings and the change in these disclosures over time within a college and two community samples. First sample consisted of 361 adults (52% females) with a mean age of 39.1 which were reached by telephone interviews, second sample consisted of 1710 adults (56.1% males) with a mean age of 44.1 which were reached by newspaper surveys, and the final sample consisted of 117 college students (63% females) with a mean age of 20.4 which also participated in the follow-up session. Results showed that college students thought and talked about the traumatic event less than the telephone and newspaper group, who were older than college student sample. In all three groups, the level of thinking and talking about the event was higher at the early times of the event, and significant decline was found during time. It was also found that when the individuals think and talk about the events, they
reported better physical and psychological states. However, when individuals could not find enthusiastic listeners, they were unable to talk about the events which led them to ruminate. One of the important findings of the study was that participants reported willingness to talk about the traumatic events, but they were not willing to listen to others. They explained this mechanism in a way that hearing more about the upsetting event gives them psychological burden that they do not know how to deal with. Thus, not listening another person talking about the traumatic event, which can be named as social constraints, was a coping mechanism (Pennebaker & Harber, 1993).

Similarly, Bonanno and Kaltman (2001) argued the impacts of social interactions that bereaved individuals experience. Developing the suggestions of Pennebaker and Harber (1993) they named three main issues about social interactions that may lead to social withdrawal and isolation. Firstly, they discussed the impact of bereaved individuals’ thoughts about their impression on others. Most bereaved individuals report having negative impact on others when they disclose their feelings and thoughts about the loss they experience, thus leading them to loss of the support of the listeners. Secondly, bereaved individuals experience difficulties in their social and work roles. Bereaved individuals experience difficulties in time management, maintaining social relationships, roles and responsibilities in the family, which finally results in withdrawal from some or all of these roles. And finally, experience of loss of a loved one makes establishing new relationships difficult for the bereaved ones. Especially older widows and widowers have difficulties in starting and maintaining new intimate relationships than younger widows and widowers. Also depressive mood plays an important role on difficulties in establishing new relationships. These issues frequently occur in the first year of the bereavement, and through the end of the first year, bereaved individuals experience less social constraints (Bonanno & Kaltman, 2001).

In their study examining the relationship among social constraints, intrusive thoughts and depressive symptoms of the bereaved mothers having experienced sudden infant death syndrome (SIDS), Lepore, Silver, Wortman, and Wayment (1996) focused on death losses, specifically. The participants of the study were 98 mothers with a mean age of 23 who lost
their infant baby. Measurements of depression, intrusive thoughts, social constraints, desire of talk and amount of talking were done at three different times; T1 was 3 weeks after the death, T2 was 3 months and T3 was 18 months after. Results revealed that scores of depression, intrusive thoughts, desire of talk and amount of talking significantly declined through three measurements but social constraints remained the same. At T1, social constraints were positively associated with intrusive thoughts and depressive symptoms but was negatively associated with amount of talking. Moreover, mothers with higher levels of intrusive thoughts at T1, reported less amount of talking at T2 and higher levels of social constraints at all times. This finding was suggesting that when the mothers had more intrusive thoughts, they perceived more social constraints and had less opportunity to share their thoughts and feelings. Furthermore, the relationship between intrusive thoughts and depression was mediated by social constraints positively. That is, when mothers who were with social constraints experienced intrusive thoughts, they also reported higher levels of depression. However, when mothers were not socially constrained, intrusive thoughts were leading to lower levels of depression, displaying the importance of social constraints on depressive mood in bereavement (Lepore, Silver, Wortman, & Wayment, 1996).

2.4 Summary

As summarized above, loss of a loved one is a common experience that causes universal reactions such as sadness or anger. The similarities in grief reactions in affective, behavioral, cognitive, and physical and somatic categories are observed across generations and cultures. However, at the same time, the bereavement process is a unique experience that comprises of individual differences. Individuals from the same culture and even from the same family experience different processes of adaptation to the loss. These individual differences are mostly rooted in the emotional, cognitive, and social/relational characteristics of the bereaved individual. Most of the bereavement theories aim to understand these aspects causing the individual differences to attain universal/wide-ranging perspectives focusing on the functioning of the bereaved or the attachment and detachment processes.
According to Rubin, Malkinson, and Witztum (2012), regardless of the theoretical background, bereavement process is treated as a significant life event that causes change. The change process which simultaneously happens at personal and interpersonal levels, starts with a severe disturbance in the lifespan of the bereaved individual that stabilizes during time and finally reaches to a homeostasis. Since the change process is considered to happen at two different aspects (i.e., functioning and attachment/ detachment), the model is named Two-Track Model of Bereavement. First track focuses on the personal level that change process takes place and tries to understand the functioning of the bereaved individual in biological, psychological, and social aspects such as somatic problems, depressive mood, anxiety, self-esteem, and investments in work and social relations. And the second track focuses on the interpersonal level that change process takes place and tries to understand the relationship with the deceased (Rubin, Malkinson, & Witztum, 2012). With the aim of having standardized measurements of these changes, the Two-Track Bereavement Questionnaire was developed (Rubin et al., 2009). This questionnaire included five subscales, Track-I included biopsychosocial functioning and traumatic perceptions of the loss subscales, and Track-II included relational active grieving, positive and close relationships with the deceased, and conflictual relationships with the deceased subscales. These tracks were developed to present a deeper perspective of bereavement process covering both personal and interpersonal changes. Although the model and the questionnaire mainly aimed to assess the grief process in both dimensions, they also provide opportunity to focus on one of the dimensions (Rubin, 1999a; Rubin, Malkinson, & Witztum, 2012). Eventually, Two-Track Model of Bereavement provides a comprehensive perspective of grief experience including emotional, cognitive, psychological and social aspects (Rubin, Malkinson, & Witztum, 2003). Since the present study aimed to explore the relationships of these aspects in grief experience, Two-Track Model of Bereavement was used as the background theory.

As seen from the related literature, the functionality and relational characteristics of the individuals are also influenced by personal traits such as emotion regulation, meta-mood, and rumination, and also interpersonal context such as social constraints. However, Two-Track Model of Bereavement does not cover these aspects and lacks to present a deeper
understanding of the individual experiences in the bereavement process. Thus, the current study combined social, cognitive and emotional aspects of individual experiences with the grief process, and aimed to exhibit a broader picture of the bereavement. In the light of the previous study findings, meta-mood, emotion regulation, rumination, and social constraints were hypothesized to have influences on the personal and interpersonal tracks of the grief process. As summarized in the previous sections, studies show that meta-mood and emotion regulation are adaptive coping mechanisms in stressful situations that have both negative associations with distress, depression and anxiety. On the other hand, ruminative responses and perceptions of social constraints are found to be positively associated with distress and depression, showing that these variables are risk factors in stressful events. Moreover, the relationships of bereavement and emotion regulation, rumination and social constraints were tested separately, and showed parallel findings with stress and depression studies.

To be more specific, it is known that the experience of grief is shaped and finds meaning in a social context that the bereaving individual lives in. The support and sharing of the social context may facilitate or hinder the grief process. When the social environment is accepting and supporting the bereaved individual to experience and disclose his/her emotions, the coping process is found to be fastened (Pennebaker, Zech, & Rimé, 2001). Therefore, it is important to investigate the social support and social sharing mechanisms of the bereaved individuals. Also, according to Lepore and Ituarte (1999) social constraints are more effective on the experience of positive and negative emotions than social support. Since the loss of a loved one reveals emotions, and the related literature agrees on the impact of social support, it is important to understand the influence of social constraints as well.

In terms of other study variables, literature provides studies that show the relationships among emotion regulation, rumination and meta-mood. Also, empirical studies show the associations of these variables with social support. According to van der Houwen, Stroebe, Schut, Stroebe, and van den Bout (2010), lower levels of social support predicts higher levels of rumination, and that results in higher levels of grief and depression scores and lower levels of positive mode. Moreover, in another study, higher levels of social support was found to be
associated with lower scores of suppression (Witlink et al., 2011). Continuing with emotion regulation, Gross and John (2003) suggested a positive relationship between reappraisal and mood repair, and negative relationships between suppression and all meta-mood factors (i.e., attention to feelings, clarity of feelings and mood repair). Furthermore, suppression has a positive relationship with rumination (Gross & John, 2003; Moore, Zoeliner, & Mollenholt, 2008) while both reflection and suppression were positively associated with brooding (Arditte & Joormann, 2011).

Moreover, the literature on emotion regulation and rumination provides representations of these emotional strategies in bereavement process, but research on meta-mood or emotional intelligence lacks the relationships with bereavement process and adaptation to loss. It is known that attention to feelings have a positive association with death anxiety (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2013; Espinoza V. & Sanhueza A., 2012), and distress (Fernandez-Berrocal & Extremera, 2008) but the relationships between the meta-mood variables and adjustment to loss process needs further considerations. Thus, depending on previous studies showing that meta-mood processes are closely related to rumination, social constraints, emotion regulation and death attitudes, it was hypothesized that there will be relationships between meta-mood and bereavement experiences.

Consequently, this study aimed to improve the two-track perspective with related variables to understand the personal (i.e., cognitive and emotional) and social mechanisms that influence the interpersonal and intrapersonal aspects of grief adjustment. With this aim, Two-Track Model of Bereavement was combined with and emotion regulation, meta-mood, ruminative responses and social constraints theories to have a comprehensive perspective of the grief course in a Turkish sample.
CHAPTER 3

METHOD

The purpose of the current study was to investigate the relationships among the interpersonal and intrapersonal processes, and their impact on the grief course in a Turkish sample through expanding the displays from the Two-Track Model of Bereavement by developing a model to explore the relationships of grief adjustment processes with meta-mood, emotion regulation, rumination, and social constraints.

Since loss of a loved one and grief experiences are very common life events, most of the bereaved individuals experience similar feelings such as despair, sadness, loneliness, and anger (Stroebe, Hansson, Stroebe, & Schut, 2001). However, these similarities are not valid for every single individual that experience the loss of their loved ones, some may grieve much more and longer than others (Bonanno, et al., 2002) and some may adapt to the loss better than others. These differences may occur due to personal traits of the bereaved individuals, such as the emotion and mood regulation strategies and ruminative responses or due to the characteristics of their social network (i.e., social support or constraints). Models and theories of bereavement mostly focus on the acute reactions in emotional, cognitive and behavioral aspects. However, individuals’ backgrounds and more permanent reactions determine the acute reactions to stressful events such as loss of a loved one. Thus, in order to examine the individual differences and possible influences of personal backgrounds and characteristics of the social network, it is important to investigate the emotional, cognitive, and social aspects concurrently.

In this chapter of the current study, hypothesized model, the design of the study, the sampling procedure, the characteristics of the participants, data collection instruments and data
collection procedure, the variables and the validity and reliability of the questionnaires, the data analyses of the main study, and the limitations of the study were presented.

3.1 Overall Design of the Study

This study suggests and presents a comprehensive model of bereavement including social, cognitive and emotional aspects that influence the personal and interpersonal courses of adaptation to the loss of a loved one. The nature of the relationships among social constraints, cognitive and emotional strategies (meta-mood, emotion regulation and rumination) and bereavement were examined in a correlational study design. Since the correlational study aims to “explore the relationships between two or more variables and search for the causes and effects” (Fraenkel & Wallen, 2005, pp. 11) and the purpose of the current study was to explore the relationships among social, cognitive and emotional variables and grief process, correlational method was appropriate for the study. With this specific purpose, 708 bereaved individuals who had an experience of loss in the last five years voluntarily participated in the main study. The Two-Track Model of Bereavement Questionnaire, Social Constraints Scale, Trait Meta-Mood Scale, Ruminative Responses Scale and Emotion Regulation Questionnaire were administered in the study with a demographic form. The main analyses of the study included (a) descriptive analyses to understand the relationships among characteristics of bereaved individual and characteristics of death related variables and the study variables, (b) calculating the bivariate correlations among variables in the model, (c) testing the measurement model, and (d) testing the structural model. Figure 1 represents the hypothesized relationships among the variables.
Figure 1. Hypothesized structural model of the relationships among social, cognitive and emotional strategies in grief process.
3.2 Sampling Procedure and Participants

For the current study, two sets of data was gathered. The first data set consisted of 323 individuals (222 females and 101 males) and was used for the pilot study. The second data set consisted of 708 bereaved individuals (496 females and 212 males) and was used for the main analyses. To be more specific, first data set was used to test the validity and reliability of the questionnaires, and the second data set was collected to test the measurement and structural models. Procedure and the characteristics of the two samples are presented below.

3.2.1 Sample and Procedure for the Pilot Study

Target population of this study was Turkish adults who experienced loss of a loved one in the last 5 years. This limit was set to follow Rubin et al. (2009)'s suggestion that grieving process of the bereaved individuals change significantly after five years. The inclusion criteria were (a) being an adult, and (b) experiencing the loss of a loved one in last five years. Since the purpose was to understand the grief experiences of bereaved individuals in a Turkish sample, no other selection criteria were added. However, since the entire population of the bereaved individuals was unknown, the sample for the pilot study was recruited through non-random sampling. The students, faculty and staff members of the Middle East Technical University were asked to participate in the study and refer to the other bereaved individuals they know. After gathering the approval from Middle East Technical University Human Subjects Ethics Committee (Appendix A), the data were collected from volunteered bereaved individuals by researcher in approximately two weeks.

At the beginning of the questionnaires, the participants were asked to respond considering their recent loss. And, if they had multiple experiences of loss during the last five years, they were asked to think about the one that was the most notable.

The participants of the pilot study consisted 323 individuals (222 females and 101 males) aged between 18 and 81 \((M = 35.21, SD = 14.58)\) who experienced loss during the last five years. Of
the participants, 27 (8.4%) of them had a doctoral degree, 32 (9.9%) of them had a master's
degree, 126 (39%) of them were college graduates, 3 (0.9%) of them had an associate (two-year)
degree, 106 (33.4%) of them were high school graduates, 8 (2.5%) of them were secondary
school graduates, and 16 (5%) of them were primary school graduates. In terms of their
religious beliefs, 3 (0.9%) of the participants defined themselves as very religious, while 69
(21.4%) defined as religious, 158 (48.9%) defined as moderately religious, 48 (14.9%) defined
as not very religious, 30 (9.3%) defined as not religious at all, and 12 (3.7%) defined as other.

When asked whether the participants had a professional mental help, 297 (92%) of them
reported that they didn't have a professional help and 18 (5.6%) of them reported to have.

Furthermore, the mean age of the deceased ones' was 62.89 (SD = 21.40) with a range of 9 to
101. Of the reported losses, 154 (47.7%) of them were natural anticipated deaths, while 125
(38.7%) of them were natural sudden and 42 (13%) of them were violent. Of the deceased ones,
91 (28.2%) of them were grandparents of the participants, while 59 (18.3%) were parents, 56
(17.3%) were aunts and uncles, 37 (11.5%) were in-laws, 21 (6.5%) were other acquaintances,
20 (6.2%) were friends, 17 (5.3%) were cousins, 11 (3.4%) were siblings, 10 (3.1%) were spouses,
and 1 (0.3%) was child of the participants.

### 3.2.2 Sample and Procedure for the Main Study

Target population of this study was Turkish adults who experienced loss of a loved one in the
last 5 years. This limit was set to follow Rubin et al. (2009)'s suggestion that grieving process
of the bereaved individuals change significantly after five years. The inclusion criteria were
(a) being an adult, and (b) experiencing the loss of a loved one in last five years. Since the
purpose was to understand the grief experiences of bereaved individuals in a Turkish sample,
no other selection criteria were added. However, since the entire population of the bereaved
individuals was unknown, the sample for the main study was recruited through non-random
sampling. After gathering the approval from Middle East Technical University Human
Subjects Ethics Committee (Appendix A), the data were collected from volunteered bereaved
individuals by researcher in approximately two weeks. The data for the main study was
collected by means of two main methods. The researcher prepared both online and paper-pencil forms of the questionnaires. The students, faculty and staff members of the Middle East Technical University were asked to participate in the study and refer to the other bereaved individuals they know. To announce online survey specifically, researcher used two main ways; (a) announcement via e-mails, and (b) announcement via social media (i.e., Facebook, Twitter and Ekşiözlük).

At the beginning of the questionnaires, the participants were asked to respond considering their recent loss. And, if they had multiple experiences of loss during the last five years, they were asked to think about the one that was the most notable.

A total of 365 bereaved individuals participated in the online survey and 343 bereaved individuals were reached by paper and pencil forms. These groups were compared in terms of their scores on the dependent variables of the study (i.e., relational active grieving and biopsychosocial functioning). A one-way ANOVA was conducted to explore the mean differences, and since the homogeneity of variance assumption was violated for relational active grieving variables, alpha level was set at $\alpha = .04$. Results showed significant mean differences $F(1, 706) = 39.21, p < .002$ for relational active grieving, indicating that online group had higher scores on this variable ($M = 43.17, SS = 13.20$) then the paper & pencil group ($M = 37.33, SS = 11.52$). There were no significant differences between these two groups in terms of the age of the participant, gender of the participant, and time elapsed since death. Thus, since the purpose of the current study was to understand the grief experiences and using Internet sources or online surveys were out of the scope of the study, no further analyses were conducted and the two groups were combined together.

With this purpose, a total of 708 bereaved individuals (496 females and 212 males) with an age range of 18 to 70 ($M = 32.40, SD = 10.72$) were reached in the study. Gender, marital status, education level, employment status, and psychological help status of the participants were reported in Table 1. In terms of marital status, 274 (38.7%) participants reported to be single, 72 (10.2%) were reported to be in a relationship, 13 (1.8%) were reported to be engaged, 304
(42.9%) reported to be married, 11 (1.6%) were reported to be widowed, 25 (3.5%) were reported to be divorced, 3 (0.4%) were reported to be cohabitating, 1 (0.1%) were reported to be separated and 2 (0.3%) of the participants were reported other as their marital statuses. Considering their religious beliefs, 119 (16.8%) of the participants defined themselves as not religious at all, 129 (18.2%) defined as not very religious, 283 (40%) defined as moderately religious, 135 (19.1%) defined as religious, 6 (0.8%) defined as very religious, 12 (1.7%) defined as spiritual, 9 (1.3%) defined as atheist, and 7 (1%) defined as other. When asked whether the participants had a professional psychological help, 647 (91.4%) of them reported that they did not have a professional help and 54 (7.6%) of them reported to have.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Demographic Characteristics of the Participants of the Main Study (N = 708)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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</tr>
<tr>
<td>Female</td>
<td>496</td>
</tr>
<tr>
<td>Male</td>
<td>212</td>
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<tr>
<td>Marital Status</td>
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<tr>
<td>Single</td>
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<tr>
<td>In a relationship</td>
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<tr>
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<td>Separated</td>
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<tr>
<td>Other</td>
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<td>Employment Status</td>
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<td>Full-time employee</td>
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<td>Retired</td>
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<tr>
<td>Other</td>
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<tr>
<td>Professional psychological help</td>
<td></td>
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<tr>
<td>Yes</td>
<td>54</td>
</tr>
<tr>
<td>No</td>
<td>647</td>
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Table 1 (continued)

Demographic Characteristics of the Participants of the Main Study (N = 708)

<table>
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<tr>
<th></th>
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<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
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<tr>
<td>Primary school</td>
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<tr>
<td>Secondary school</td>
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<td>1.0</td>
</tr>
<tr>
<td>High school</td>
<td>168</td>
<td>23.7</td>
</tr>
<tr>
<td>Associate degree (two-year)</td>
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<td>1.0</td>
</tr>
<tr>
<td>College</td>
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<td>47.5</td>
</tr>
<tr>
<td>Master’s</td>
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<td>19.8</td>
</tr>
<tr>
<td>Doctorate</td>
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<td>4.9</td>
</tr>
<tr>
<td>Religious Beliefs</td>
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<td></td>
</tr>
<tr>
<td>Not religious at all</td>
<td>119</td>
<td>16.8</td>
</tr>
<tr>
<td>Not very religious</td>
<td>129</td>
<td>18.2</td>
</tr>
<tr>
<td>Moderately religious</td>
<td>283</td>
<td>40.0</td>
</tr>
<tr>
<td>Religious</td>
<td>135</td>
<td>19.1</td>
</tr>
<tr>
<td>Very religious</td>
<td>6</td>
<td>0.8</td>
</tr>
<tr>
<td>Spiritual</td>
<td>12</td>
<td>1.7</td>
</tr>
<tr>
<td>Atheist</td>
<td>9</td>
<td>1.3</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Gender, cause of death and closeness (kinship) of the deceased ones’ and time elapsed after the death were presented in Table 2. In the present study, 295 (41.7%) of the deceased ones were females and 407 (57.5%) of them were males and the mean age of the deceased ones’ was 60.89 (SD = 20.76) with a range of 2 to 101. Of the reported losses, 353 (49.9%) of them were natural anticipated deaths (i.e., cancer, old age), while 253 (35.7%) of them were natural sudden (i.e., heart attack) and 97 (13.7%) of them were violent (i.e., suicide). Of the deceased ones, 204 (28.8%) of them were grandparents of the participants, while 188 (26.6%) were parents, 14 (2%) were spouses, 2 (0.3%) were children, 79 (11.2%) were aunts and uncles, 31 (4.4%) were siblings, 22 (3.1%) were cousins, 46 (6.5%) were friends, 44 (6.2%) were in-laws, and 71 (10%) were other acquaintances of the participants. Regarding the time elapsed after the death, 243 (34.3%) of the participants reported to experience the loss in less than a year, 144 (20.3%) experienced the loss one year ago, 101 (14.3%) experienced the loss two years ago,
79 (11.2%) experienced the loss three years ago, 80 (11.3%) experienced the loss four years ago, and 19 (2.7%) of the participants experienced the loss five years ago.

Table 2

*Characteristics of the Deceased and the Death*

<table>
<thead>
<tr>
<th></th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>295</td>
<td>41.7</td>
</tr>
<tr>
<td>Male</td>
<td>407</td>
<td>57.5</td>
</tr>
<tr>
<td><strong>Time elapsed after the death</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>243</td>
<td>34.3</td>
</tr>
<tr>
<td>1 year</td>
<td>144</td>
<td>20.3</td>
</tr>
<tr>
<td>2 years</td>
<td>101</td>
<td>14.3</td>
</tr>
<tr>
<td>3 years</td>
<td>79</td>
<td>11.2</td>
</tr>
<tr>
<td>4 years</td>
<td>80</td>
<td>11.3</td>
</tr>
<tr>
<td>5 years</td>
<td>19</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Cause of death</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural anticipated</td>
<td>353</td>
<td>49.9</td>
</tr>
<tr>
<td>Natural sudden</td>
<td>253</td>
<td>35.7</td>
</tr>
<tr>
<td>Violent</td>
<td>97</td>
<td>13.7</td>
</tr>
<tr>
<td><strong>Kinship (relationship)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandparents</td>
<td>204</td>
<td>28.8</td>
</tr>
<tr>
<td>Parents</td>
<td>188</td>
<td>26.6</td>
</tr>
<tr>
<td>Spouses</td>
<td>14</td>
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<tr>
<td>Child</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Aunts and uncles</td>
<td>79</td>
<td>11.2</td>
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<tr>
<td>Siblings</td>
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<tr>
<td>Cousins</td>
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<tr>
<td>Friends</td>
<td>46</td>
<td>6.5</td>
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<tr>
<td>In-laws</td>
<td>44</td>
<td>6.2</td>
</tr>
<tr>
<td>Other acquaintances</td>
<td>71</td>
<td>10</td>
</tr>
</tbody>
</table>
3.3 Data Collection Instruments

In order to collect data, a demographic information form, The Two-Track Model of Bereavement Questionnaire, Social Constraints Scale, Trait Meta-Mood Scale, Ruminative Responses Scale and Emotion Regulation Questionnaire were administered. Before the main study, a pilot study was conducted to examine the reliability and validity of the questionnaires.

3.3.1 Pilot Study

A pilot study was conducted to examine the reliability and validity of The Two-Track Model of Bereavement Questionnaire, Trait Meta-Mood Scale, Ruminative Responses Scale and Emotion Regulation Questionnaire, and to test the factor structure of Social Constraints Scale. Assumption checks and results of the reliability and validity analyses are presented below.

In the first step of the pilot study, prior to the confirmatory factor analysis (CFA), assumptions were checked. The assumptions of CFA are (1) sample size and missing data, (2) normality, (3) outliers, (4) linearity, and (5) multicollinearity (Kline, 2011). First, the data were screened to detect the incorrect or missing values. There were no incorrect entries. However, there were some cases with missing values and the result of the Little’s MCAR test (Little & Rubin, 1987) was significant showing that the missing values were NMAR (not missing at random). As Allison (2002) suggests, to detect the characteristics of the missing cases and examine whether they are different from the completed cases or not, a series of comparisons were conducted. In terms of the gender of the participant, gender of the deceased, circumstances of the death, and closeness to the deceased; chi-square analyses showed no significant difference between the cases with and without missing data. In terms of the time after the death, the age of the participant and the age of the deceased; independent samples t-test results also showed no significant difference between the cases with and without missing data. At this point, researchers suggest different methods to handle the missing data such as listwise deletion, pairwise deletion, dummy variable adjustment, and imputation (Allison, 2002; Little & Rubin,
2002). Since the missing values were less than 5% for each case and there were no significant differences between the cases with missing values and complete cases, and considering the difficulty to find participants for the study; data imputation was applied through EM algorithm. With the imputation, a sample of $n = 323$ was reached which is above the sufficient sample size of 200 to conduct CFA (Kline, 2011).

Second, univariate normality assumption was checked through skewness and kurtosis, Kolmogorov-Smirnov & Shapiro-Wilk values, histograms, Q-Q plots and boxplots. Some of the variables showed non-normal patterns but all of the skewness and kurtosis values were between -3 and +3. According to Tabachnick and Fidell (2007) significant skewness and kurtosis values are ignorable since they “do not deviate enough from normality” (pp. 80) if the sample size is large enough, (i.e.; $n = 200$). Also, for CFA analysis Finney and Distefano (2006) suggested that when the skewness value is smaller than 2 and the kurtosis value is smaller than 7, the distribution can be named as moderately non-normal and maximum likelihood (ML) estimation can be used through the analysis.

The multivariate normality of the data were checked through Mardia’s coefficient test (Tabachnick & Fidell, 2007). The results of the Mardia’s coefficient were non-normal for all of the variables. As it is very common to find non-normal results in research (Byrne, 2001) and considering that all of the participants of this study are bereaved individuals, whom to be expected to derive from the general population, the researcher decided to perform bootstrapping procedure as a remedy for the non-normal data. Bootstrapping is a procedure that creates random “multiple subsamples of the same size as the parent sample” and provides empirical exploration of fit indexes (Byrne, 2001, pp. 268).

Next, both the univariate and multivariate outliers were checked. In order to detect the univariate outliers, $z$-scores were calculated for all variables. There were few cases that could be named as outliers according to Tabachnick and Fidell (2007, pp. 73) as they were out of the range of $\pm 3.29$. Then, to detect the multivariate outliers, Mahalanobis distances were calculated. The critical $\chi^2$ value was 34.528 for $df = 13$, $p < .001$ (Tabachnick & Fidell, 2007) and
there were cases exceeding the critical value thus to be named as multivariate outliers. After this point, two different data sets were created; one with the outliers and one without the outliers. All the analysis were conducted separately and the results showed no difference, thus the outliers were kept in the data set for the rest of the study. After checking the outliers and testing the normality, fourth assumption to check was the linearity of the data. Scatterplots and residual plots are used to check this assumption. Visual inspection of the plots showed no violation of linearity assumption.

In the final step of the assumption check, multicollinearity of the variables were examined through bivariate correlations. All of the correlations were less than $\alpha = .90$, thus there were no multicollinearity problems among the variables (Tabachnick & Fidell, 2007, pp. 88). To better investigate the multicollinearity, Kline (2011) also suggests to check the squared multiple correlations ($R^2$), tolerances ($1 - R^2$), and variance inflation factors (VIF) [$1/ (1 - R^2)$]. According to Kline’s suggestion, all of the multiple correlations should be less than .90, tolerances should be higher than .10, and the variance inflation factors should be less than 10 (2011, pp. 53). In the data set, all the multiple correlations, tolerances, and variance inflation factors satisfied the criteria and the multicollinearity assumption was not violated.

After checking and satisfying the assumptions, a series of confirmatory factor analysis (CFA) were conducted for each questionnaire used in the study via Amos 18 (Arbuckle, 2009). Before running CFA, item parceling technique was used for all of the questionnaires and then the CFAs were conducted. According to Kline (2011) item parceling technique gives the researcher a less crowded data set as well as better reliability values for the items. In order to create parcels, two or more items in the data set are added to create a total score for them. About the number of the items and parcels per factor, Marsh, Hau, Balla, and Grayson (1998) suggested to be cautious on sample size. When the sample size is sufficient ($N > 200$) small numbers of parcels (i.e., two or three parcels) are compensated (Marsh, Hau, Balla, & Grayson, 1998). Bandalos and Finney (2001) suggested that when the data is non-normal, item parcels that are formed by combining the opposite levels of skewness and kurtosis values together provides the best factor solution. Combining the opposite levels of values together to create a balanced
parcel structure is defined as item-to-construct balance by Little, Cunningham, Shahar, and Widaman (2002). Thus, following these suggestions, in the current study, the items to create parcels were decided depending on their skewness and kurtosis values, and using item-to-construct balance technique.

In order to interpret the results of CFA, fit indexes as Root Mean Square of Error of Approximation (RMSEA), The Bentler Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR) were used with model chi-square ($\chi^2$) and chi-square/ degrees of freedom ratio ($\chi^2/df$-ratio) values. Kline (2011) defines three main groups of fit indexes; absolute, comparative (incremental), and parsimony-adjusted. With the aim of reporting one fit index from each group and following Hu and Bentler’s (1999) suggestion to use CFI with SRMR, the fit indexes given above were decided to use in this study.

Before the analysis, the cut points of the fit indexes are summarized to have a better understanding of the results. Chi-square result defined to be small and non-significant in the perfect fit (Kline, 2011; Schumacker & Lomax, 2010). But since chi-square calculation is sensitive to sample size, another alternative as chi-square/ df-ratio was suggested by Wheaton, Muthen, Alwin, and Summers (1977) to be less than 5. More recently Kline (2011) suggests chi-square/ df-ratio to be less than 3. RMSEA values give the comparison of the sample statistics to the population and show the fit of current data to the population. According to Hu and Bentler (1999) a good fit can be named with a value of RMSEA less than .06. Another alternative cut-off was represented by Browne and Cudeck (1993) as RMSEA < .05 indicating good fit, and RMSEA < .08 indicating reasonable fit. Schumacker and Lomax (2010) suggest that RMSEA values between .05 and .08 indicate close fit. MacCallum, Browne, and Sugawara (1996) suggested RMSEA values ranging between .08 and .10 indicate mediocre fit and values above .10 indicate poor fit. MacCallum, Browne and Sugawara (1996) also suggest reporting RMSEA values with the confidence intervals (CI) and indicate that the confidence intervals should be around RMSEA value. About the confidence intervals (CI), Kline (2011) suggests the cut-off points as lower bound of CI ≤ .05 and upper bound of CI ≤ .10. In addition to
confidence intervals, AMOS also calculate the closeness of fit (PCLOSE) and according to Joreskog and Sorbom (1996) this value should be non-significant, i.e., pClose > .05. Both CFI and TLI values range from 0 to 1 and .95 is the cut-off value for both of the fit indices (Hu & Bentler, 1999) and .90 is acceptable for both of the indices (Schumacker & Lomax, 2010). SRMR values ranges from 0 to 1, and smaller values show better fit. A SRMR value less than .08 (Hu & Bentler, 1999) and even .10 (Kline, 2005) is acceptable.

3.3.1 The Two-Track Model of Bereavement Questionnaire (TTBQ)

The Two-Track Model of Bereavement Questionnaire (TTBQ) was developed by Rubin, Bar-Nadav, Malkinson, Koren, Goffer-Shnarch, & Michaeli (2009) to assess the responses to loss over time. TTBQ was originally a 70-item questionnaire with a reliability value of .94. The full 70-item version of the questionnaire yielded 15 factors explaining the 64.9% of the variances. With the deletion of the items under the loading criterion of .40, a 56-item version was revealed. The 56-item questionnaire yielded 5 factors, explaining the 50.5% of the variances. The factors were relational active grieving, close and positive relationship with the deceased, conflictual relationship with the deceased, general biopsychosocial functioning, and traumatic perception of the loss. The reliability values were ranging from .75 for the conflictual relationship with the deceased subscale, to .94 for the relational active grieving subscale (Rubin et al., 2009).

Rubin et al. (2009) also reported that with higher order analysis, the five factors was found to load under two tracks; Track I was assessing the functioning (general biopsychological functioning and traumatic perception of the loss factors) and Track II was assessing the relationship to the deceased (relational active grieving, close and positive relationship with the deceased and conflictual relationship with the deceased factors). For all the factors and on the whole scale, higher scores associated with higher levels of grief, more difficulty and more severe attachment to the deceased (Rubin, et al., 2009). Also, different ways to use the questionnaire were suggested, such as focusing on the total score over five factors or focusing on any of the tracks depending on the purpose of the study or usage of the questionnaire (Rubin, Malkinson, & Witztum, 2012). Sample items include “Since the loss, the meaning of
my life and of the world around me has changed greatly” and “Now I understand people who think about putting an end to their own life after losing a close person”.

Turkish adaptation of the TTBQ was conducted by Ayaz, Karancı, and Aker (2014) with 205 bereaved individuals who had an experience of loss of a loved one. For the validity analysis of the scale, Beck Depression Inventory (BDI) and the Impact of Event Scale - Revised (IES-R) were used. Exploratory factor analysis showed a five-factor solution with slightly different factor structures in terms of the items loaded under the factors. The Cronbach’s alpha coefficients were ranging between .65 and .91. The five-factor structure was also tested in terms of higher order analysis and the Turkish version of the scale confirmed the two track structure (Ayaz, Karancı, & Aker, 2014).

3.3.1.1 Reliability of TTBQ

In order to examine the internal consistency coefficient of TTBQ, Cronbach’s alpha coefficient was computed in the pilot study. Cronbach’s alpha values were $\alpha = .88$ for Relational Active Grieving, $\alpha = .82$ for Close and Positive Relationship with the Deceased, $\alpha = .34$ for Conflictual Relationship with the Deceased, $\alpha = .73$ for General Biopsychosocial Functioning, and $\alpha = .84$ for Traumatic Perception of the Loss in the current study. For conflictual relationship with the deceased factor, Cronbach’s alpha was $\alpha = .66$ after eliminating one of the items however, in order to check that item in the main study, no elimination was done and that item was kept in the data set.

3.3.1.2 Confirmatory Factor Analysis of TTBQ

In the current study, five factor structure was tested for TTBQ. First of all, Turkish factor structure by Ayaz, Karancı, and Aker (2014) was tested and the results showed a poor fit. Turkish adaptation of the scale was conducted by Ayaz, Karancı, and Aker (2014) with EFA (exploratory factor analysis) and the authors reported that there were differences between the
original factor structure and their factor structure. Thus, in the next step of the current study, original factor structure by Rubin, et al. (2009) was tested.

A total of 56 items were tested but 5 items were eliminated from the study because of their low loadings. Item parceling technique was used following suggestions of Bandalos and Finney (2001), Kline (2011), Little, Cunningham, Shahar, and Widaman (2002), and Marsh, Hau, Balla, and Grayson (1998) that were summarized above. A total of 16 parcels (four parcels for Relational Active Grieving, three parcels for Close and Positive Relationship with the Deceased, two parcels for Conflictual Relationship with the Deceased, three parcels for General Biopsychosocial Functioning, and four parcels for Traumatic Perception of the Loss) were created for a total of 51 items based on their skewness and kurtosis values. Results showed poor fit of five factor structure ($\chi^2(94) = 266.056, p < .001, \chi^2/df$-ratio = 2.83, $CFI = .94$, $TLI = .92$, $RMSEA = .08 [90\% CI = .07,.09]$, $p_{Close} < .05$, and $SRMR = .05$). After checking the modification indexes, error terms of item 10 and item 12 were freely estimated and the results showed better fit ($\chi^2(93) = 228.556, p < .001, \chi^2/df$-ratio = 2.46, $CFI = .95$, $TLI = .94$, $RMSEA = .07 [90\% CI = .06,.07]$, $p_{Close} < .05$, and $SRMR = .05$). All standardized estimated were above .40 and all the regression weights were significant.

3.3.1.2 The Social Constraints Scale (SCS)

A 10-item 5-point rating scale was developed to measure the social constraints of the bereaved individuals (Lepore, Silver, Wortman, & Wayment, 1996). Five questions were posed to explore the constraints that the bereaved ones perceive from “the most important person” and “other people” in disclosing trauma-related thoughts and feelings. Factor analysis results revealed that the scale consists of one factor, thus the mean score of the only factor is used to define the degree of social constraints. Higher scores indicate higher social constraint degrees, there is no cut-point. The validity of the scale was analyzed with a study measuring the social constraints of the bereaved mothers at three different times. The scale revealed adequate internal consistency values ranging from .77 at Time1, to .81 at Time2. The reliability value for the scale was found to be .87 (Lepore, Silver, Wortman, & Wayment, 1996). Sample items
include “How often did you feel as though you had to keep your feelings about your ______’s death to yourself because other people made uncomfortable?” and “How often did you feel important other let you down by not showing you as much love and concern as you would have liked?”.

3.3.1.2.1 Translation and Adaptation Process of SCS

Turkish adaptation of the Social Constraints Scale was conducted in this study. In the first step, permission from the author was gathered to use and adapt the scale. Then, the scale was given to five graduate students (1 with English language teaching background, 2 from psychological counseling field, and 1 from educational studies field) who are proficient in both Turkish and English. After they translated the items, all items were compared to find the best translation in terms of meaning. Next, deciding the translated items, back translation to English was conducted to ensure the consistency in the meaning. Then, the scale was given to three academicians (one from English language teaching background, and two from counseling psychology) to acquire a final feedback before administering the scale. With the feedbacks, the translation was finalized and the scale was used in the study.

3.3.1.2.2 Reliability of SCS

In order to examine the internal consistency coefficient of SCS, Cronbach’s alpha coefficient was computed. Cronbach’s alpha value was $\alpha = .80$ for one factor structure of the scale in the pilot study.

3.3.1.2.3 Confirmatory Factor Analysis of SCS

In the current study, one factor structure was tested for SCS. Item parceling technique was used following suggestions of Bandalos and Finney (2001), Kline (2011), Little, Cunningham, Shahar, and Widaman (2002), and Marsh, Hau, Balla, and Grayson (1998) that were summarized above. A total of 5 parcels were created for 10 items based on their theoretical
background. To be more specific, the items asking the same questions for the most significant other and the others were parceled together. Results showed acceptable fit of one factor structure ($\chi^2(5) = 12.956, p < .05, \chi^2/df$-ratio = 2.591, $CFI = .98, TLI = .97, RMSEA = .07$ [90% CI = .02, .12], $pClose > .05$, and $SRMR = .03$). All standardized estimated were above .40, except from one and all the regression weights were significant.

3.3.1.3 Trait Meta-Mood Scale (TMMS)

In order to measure and monitor the durable experience of moods and emotions, *Trait Meta-Mood Scale* (TMMS) was developed by Salovey et al. (1995). This scale was designed to monitor individual differences in terms of attention to moods and emotions, clearly distinguishing and regulating of them. TMMS is a 48-item 5-point Likert-type scale with three subscales; *Attention to Feelings*, *Clarity of Feelings* and *Repair of Mood*. Higher scores on the subscales showed higher levels of attention to feelings, higher levels of clarity of feelings, and higher levels of repair of mood. The authors of the scale then tried to form a shorter version by deleting items with lower loadings. They used 30 items with loadings ≥ .40. After this reduction process, Salovey et al. (1995) found that the internal consistency values of the subscales remained as high as the long version. Therefore, they suggested the short version (30-item version) of TMMS to be more efficient. Sample items include “People would be better off if they felt less and thought more”, “Sometimes I can’t tell what my feelings are” and “I try to think good thoughts no matter how badly I feel”.

Turkish adaptation of TMMS was conducted by Bugay, Aksoz, and Erdur-Baker, (2014). Criterion validity of the questionnaire was tested with The Satisfaction with Life Scale (SWLS), Ruminative Responses Scale (RSS), and Beck Depression Inventory (BDI). Internal consistency was also tested with Cronbach’s alpha, and the results were better than the first study, as $\alpha = .76$ for Attention to Feelings, $\alpha = .73$ for Clarity of Feelings, and $\alpha = .60$ for Repair of Mood. Authors then run the confirmatory factor analysis to see whether the original factor structure suggested by Salovey et al. (1995) or the Turkish factor structure suggested by Aksoz, Bugay, and Erdur-Baker (2010) better fits the Turkish sample. While the Turkish factor structure failed
to show a good fit ($\chi^2(17) = 58.953, p = .00, \chi^2/df$-ratio = 3.468, $CFI = .88, GFI = .90, RMSEA = .08,$ and $SRMR = .05$), the original three-factor structure showed good fit ($\chi^2(24) = 57.751, p = .00, \chi^2/df$-ratio = 2.406, $CFI = .96, GFI = .97, RMSEA = .06,$ and $SRMR = .04$) (Bugay, Aksoz, & Erdur-Baker, 2014).

3.3.1.3.1 Reliability of TMMS

In order to examine the internal consistency coefficient of TMMS, Cronbach’s alpha coefficient was computed. Cronbach’s alpha value was $\alpha = .70$ for Attention to Feelings, $\alpha = .71$ for Clarity of Feelings, and $\alpha = .62$ for Repair of Mood in the pilot study.

3.3.1.3.2 Confirmatory Factor Analysis of TMMS

In the current study, three factor structure was tested for TMMS. Item parceling technique was used following suggestions of Bandalos and Finney (2001), Kline (2011), Little, Cunningham, Shahar, and Widaman (2002), and Marsh, Hau, Balla, and Grayson (1998) that were summarized above. A total of 10 parcels (four parcels for Attention to Feelings, three parcels for Clarity of Feelings and three parcels for Repair of Mood) were created for 30 items based on their mean values. Results showed mediocre fit of three factor structure ($\chi^2(32) = 90.358, p < .001, \chi^2/df$-ratio = 2.824, $CFI = .92, TLI = .89, RMSEA = .08 [90% CI = .06,.09], pClose < .05,$ and $SRMR = .06$). After checking the modification indexes, error terms of item 1 and item 2 were freely estimated and the results showed better fit ($\chi^2(31) = 81.324, p < .001, \chi^2/df$-ratio = 2.623, $CFI = .93, TLI = .90, RMSEA = .07 [90% CI = .05,.09], pClose < .05,$ and $SRMR = .06$). All standardized estimated were above .40 and all the regression weights were significant.

3.3.1.4 Ruminative Response Scale (RRS)

Ruminative Response Scale was developed by Nolen-Hoeksema and Marrow (1991) which is a subscale of ‘Responses Styles Questionnaire’. Ruminative Response Scale (RRS) is a 22-item scale examining the responses to depressed mood. Items are scored on a 4-point rating scale
ranging from 1 (almost never) to 4 (almost always). Test-retest reliability scores of RRS show good values (Nolen-Hoeksema et al., 1994) as internal consistency values (Nolen-Hoeksema & Morrow, 1991). Sample items include “Think about a recent situation, wishing it had gone better” and “Analyze recent events to try to understand why you are depressed”.

More recently, Treynor, Gonzalez, and Nolen-Hoeksema (2003) eliminated the similar items of the Ruminative Responses Scale and they suggested 10 items with 2 factors; brooding and reflection. In a test-retest study, Treynor, Gonzalez, and Nolen-Hoeksema (2003) examined the short (10-item) version of the Ruminative Responses Scale. The internal consistency coefficient for Reflection subscale was \( \alpha = .72 \), and the test-retest correlation was \( r = .60 \). They also found that the internal consistency coefficient for Brooding subscale was \( \alpha = .77 \), and the test-retest correlation was \( r = .62 \). The authors explained low alpha values with the low number of items for each subscale.

Turkish translation of RRS was conducted by Erdur (2002), and used in several studies. Then, Erdur-Baker and Bugay (2012) examined the reliability and validity of both the long (22-item) and the short (10-item) versions of the Ruminative Responses Scale. Depending on the results of the confirmatory factor analysis, the authors suggested that both of the versions showed adequate fit to their data (\( \chi^2(189) = 534.25, p < .001, \chi^2/df\)-ratio = 2.82, CFI = .96, TLI = .91, RMSEA = .07, and SRMR = .05 and \( \chi^2(34) = 91.35, p < .001, \chi^2/df\)-ratio = 2.68, CFI = .97, TLI = .94, RMSEA = .06, and SRMR = .04, respectively). The internal consistency coefficients were \( \alpha = .86 \) for long version, \( \alpha = .85 \) for short version, \( \alpha = .77 \) for reflection subscale, and \( \alpha = .75 \) for brooding subscale (Erdur-Baker & Bugay, 2012). They also reported significant positive correlation between the long and the short versions (\( r = .70, p < .001 \)) and concluded both of the versions are reliable and valid for Turkish sample. Erdur-Baker and Bugay (2012) also reported that one factor structure is widely used in current studies. Since the short version of the scale showed better fit values than the long version, and brooding and reflection subscales work in the same way in Turkish adaptation study (Erdur-Baker & Bugay, 2012), one factor structure of the short version of RRS was used in the current study.
3.3.1.4.1 Reliability of RRS

In order to examine the internal consistency coefficient of RRS, Cronbach’s alpha coefficient was computed. Cronbach’s alpha value was $\alpha = .74$ for Brooding, $\alpha = .76$ for Reflection, and $\alpha = .85$ for one factor structure in the pilot study.

3.3.1.4.2 Confirmatory Factor Analysis of RRS

Since brooding and reflection subscales work in the same way in Turkish adaptation study (Erdur-Baker & Bugay, 2012), one factor structure of the short version of RRS was tested in the current study. Item parceling technique was used following suggestions of Bandalos and Finney (2001), Kline (2011), Little, Cunningham, Shahar, and Widaman (2002), and Marsh, Hau, Balla, and Grayson (1998) that were summarized above. A total of 5 parcels were created for 10 items based on their skewness and kurtosis values. Results showed adequate fit of one factor structure ($\chi^2 (5) = 14.532, p < .001$, $\chi^2/df$-ratio = 2.906, $CFI = .98$, $TLI = .97$, $RMSEA = .08$ [90% CI = .03,.13], $p_{Close} > .05$, and $SRMR = .03$). All standardized estimated were above .40 and all the regression weights were significant.

3.3.1.5 The Emotion Regulation Questionnaire (ERQ)

The Emotion Regulation Questionnaire was developed by Gross and John (2003) in order to measure the individual differences in emotion regulation. The Emotion Regulation Questionnaire is a 10-item 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scale is comprised of two subscales; suppression and reappraisal. The reliability values were reported as .73 for suppression, and .79 for reappraisal subscales. Sample items include “When I want to feel less negative emotion, I change the way I’m thinking about the situation” and “I keep my emotions to myself”. Turkish adaptation of The Emotion Regulation Questionnaire was conducted by Yurtsever (2004). The internal consistency coefficients were $\alpha = .88$ for Reappraisal and $\alpha = .82$ for Suppression. The Pearson correlation coefficient between the two subscales was $r = -.52, p < .01$ (Yurtsever, 2004).
3.3.1.5.1 Reliability of ERQ

In order to examine the internal consistency coefficient of ERQ, Cronbach’s alpha coefficient was computed. Cronbach’s alpha value was $\alpha = .86$ for Reappraisal and $\alpha = .75$ for Suppression in the pilot study.

3.3.1.5.2 Confirmatory Factor Analysis of ERQ

Two factor structure was tested for ERQ in the current study. Results showed poor fit of the two factor structure ($\chi^2(34) = 146.325, p < .05, \chi^2/df$-ratio = 4.304, CFI = .91, TLI = .89, RMSEA = .10 [90% CI = .09,.12], $p_{Close} < .05$, and SRMR = .07). After checking the modification indexes, error terms of item 4 and item 5 were freely estimated and the results showed good fit ($\chi^2(33) = 74.395, p < .05, \chi^2/df$-ratio = 2.254, CFI = .97, TLI = .96, RMSEA = .06 [90% CI = .04,.08], $p_{Close} > .05$, and SRMR = .06). All standardized estimated were above .40 and all the regression weights were significant.

3.3.1.6 Demographic Information Form

A demographic information form with two separate sections were employed to the participants. The first section of the demographic form included questions related to the participants and the second section included questions related to the deceased. Participants were asked to answer the questions considering the most important loss if they had experienced more than one losses during the last five years.

Gender, age, number of children, relationship status (1 = Single, 2 = In a relationship, 3 = Engaged, 4 = Married, 5 = Widowed, 6 = Separated, and 7 = Other), education level (1 = Primary school, 2 = Secondary school, 3 = High school, 4 = College/ University, 5 = Masters, 6 = Ph.D., and 7 = Other), and employment status (1 = Student, 2 = Unemployed, 3 = Housewife, 4 = Full-time worker, 5 = Retired, and 6 = Other) were asked in the first section of the demographic form. Additionally, the participants were asked to define themselves in terms of their religious beliefs (1 = Not
and whether they had psychological help after the loss (0 = No, 1 = Yes). Also, date of death, age at death, circumstances of the death (i.e., the reason of the death such as heart attack, cancer, accident, etc.), participants’ relationship (kinship) to the deceased, and the gender of the deceased (1 = Female, 2 = Male) were the questions of the second section of the demographic form.

3.4 Description of Variables

Relational Active Grieving: The total scores of the Relational Active Grief subscale of The Two-Track Model of Bereavement Questionnaire.

Close and Positive Relationship with the Deceased: The total scores of the Close and Positive Relationship with the Deceased subscale of The Two-Track Model of Bereavement Questionnaire.

Conflictual Relationship with the Deceased: The total scores of the Conflictual Relationship with the Deceased subscale of The Two-Track Model of Bereavement Questionnaire.

General Biopsychosocial Functioning: The total scores of the General Biopsychosocial Functioning subscale of The Two-Track Model of Bereavement Questionnaire.

Traumatic Perception of the Loss: The total scores of the Traumatic Perception of the Loss subscale of The Two-Track Model of Bereavement Questionnaire.

Social Constraints: The total score of the Social Constraints Scale.

Attention to Feelings: The total score of Attention to Feelings subscale of Trait Meta-Mood Scale.

Clarity of Feelings: The total score of Clarity Feelings subscale of Trait Meta-Mood Scale.
**Repair of Mood:** The total score of Repair of Mood subscale of Trait Meta-Mood Scale.

**Rumination:** The total score of the short (10-item) version of the Ruminative Responses Scale.

**Reappraisal:** The total score of the Reappraisal subscale of the Emotion Regulation Questionnaire.

**Suppression:** The total score of the Suppression subscale of the Emotion Regulation Questionnaire.

### 3.5 Data Analysis

The purpose of this study was to examine the relationships among the social constraints and cognitive and emotional strategies, and their impact on the grief process. The relationships among social constraints, cognitive and emotional strategies (meta-mood, emotion regulation and rumination), and adjustment to grief were subject of this study. In order to examine the relationships mentioned above, structural equation modeling (SEM) technique was used. Before the analysis, data were screened to detect any possible incorrect entries. Missing values were analyzed with Missing Value Analysis (MVA) to examine if the missing values had a pattern. Then, the assumptions (normality, outliers, multicollinearity, and homoscedasticity) were checked. Finally, SEM was conducted via AMOS 18 (Arbuckle, 2009).

### 3.6 Limitations of the Study

The current study has some limitations. While reading the findings, these limitations should be taken into consideration. First of all, in the present study, the sampling method was non-random sampling. Therefore, results of the study should be evaluated considering the sampling method. The results of the study may show different patterns with different samples. Also, because the sampling was not randomized, the participants were not in equal numbers in terms of necessary demographic variables such as their gender, closeness to the
deceased (i.e., participants’ relationship to the deceased) circumstances of the death (i.e., the reason of the death such as heart attack, cancer, accident, etc.), and time elapsed since the death. These variables are considered to have important impacts on the grief process. Thus, further research should take this limitation into consideration during the design of the study to reach balanced samples for the necessary demographic variables.

Next limitation was related to the research method; the study was conducted in one time point and thus, the relationship between time after the death and the general functioning of the bereaved individuals was examined through cross sectional analyzes. However, in order to interpret the effect of time on the functioning of the bereaved individuals, longitudinal research design should be used in further studies.

Another limitation of this study was administering self-report measures. In a study like the current one, participants may give socially desirable answers, especially in the social and emotional parts. Since there is no other measurement technique to assess the emotions or social constraints of the participants, self-report measurement techniques are frequently used.
CHAPTER 4

RESULTS

This chapter presents the results of the main analyses of the study. For the current study, a pilot and a main data sets were used for different purposes. In the first step, a pilot study was conducted to test the reliability and the validity of the questionnaires. Results of the pilot study were presented in the previous section. Then, the main analyses of the study were conducted with the second data set. In this section, findings of the main analyses (i.e., preliminary analyses, descriptive analyses and tests of measurement model and structural model) were reported. Preliminary analyses included missing value analysis, checking for the outliers, and normality, linearity, homoscedasticity and multicollinearity assumptions of the analyses. Then, the results of the descriptive analyses were given to explore the characteristics of the individuals with a grief experience. In the next step, the results of the measurement model were explained to prove the validity of the measurement tools used in the current study. Finally, the findings of the structural model that was tested with the bereaved participants were presented.

4.1 Preliminary Analyses

In the first step, before running the main analyses, data were screened to control the appropriateness of the data. Missing data and influential outliers were checked via PASW 18 and sample size adequacy was controlled before running the analysis. Then the assumptions of SEM (normality, linearity, homoscedasticity, normality of residuals and multicollinearity) were checked via SPSS 21 and 22.
4.1.1 Sample Size and Missing Data

The data were screened to detect the incorrect or missing values. While checking for the demographic section, seven cases were found to be not related with death loss. Those cases with an experience of pet loss or separation loss were eliminated from the data set as the main purpose of the study was understanding the mechanisms of a death loss. Furthermore, there were 15 cases with extreme missing values (i.e., leaving one of the questionnaires completely empty) which were also eliminated from the data set. Thus, the sample size was $n = 712$ after the elimination of 22 cases. Little’s MCAR test (Little & Rubin, 1987) was calculated and the results were significant for Relational Active Grieving (RAG), Attention to Feelings and Rumination variables, showing that the missing values were NMAR (not missing at random).

At this point, following Allison’s (2002) suggestions, a series of chi-squares and t-tests were conducted to identify the characteristics of the missing cases and explore the differences between the completed and the missing cases. In terms of the gender of the participant, gender of the deceased, circumstances of the death, and closeness to the deceased; chi-square analyses showed no significant difference between the cases with and without missing data. In terms of the time elapsed after the death, the age of the participant and the age of the deceased; ANOVA results also showed no significant difference between the cases with and without missing data. Furthermore, the relationships among NMAR variables (RAG, Attention to Feelings and Rumination) and other variables used in the study were examined with independent sample t-tests. Results showed no significant relationships between RAG and other variables. On the other hand, there were significant relationships between Attention to Feelings and Confictual Relationships with the Deceased, Biopsychosocial Functioning, and Social Constraints variables in terms of missingness. However, as there were no direct relationships among these variables in the hypothesized structural model, and since the missing values were less than 5% for each case, the researcher decided to apply data imputation through EM algorithm. With the imputation, 712 cases were in the data set which was above the sufficient sample size of 200 to conduct SEM (Kline, 2011).
4.1.2 Influential Outliers

In the current study, both the univariate and multivariate outliers were checked. In order to detect the univariate outliers, z-scores were calculated for all variables. There were few cases that could be named as outliers according to Tabachnick and Fidell (2007, pp. 73) as they were out of the range of $\pm 3.29$. Before making a decision about how to handle with the univariate outliers, multivariate outliers were checked via Mahalanobis distance values. The critical $\chi^2$ value was 32.909 for $df = 12$, $p < .001$ (Tabachnick & Fidell, 2007) and there were cases exceeding the critical value thus to be named as multivariate outliers. As the number of multivariate outliers were small, and their Mahalanobis distances values were extremely high, the researcher decided to eliminate them from the data set. The final data set consisted of 708 cases.

4.1.3 Assumptions of SEM

After the screening of the date and examining the missing values and the outliers, assumptions of SEM were checked. Results of the normality, linearity, homoscedasticity, normality of residuals, and multicollinearity assumptions are reported for the current study.

4.1.3.1 Normality

Univariate normality assumption was checked through skewness and kurtosis values, Kolmogorov-Smirnov & Shapiro-Wilk values, histograms, Q-Q plots and boxplots. Some of the variables showed non-normal patterns but all of the skewness and kurtosis values were between -3 and +3 (Table 3). According to Tabachnick and Fidell (2007) skewness and kurtosis values are ignorable values if the sample size is large enough, (i.e.; $n = 200$). Also, for SEM analysis Finney and Distefano (2006, pp. 298) suggested that even when the skewness value is smaller than 3 and the kurtosis value is smaller than 7, the distribution can be named as moderately non-normal and maximum likelihood (ML) estimation can be used through the analysis. Kline (2011, pp. 63) also suggested that a skewness value bigger than 3, and kurtosis value bigger than 10 can be problematic, but the values below these criterions can be analyzed.
with ML estimation. Since there were no skewness and kurtosis values above and below the \( \pm 3 \) threshold, ML estimation was used for the current analyses.

Table 3  
*Means, Standard Deviations, Skewness, and Kurtosis Values for Items and Parcels*

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Table 3 (continued)

Means, Standard Deviations, Skewness, and Kurtosis Values for Items and Parcels

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Then, multivariate normality of the data were checked through Mardia’s coefficient test (Tabachnick & Fidell, 2007). The results of the Mardia’s coefficient were non-normal for the majority of the variables in the data set. As it is very common to find non-normal results in research (Byrne, 2001) and considering that all of the participants of this study are bereaved individuals, whom to be expected to derive from the general population, the researcher decided to perform bootstrapping procedure as a remedy for the non-normal data. Bootstrapping is a procedure that creates random “multiple subsamples of the same size as the parent sample” and provides empirical exploration of fit indexes (Byrne, 2001, pp. 268).

4.1.3.2 Linearity, Homoscedasticity and Normality of Residuals

Through the histograms, normal P-P plots, scatterplots, and partial regression plots of residuals; linearity, homoscedasticity and normality of residuals assumptions were checked. The visual inspection of plots showed elliptical shapes which could be interpreted as random patterns (Stevens, 2009) for all of the variables for the current study. Thus, all three assumptions were validated in the current study. Scatterplots of the dependent variables of the study (Relational Active Grieving and Biopsychosocial Functioning) are presented in Figure 2 and Figure 3, below. Some examples of the histograms, normal P-P plots of residual, and partial regression plots were given in Appendix B.
**Figure 2.** Scatterplot for Relational Active Grieving variable.

**Figure 3.** Scatterplot for Biopsychosocial Functioning variable.
4.1.3.3 Multicollinearity

In the final step of the assumption check, multicollinearity of the variables were examined through bivariate correlations. All of the correlations were less than \( \alpha = .90 \), ranging between -.34 and .76 (Table 3), thus there were no gross multicollinearity problems among the variables (Tabachnick & Fidell, 2007, pp. 88). The bivariate correlations among the variables were presented in Table 4. To better investigate the multicollinearity, Kline (2011) also suggests to check the squared multiple correlations (\( R^2 \)), tolerances (1 - \( R^2 \)), and variance inflation factors (VIF) \( \frac{1}{1 - R^2} \). According to Kline’s suggestion, all of the multiple correlations should be less than .90, tolerances should be higher than .10, and the variance inflation factors should be less than 10 (2011, pp. 53). In the current data set, multiple correlation values ranged between .38 and .83, tolerance values ranged between .17 and .62, and variance inflation factors ranged between 1.61 and 5.88. Since all of the values were satisfying the criterions, the multicollinearity assumption was not violated.

4.1.4 Reliability of the Questionnaires

In the current study, reliability of the questionnaires were controlled for the main data before the model testing. In order to examine the internal consistency coefficients of the questionnaires, Cronbach’s alpha coefficients were computed. Cronbach’s alpha coefficients were \( \alpha = .89 \) for Relational Active Grieving, \( \alpha = .88 \) for Traumatic Perception of Loos, \( \alpha = .82 \) for Close and Positive Relationships with the Deceased, \( \alpha = .75 \) for Conflictual Relationships with the Deceased, and \( \alpha = .75 \) for Biopsychosocial Functioning in Two-Track Bereavement Questionnaire. Internal consistency coefficients were \( \alpha = .80 \) for Attention to Feelings, \( \alpha = .79 \) for Clarity of Feelings, and \( \alpha = .68 \) for Repair of Mood in Trait Meta-Mood Scale. Cronbach’s alpha coefficients were \( \alpha = .88 \) for Reappraisal and \( \alpha = .81 \) for Suppression in Emotion Regulation Questionnaire. Finally, reliability values were \( \alpha = .83 \) for Social Constraints Scale and \( \alpha = .87 \) for Ruminative Responses Scale.
Table 4

Bivariate Correlations among the Variables

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<th>Functioning</th>
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RAG: Relational Active Grieving, Traumatic Perception: Traumatic Perception of Loss, Functioning: Biopsychosocial Functioning. *p < .05, **p < .01
4.2 Descriptive Analyses

Before running the main analyses, a series of ANOVAs were conducted via SPSS 21 in order to examine the relationship among the demographic structures of the participants and the grief related variables.

In the first step, one-way ANOVAs were conducted to explore whether relational active grieving shows difference in terms of gender of the participants, gender of the deceased, death condition (i.e., natural anticipated, natural sudden and violent), religious beliefs of the participants, and time elapsed since the death. Homogeneity of variance assumption was not violated except for gender of the deceased and time elapsed since the death. However, since the $F$-test is robust for the homogeneity of variance test, analyses were conducted after setting the alpha level at $\alpha = .04$. Results of the ANOVAs showed that only gender of the participants had a significant effect on relational active grieving $F(1, 706) = 20.28, p < .008$ indicating that females ($M = 41.73, SD = 12.85$) experienced more intense contact with the deceased ones than males ($M = 37.08, SD = 11.90$). All of the results of the ANOVAs conducted to see the differences in relational active grieving variable are presented in Table 5.

In the next step, one-way ANOVAs were conducted for biopsychosocial functioning with the same variables. Homogeneity of variance assumption was not violated except for death condition. However, since the $F$-test is robust for the homogeneity of variance test, analyses were conducted after setting the alpha level at $\alpha = .04$. Results of the ANOVAs showed that none of the variables had a significant effect on biopsychosocial functioning. All of the results of the ANOVAs conducted to see the differences in biopsychosocial functioning variable are presented in Table 5.
Table 5
One-Way ANOVA Results for the Differences in Relational Active Grieving and Biopsychosocial Functioning

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*p < .008
Moreover, in the light of the related literature, a two-way MANOVA was conducted to understand the effects of gender differences and differences in time elapsed since the death among the independent variables of the study (i.e., meta-mood processes, emotion regulation strategies, rumination, and social constraints). Assumptions of MANOVA were checked and since homogeneity of variance and homogeneity of covariance matrices assumptions were alpha was set at $\alpha = .04$ and Pillai’s Trace criterion was used to report the results (Table 6).

Table 6

**MANOVA for Social, Cognitive, and Emotional Variables**

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<th>Univariate</th>
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<td>Suppression</td>
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Results of the MANOVA revealed that gender had a significant main effect on the independent variables $F(7, 648) = 6.68, p < .04$, but there were no significant main effect of time since the death and the interaction of gender and time since the death was also not significant (Table 6). When explored separately, gender was found to have significant main effects on attention to feelings $F(1, 654) = 21.01, p < .006$, rumination $F(1, 654) = 8.279, p < .006$, and suppression $F(1, 654) = 8.279, p < .006$. It was found that females showed higher levels of attention to feelings ($M = 47.91, SD = 8.30$) and rumination ($M = 22.09, SD = 5.92$) than males ($M = 44.07, SD = 8.20$ and $M = 20.64, SD = 5.64$, respectively). However, males used higher levels of suppression ($M = 16.28, SD = 5.33$) than females ($M = 13.60, SD = 5.46$). Plots for significant mean differences are presented in Figure 4, 5, and 6 below.

![Estimated Marginal Means of Attention to Feelings](image)

**Figure 4.** Mean differences of females and males for Attention to Feelings.
Figure 5. Mean differences of females and males for Rumination.

Figure 6. Mean differences of females and males for Suppression.
And in the final step of the descriptive analyses, a two-way MANOVA was conducted to test the interaction effect of gender and time elapsed since the death on the dependent variables (i.e., relational active grieving and biopsychosocial functioning). Results of the MANOVA revealed that gender \((F(2, 653) = 8.683, p < .04)\) and time since the death \((F(10, 1306) = 2.438, p < .04)\) both had significant main effects on the dependent variables. However there was no significant effect of the interaction of gender and time since the death (Table 7). When explored separately, gender was found to have significant main effect on relational active grieving \(F(1, 654) = 12.551, p < .02\). Plot for significant mean differences in relational active grieving variable is presented in Figure 7, below. Although significant mean differences were observed between females and males for relational active grieving, unequal sample sizes for the groups may have the potential to influence the results (Montgomery, 2012). Moreover, according to Kline (2011), small sample sizes are relatively weak to test multigroup invariances (pp. 261). Thus, gender was not included in the analysis as control variables, similar to the studies in the relevant literature.

Table 7

| MANOVA for Relational Active Grieving and Biopsychosocial Functioning |
|------------------|------------------|------------------|------------------|
|                  | Multivariate     |                  | Univariate       |                  |
|                  | \(F\)            | \(p\)            | \(\eta^2\)       | \(F\)            | \(p\)            | \(\eta^2\)       |
| Gender           | 8.683\(^a\)      | \(.000^*\)       | .026             | 12.551\(^c\)     | \(.000^{**}\)    | .019             |
| RAG              |                  |                  |                  |                  |                  |                  |
| Functioning      |                  |                  |                  |                  |                  |                  |
| Time since Death | 2.438\(^b\)      | \(.007^*\)       | .018             | 1.590\(^d\)      | \(.161\)         | .012             |
| RAG              |                  |                  |                  |                  |                  |                  |
| Functioning      |                  |                  |                  |                  |                  |                  |
| Gender*Time      | 1.465\(^b\)      | \(.147\)         | .011             | .569\(^d\)       | \(.724\)         | .004             |
| RAG              |                  |                  |                  |                  |                  |                  |
| Functioning      | .931\(^d\)       | \(.460\)         | .007             |                  |                  |                  |

\(^a\) Multivariate \(df = 2, 653\). \(^b\) Multivariate \(df = 10, 1306\). \(^c\) Univariate \(df = 1, 654\). \(^d\) Univariate \(df = 5, 654\). \(^*\) \(p < .04\). \(^{**}\) \(p < .02\).
Figure 7. Mean differences of females and males for Relational Active Grieving.

4.3 Results of the Model Testing

The results of the measurement model and the hypothesized structural model for the current study were presented in this section. In the first step, a measurement model was specified to explore the relationships among the study variables. Then, the hypothesized structural model was tested using Structural Equation Modeling techniques. Results of the hypothesized structural model were reported focusing on the direct and indirect effects, simultaneously. At the end of the section, squared multiple correlations for the hypothesized structural model were given.

4.3.1 Measurement Model

A measurement model is basically a confirmatory factor analysis (CFA) specified to define the relationships among the latent and the observed variables (Schumacker & Lomax, 2010). For the current study, the measurement model was tested with the latent variables of relational active grieving, close and positive relationship with the deceased, conflictual relationship with the deceased, traumatic perception of loss, general biopsychosocial functioning, attention to
feelings, clarity of feelings, repair of mood, social constraints, rumination, reappraisal and suppression. Results of CFA showed good fit of the measurement model ($\chi^2(920) = 223.330, p < .001, \chi^2/df$-ratio = 2.42, CFI = .93, TLI = .92, RMSEA = .045 [90% CI = .042, .047], $p_{Close} > .05$, and SRMR = .05). All standardized estimated were above .40 except for one and all the regression weights were significant. However, there was multicollinearity between relational active grieving and traumatic perception of death ($\alpha = .83$). Considering the multicollinearity issue for traumatic perception of death and theoretical background of the Two-Track Model of Bereavement Questionnaire, traumatic perception of loss was eliminated from the study.

With this final step, measurement model was tested again without the latent variable of traumatic perception of loss (Figure 8). Results of CFA showed good fit of the measurement model ($\chi^2(762) = 1904.405, p < .001, \chi^2/df$-ratio = 2.50, CFI = .93, TLI = .92, RMSEA = .046 [90% CI = .043, .049], $p_{Close} > .05$, and SRMR = .05). All standardized estimated were above .40 except for one and all the regression weights were significant (Table 8). Subsequently, latent correlations were presented in Table 9.

| Table 8 |
|------------------|------------------|-----------------|------------------|
| **Standardized Regression Weights of the Final Measurement Model** |

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*Standardized Regression Weights of the Final Measurement Model*

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Figure 8. Standardized estimates of the final measurement model.
Table 9
Latent Correlations in Measurement Model

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RAG: Relational Active Grieving, Functioning: Biopsychosocial Functioning. *p < .05. **p < .01. ***p < .001
4.3.2 Hypothesized Structural Model

The hypothesized structural model aimed to investigate the relationships among the social constraints and cognitive and emotional strategies (i.e., meta-mood, rumination, and emotion regulation) and the grief process. Since there was multicollinearity in the measurement model, traumatic perception of loss variable was eliminated from the model.

4.3.2.1 Results of the Hypothesized Structural Model

Hypothesized model was tested via bootstrapping method with 2000 bootstrapped samples and 95% confidence interval to estimate indirect effects of mediational variables and also to handle with the potential effects of non-normal data. In order to interpret the results of SEM, fit indexes as Root Mean Square of Error of Approximation (RMSEA), The Bentler Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR) were used with model chi-square ($\chi^2$) and chi-square/ degrees of freedom ratio ($\chi^2$/df-ratio) values, similar to CFA.

Before the analysis, the cut points of the fit indexes are summarized to have a better understanding of the results. Chi-square result defined to be small and non-significant in the perfect fit (Kline, 2011; Schumacker & Lomax, 2010). But since chi-square calculation is sensitive to sample size, another alternative as chi-square/ df-ratio was suggested by Wheaton, Muthen, Alwin, and Summers (1977) to be less than 5. More recently Kline (2011) suggests chi-square/ df-ratio to be less than 3. RMSEA values give the comparison of the sample statistics to the population and show the fit of current data to the population. According to Hu and Bentler (1999) a good fit can be named with a value of RMSEA less than .06. Another alternative cut-off was represented by Browne and Cudeck (1993) as RMSEA < .05 indicating good fit, and RMSEA < .08 indicating reasonable fit. Schumacker and Lomax (2010) suggests that RMSEA values between .05 and .08 indicate close fit. MacCallum, Browne, and Sugawara (1996) suggested RMSEA values ranging between .08 and .10 indicate mediocre fit and values above .10 indicate poor fit. MacCallum, Browne and Sugawara (1996) also suggest reporting RMSEA values with the confidence intervals (CI) and indicate that the confidence intervals should be around RMSEA value. About the confidence intervals (CI), Kline (2011) suggests
the cut-off points as lower bound of CI ≤ .05 and upper bound of CI ≤ .10. In addition to confidence intervals, AMOS also calculate the closeness of fit (PCLOSE) and according to Joreskog and Sorbom (1996) this value should be non-significant, i.e., pClose > .05. Both CFI and TLI values range from 0 to 1 and .95 is the cut-off value for both of the fit indices (Hu & Bentler, 1999) and .90 is acceptable for both of the indices (Schumacker & Lomax, 2010). SRMR values ranges from 0 to 1, and smaller values show better fit. A SRMR value less than .08 (Hu & Bentler, 1999) and even .10 (Kline, 2005) is acceptable.

In the light of the suggested cut points for the fit indices, results showed acceptable fit of the hypothesized structural model ($\chi^2(784) = 2123.213, p < .001, \chi^2/df$-ratio = 2.71, $CFI = .91$, $TLI = .90$, $RMSEA = .049$ [90% CI = .047,.052], $pClose > .05$, and $SRMR = .06$). Furthermore, the measurement portion of the model showed that the indicators (items and parcels) in the model significantly explained their latent variables, with a range of factor loadings between .31 and .96. Figure 9 shows the hypothesized structural model. In the figure, only the latent variables were given for visual ease.
Figure 9. Hypothesized structural model.
4.3.2.2 Direct Effects for the Hypothesized Structural Model

Direct effects in the hypothesized model were pictured in Figure 10, lines showing the significant paths and dashed lines showing the non-significant paths. More specifically, the variables with significant direct effects on relational active grieving were rumination ($\gamma = .12$, $p < .05$), social constraints ($\gamma = .21$, $p < .01$), close and positive relationship with the deceased ($\gamma = .65$, $p < .01$), and conflictual relationship with the deceased ($\gamma = .21$, $p < .01$). These results show that when the bereaved individuals’ perception of conflictual or close and positive relationship with the deceased increases, their relational active grieving scores increased. That is, even having conflictual or close relationship with the deceased influenced the active grieving process positively. Moreover, rumination and perception of social constraints also had positive effects on the active grieving process. Which shows that when the ruminative responses and the perception of social constraints were high, the bereaved individuals’ active grieving process increased, too. The direct effects of reappraisal, suppression and repair of mood variables on relational active grieving were not significant, contrary to the suggested structural model.

As seen from Figure 10, the variables with significant direct effects on biopsychosocial functioning were repair of mood ($\gamma = -.35$, $p < .01$), rumination ($\gamma = .23$, $p < .01$), reappraisal ($\gamma = -.13$, $p < .01$), social constraints ($\gamma = .20$, $p < .01$), close and positive relationship with the deceased ($\gamma = .25$, $p < .01$), and conflictual relationship with the deceased ($\gamma = .15$, $p < .01$). These results reveal that higher scores on close and positive relationship and conflictual relationship with the deceased both result in increases of problems with functioning of the bereaved individuals. Furthermore, higher levels of ruminative response style and perception of social constraints result in increases of problems with functioning. However, higher levels of repair of mood and reappraisal of the situation leads to decrease of problems with functioning. The direct effect of suppression on biopsychosocial functioning was not significant, contrary to the suggested structural model. Beside the significant direct effect on relational active grieving and biopsychosocial functioning, close and positive relationship with the deceased also had a significant small direct effect on suppression ($\gamma = .09$, $p < .05$). The direct effect of close and positive relationship with the deceased on reappraisal was not significant, contrary to the suggested structural model. The findings can be interpreted as the closer and more positive relationships the participants had with the deceased individuals, the more they suppressed their emotions. Moreover, conflictual relationship with the deceased
also had significant direct effects on social constraints \((\gamma = .22, p < .01)\) and rumination \((\gamma = .24, p < .01)\), indicating that when conflict increases in the relationship with the deceased, participants perceived more constraints from their social network and ruminated more. However, there were no significant direct effect of conflictual relationship with the deceased on suppression, contrary to hypothesized model.

When the direct effects among cognitive and emotional variables were examined, attention to feelings found to have significant direct effects on clarity of feelings \((\gamma = .36, p < .01)\), repair of mood \((\gamma = .11, p < .05)\), and suppression \((\gamma = .43, p < .01)\), but no significant direct effect was observed on reappraisal, contrary to the suggested model. These findings revealed that when the individuals attended to their feelings more, they had better understanding of their feelings, leading to clarify their emotions and also if necessary, leading to change the emotional mood they’re in. Also, when the bereaved individuals attended their feelings more, they suppressed their emotions less. Moreover, clarity of feelings also had significant positive direct effects on repair of mood \((\gamma = .29, p < .01)\) and reappraisal \((\gamma = .16, p < .05)\). That is, when the individuals clarified their feelings, they could repair their mood and reappraised their situation better. Rumination had significant positive direct effects on attention to feelings \((\gamma = .24, p < .01)\) and social constraints \((\gamma = .36, p < .01)\), and significant negative direct effects on clarity of feelings \((\gamma = .46, p < .01)\) and repair of mood \((\gamma = .42, p < .01)\). In other words, when the bereaved individuals had more ruminative responses, they attended to their emotions more, and their perception of social constraints increased, however, they had difficulties with clarifying their emotions and repairing their mood. All suggested direct effects of rumination were significant. Final emotional variables tested in the model were suppression and reappraisal. Suppression had a significant direct effect on rumination \((\gamma = .20, p < .01)\), but the direct effect of reappraisal on rumination was not significant. That is, bereaved individuals who were suppressing their emotions were using higher levels of ruminative responses.

Finally, as seen in Figure 10, social constraints found to have significant negative direct effect on reappraisal \((\gamma = -.12, p < .05)\). That is, when the bereaved individuals had greater perception of constraints from their social environment, they had difficulties in reappraising the situation. However, there was no significant direct effect of social constraints on suppression. All direct, indirect, and total effects and their significance levels are given in Table 10.
Figure 10. Hypothesized structural model with significant and non-significant paths.
Table 10

Standardized Direct, Indirect, and Total Effects for the Hypothesized Structural Model

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*p < .05. **p < .01. ***p < .001.
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**Standardized Direct, Indirect, and Total Effects for the Hypothesized Structural Model**

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<td>Repair of Mood</td>
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*p < .05. **p < .01. ***p < .001.
4.3.2.3 Indirect Effects for the Hypothesized Structural Model

As seen from Table 10, some of the indirect effects were significant in the model, in addition to direct effects. The indirect effects were discussed starting from meta-mood variables (i.e., attention to feelings, clarity of feelings, and repair of mood), and continuing with emotion regulation variables (i.e., reappraisal and suppression), rumination, and social constraints. And finally the indirect effects of bereavement related variables (close and positive relationship with the deceased and conflictual relationship with the deceased) were discussed.

Attention to feelings had no direct effects on relational active grieving and biopsychosocial functioning, but it had significant indirect effects on both of the exogenous variables. The indirect effect of attention to feelings on relational active grieving was small and negative (-.03), following through four possible pathways; (a) through clarity of feelings and repair of mood, (b) through repair of mood, (c) through suppression and rumination, and finally (d) through suppression, rumination, and social constraints. That is, bereaved individuals who attended their emotions more, also reported to clarify their emotions better, and repairing their mood better, that decreasing their relational active grieving. Alternatively, higher levels of attention to feelings was correlated with lower suppression, lower rumination and lower levels of relational active grieving.

The indirect effect of attention to feelings on biopsychosocial functioning was also negative (-.14), following through five possible pathways; (a) through clarity of feelings and reappraisal, (b) through clarity of feelings and repair of mood, (c) through repair of mood, (d) through suppression and rumination, and finally (e) through suppression, rumination, and social constraints. That is, bereaved individuals who attended their emotions more, also reported to clarify their emotions better, and repairing their mood better, that decreasing their biopsychosocial functioning scores. Or, bereaved individuals who attended their emotions more, also reported to clarify their emotions better, and reappraising their situation better, and have lower levels of biopsychosocial functioning. Alternatively, higher levels of attention to feelings was correlated with lower suppression, lower rumination and lower levels of biopsychosocial functioning.
In terms of the indirect effect of attention to feelings and endogenous variables of the study, attention to feelings had significant small positive indirect effects on clarity of feelings, repair of mood, and attention to feelings (.03, .15, and -.02, respectively). That is, attention to feelings predicted clarity of feelings, repair of mood, and attention to feelings through suppression and rumination. In other words, individuals who reported to attend their emotions, also reported to suppress their emotions less, showed lower levels of ruminative responses, and finally attending their emotions less, but clarifying their emotions more, and repairing their mood more. Moreover, attention to feelings had a significant small negative indirect effect on social constraints (-.03) through suppression and rumination. That is, individuals who reported to attend their emotions more, also reported that they suppressed their emotions less, ruminated less, and finally perceiving constraints from their social network less. Additionally, attention to feelings had small significant indirect effects on reappraisal (.07) and rumination (-.09). The indirect effect on reappraisal followed a pathway of suppression, rumination, and social constraints, which could be explained in a way that bereaved individuals who attended to their emotions more, suppressed their emotions less, ruminated less, and perceived less social constraints, and reappraising their situation more. Or, that bereaved individuals who attended to their emotions more, suppressed their emotions less and ruminated less. Clarity of feelings had significant indirect effects on relational active grieving (-.03) and on biopsychosocial functioning (-.13). The indirect effect on relational active grieving was possible through repair of mood. In other words, bereaved individuals who reported to clarify their feelings also reported to repair their mood better and have lower levels of relational active grieving. In terms of biopsychosocial functioning, the significant indirect effect of clarity of feelings was observed through two pathways; (a) through reappraisal and (b) through repair of mood. That is, bereaved individuals who reported to clarify their feelings, also reported to reappraise their situation more, and have lower levels of dysfunctioning. Similarly, bereaved individuals who reported to clarify their feelings also reported to repair their mood better and have lower levels of dysfunctioning. Clarity of feelings also had significant but small indirect effects on attention to feelings (-.01), repair of mood (.01), clarity of feelings (.01), social constraints (-.01), suppression (.00), reappraisal (.00), and rumination (-.02). These indirect effects mostly observed through (a) suppression and (b) through suppression and rumination. That can be explained in a way that bereaved individuals with better clarifying abilities also reported to have better attention to their feelings and less
suppressing their emotions, and finally less use of ruminative responses. The final variable of meta-mood processes was repair of mood. However, it was found that repair of mood had no significant indirect effect on neither endogenous variables nor exogenous variables.

Continuing with the emotion regulation variables, reappraisal only had small significant indirect effects on suppression (.01) and reappraisal (.02). The indirect effect on suppression followed a pathway through rumination and attention to feelings. That is, bereaved individuals who reported to suppress their emotions also reported to ruminate more, and attend to their emotions more, and suppress their emotions less. The indirect effect on reappraisal followed a pathway through (a) rumination and clarity of feelings, or (b) rumination, attention to feelings, and clarity of feelings. In other words, bereaved individuals who reported to reappraise their situations more, reported to ruminate less, and clarify their emotions better and reappraise their situation more, or ruminate less and attend to their emotions less, and clarify their emotions less, and finally reappraise their situation less. Other indirect effects of reappraisal were nonsignificant. Similarly, suppression had small significant indirect effects on suppression (-.02) and reappraisal (-.02). The indirect effect on reappraisal followed a pathway through (a) rumination and social constraints and (b) rumination, attention to feelings and clarity of feelings. And the indirect effect on suppression followed a circular pathway through rumination and attention to feelings. That is, bereaved individuals who reported to suppress their emotions, ruminated more, attended to their emotions more and suppressed their emotions more. Or, participants with higher levels of suppression also reported higher levels of rumination, reported to perceive higher levels of constraints from their social network, and lower reappraisal of their situation. Furthermore, suppression had significant indirect effects on social constraints (.07), attention to feelings (.05), clarity of feelings (-.07), and repair of mood (-.10) through rumination. That can be verbalized in a way that bereaved individuals with higher levels of suppression reported to ruminate more and perceive more constraints, report higher levels of attention to their feelings, lower levels of clarity of feelings, and lower levels of repair of mood. Finally, in terms of emotion regulation variables, suppression had significant indirect effects on relational active grieving (.05), and biopsychosocial functioning (.10). The indirect effect on both exogenous variables followed two main pathways; (a) through rumination, and (b) through rumination and social constraints. That is, bereaved individuals who suppress their emotions, ruminated more and
had higher levels of relational active grieving and biopsychosocial functioning. Or, bereaved individuals who suppress their emotions, ruminated more, perceived more constraints, and had higher levels of relational active grieving and biopsychosocial functioning.

Proceeding with the rumination, significant indirect effects on relational active grieving (.13) and biopsychosocial functioning (.26) were observed as well as on clarity of feelings (.09), reappraisal (-.11), and suppression (-.10). The indirect effects on relational active grieving and biopsychosocial functioning were observed through social constraints. That is, bereaved individuals who reported higher levels of rumination, also reported higher perception of social constraints, and higher scores on relational active grieving and biopsychosocial functioning. Moreover, the indirect effects on clarity of feelings and suppression were through attention to feelings, that is participants who reported to ruminate more, also reported to attend to their emotions more and both clarify their emotions better and suppress their emotions more. And finally, the indirect effect of rumination on reappraisal was observed through attention to feelings and clarity of feelings. In other words, bereaved individuals who reported to ruminate more, also reported to attend to their feelings more, and clarify their emotions better, and reappraise their situations more. The indirect effects of rumination on attention to feelings, repair of mood, social constraints and rumination were non-significant.

Before continuing with the bereavement related variables, final variable to test the indirect effects was social constraints. However, social constraints had no significant indirect effects on endogenous variables of the study. The only significant indirect effect of social constraints was on biopsychosocial functioning (.03). This indirect effect was observed through reappraisal. That is, bereaved individuals who perceived higher levels of social constraints, also reported lower levels of reappraisal, and finally higher levels of dysfunctioning. To sum up, higher levels of social constraints were indirectly related with higher levels of dysfunctioning.

Conflictual relationship with the deceased had significant indirect effects on relational active grieving (.11), and biopsychosocial functioning (.18), as well as attention to feelings (.06), clarity of feelings (-.10), repair of mood (-.13), social constraints (.09), and reappraisal (-.06). The indirect effects on relational active grieving and biopsychosocial functioning were
observed through three main pathways; (a) rumination, (b) rumination and social constraints, and (c) social constraints. That is, bereaved individuals who reported conflictual relationship with the deceased, also reported higher levels of rumination and social constraints, and higher levels of relational active grieving and biopsychosocial functioning. Moreover, the indirect effects on attention to feelings, clarity of feelings, repair of mood, social constraints, and reappraisal were observed through rumination. That is, bereaved individuals who reported conflictual relationship with the deceased also reported to have higher levels of rumination, and paying more attention to their feelings, being less able to clarify their emotions, being less able to repair their mood, perceiving more constraints, and reappraising their situation less. And finally, close and positive relationship with the deceased had no significant indirect effects on study variables.

4.3.2.4 Squared Multiple Correlations ($R^2$) for the Hypothesized Structural Model

In the hypothesized model, 62% of the variance in relational active grieving was explained by rumination, social constraints, close and positive relationship with the deceased, and conflictual relationship with the deceased. Moreover, 58% of the variance in biopsychosocial functioning was explained by repair of mood, rumination, reappraisal, social constraints, close and positive relationship with the deceased, and conflictual relationship with the deceased. Also, attention to feelings, clarity of feelings, and rumination accounted for 38% of the variance in repair of mood. Similarly, attention to feelings and rumination explained 30% of the variance in clarity of feelings. A small (2%) variance in attention to feelings was explained by rumination, and 12% of the variance in rumination was explained by reappraisal, suppression, and conflictual relationship with the deceased. Furthermore, rumination and conflictual relationship with the deceased accounted for 23% of the variance in social constraints. Finally, clarity of feelings and social constraints accounted for 8% of the variance in reappraisal, while attention to feelings explained 16% of the variances in suppression. All squared multiple correlations were summarized in Table 11.
Table 11

Squared Multiple Correlations for the Hypothesized Structural Model

<table>
<thead>
<tr>
<th></th>
<th>Relational Active Grieving</th>
<th>Functioning</th>
<th>Repair of Mood</th>
<th>Clarity of Feelings</th>
<th>Attention to Feelings</th>
<th>Social Constraints</th>
<th>Suppression</th>
<th>Reappraisal</th>
<th>Rumination</th>
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</thead>
<tbody>
<tr>
<td>$R^2$</td>
<td>.62</td>
<td>.58</td>
<td>.38</td>
<td>.30</td>
<td>.02</td>
<td>.23</td>
<td>.16</td>
<td>.08</td>
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4.4 Summary of the Results

The purpose of the study was to understand the nature of the relationships among meta-mood experiences, ruminative responses, emotion regulation strategies, social constraints and grief related experiences. Almost all of the relationships resulted in the expected way. Traumatic perception of death was eliminated from the study because of the high multicollinearity values, thus close and positive relationship with the deceased and conflictual relationship with the deceased were the grief related endogenous variables, while relational active grieving and biopsychosocial functioning were the exogenous variable of the study.

Before the model testing, a series of descriptive analyses were conducted to understand the influence of demographic variables on the exogenous variables. More specifically, the effect of gender of the participant, gender of the deceased, death condition (i.e., natural anticipated, natural sudden, and violent), time elapsed since the death, and religious beliefs were tested for relational active grieving and biopsychosocial functioning. Results showed significant effect of gender of the participant on relational active grieving, that females had higher scores on relational active grieving than males. Then, the effect of gender, time since the death and the interaction of gender and time were tested for relational active grieving and biopsychosocial functioning. The interaction was not a significant predictor of neither relational active grieving nor biopsychosocial functioning. However, both the main effect of gender and time were significant. When explored separately, only gender differences found to be significant for relational active grieving. Nevertheless, the sample size difference for
females and males was large (i.e., 70.1% and 29.9%, respectively), thus gender was not included into the model as a control variable for further investigations.

Moreover, another series of descriptive analyses were conducted to understand the influence of demographic variables on the endogenous variables. More specifically, the effect of gender, time since the death and the interaction of gender and time were tested for attention to feelings, clarity of feelings, repair of mood, reappraisal, suppression, rumination, and social constraints. There were no significant interaction effects and no significant main effect for time. Results only revealed significant gender differences for attention to feelings, rumination and suppression. That is, females reported higher levels of attention to their feelings and rumination than males, while males reported higher levels of suppression than females.

Multicollinearity issues were observed between relational active grieving and traumatic perception of loss in the measurement model. Thus, the model was tested after eliminating the traumatic perception of loss variable. The results of the model test showed that;

1. Close and positive relationship with the deceased, conflictual relationship with the deceased, repair of mood, rumination and social constraints were the significant predictors of relational active grief, considering the direct effects. That is, bereaved individuals who had lower abilities in repairing their mood, higher levels of ruminative responses, and higher perceptions of social constraints had higher scores on relational active grieving.

2. Similarly, close and positive relationship with the deceased, conflictual relationship with the deceased, repair of mood, reappraisal, rumination and social constraints were the significant predictors of biopsychosocial functioning, in terms of the direct effects. That is, bereaved individuals who had lower abilities in repairing their mood, lower levels of reappraising the situation, higher levels of ruminative responses, and higher perceptions of social constraints had also higher scores on biopsychosocial functioning.

3. Both close and positive relationship with the deceased and conflictual relationship with the deceased predicted relational active grieving and biopsychosocial functioning in a positive direction.
4. Close and positive relationship with the deceased predicted suppression, while had no significant relationship with reappraisal, contrary to the expected. It was predicted that having a close and positive relationship with the deceased would be correlated with lower levels of suppression and higher levels of reappraisal, however the relationship with suppression was in the opposite direction with the expected.

5. Conflictual relationship with the deceased had significant direct effects on social constraints and rumination as expected. However, the direct effect of conflictual relationship with the deceased on suppression was not significant, contrary to expected. That can be explained in a way that when the bereaved individuals had conflictual relationship, they did not suppress their emotions but ruminated more, and that increased both their relational active grieving and biopsychosocial functioning levels.

6. Rumination had a mediator role on the relationship between suppression and the exogenous variables.

7. Reappraisal had a significant negative direct effect on biopsychosocial functioning, while had no significant direct effect on relational active grieving. Also, suppression had no direct effects on the exogenous variables.

8. Repair of mood was a significant predictor for both of the exogenous variables, and also had a mediator role on the relationships between attention to feelings and exogenous variables, and clarity of feelings and exogenous variables.

9. Social constraints had mediator roles for the relationships between rumination and exogenous variables, and conflictual relationship with the deceased and the exogenous variables, in addition to its direct effects on both relational active grieving and biopsychosocial functioning.

These results were discussed in the light of the related literature and the hypothesis of the current study in the following chapter. Also, for visual ease, structural model with only significant paths were presented below (Figure 11), with the standardized estimates.
Figure 11. Standardized estimates for the structural model with significant paths.
CHAPTER 5

DISCUSSION

This final chapter included the discussion of the results under three main sections. In the first section, results were discussed and evaluated in the light of the findings and related literature, following the hypothesis of the current study. More specifically, the first section covered the results of the descriptive analyses and the hypothesized model. The second section contained implications of the results for research and practice. And finally, the third section comprised of recommendations for the further studies and the limitations of the current study.

5.1 Discussion of the Findings

Grief responses of the individuals is a popular research area since loss is a universal experience. Individuals may grieve for the loss of their loved ones, animals, identities, and even in case of the threat of loss such as an accident or a serious illness. Loss is a universal experience, however, responses to the loss may differ across the cultures and individuals. These differences may be rooted from the circumstances of the loss (i.e., sudden loss of a loved one, expected loss of a loved one, threat of loss, etc.) or may be related to personal characteristics (i.e., meta-mood experiences, emotion regulation strategies, and ruminative responses) and interpersonal processes (i.e., social constraints and relationship to the deceased). In order to understand the grief process after the loss of a loved one, the current study focused on the relationships among personal characteristics and interpersonal processes, which were subjects of different lines of research. The current study aimed to combine the different lines of research together and develop the conclusions of the Two-Track Model of Bereavement by examining the emotional, cognitive and social backgrounds of bereaved individuals and the influences of these background traits on the process of adaptation to the loss of a loved one.
With this purpose, a model was built to explore the relationships among meta-mood experiences, ruminative responses, emotion regulation strategies, social constraints and grief related experiences. Before testing the hypothesized model, a series of ANOVAs were conducted to examine the effects of demographic variables (i.e., gender of the participant, gender of the deceased, death condition, time elapsed since the death, and religious beliefs of the participants) on the exogenous variables (i.e., relational active grieving and biopsychosocial functioning) of the study. Results showed significant gender differences in relational active grieving, that females were more actively grieving than males. That is, females reported to have more intense relationships with the deceased individuals. According to Rubin et al. (2009), having intense contact with the deceased is frequently evaluated as dysfunctionality but also may be an indicator of normal grieving process. This finding was parallel to most of the study findings that females have more difficulties in the grieving processes than males (Currier, Holland, & Neimeyer, 2006; Pressman & Bonanno, 2007; Rubin et al., 2009; Schwab, 1996; van der Houwen, Stroebe, Schut, Stroebe, & van den Bout, 2010). However, sample sizes for the females and males were not equal. Thus, the results may be influenced by the group differences. Moreover, because of the unequal sample sizes, this variable was not included in the analyses for further investigations. Nevertheless, as it can also be understood from the studies summarized in Chapter 2, unequal samples of females and males are common in the related literature. Finally, in terms of the ANOVA results for biopsychosocial functioning, none of the demographic variables had significant effects.

Continuing with the non-significant results, gender of the deceased, death condition, religious beliefs of the participants and time elapsed since the death had no significant effects on both relational active grieving variable and biopsychosocial functioning. These relations are commonly tested factors in the related literature, but results show different relationships among them. For instance, Bar-Nadav and Rubin (2015) and Rubin et al. (2009) indicated that time elapsed since the death has a significant negative effect on relational active grieving, showing recent losses causing more problematic grief processes. On the other hand, Nakao, Kashiwagi, and Yano (2005) and Schwab (1996) found that time had no significant effect on the grief scores. Accordingly, studies exploring the effect of religious beliefs reports contradicting findings. For example, Sanders (1988) found that religious beliefs may trigger stigmas in cases of traumatic deaths, and those stigmas may result in dysfunctioning of the
bereaved individuals. On the other hand, McGloshen and O’Bryant (1988) found that religious beliefs and participation in religious activities may prompt positive emotions that help bereaved individuals have better functioning. Moreover, death condition was found to be a significant predictor of grief scores indicating that traumatic/ sudden deaths predicting higher scores of difficulties (Currier, Holland, & Neimeyer, 2006; Lichtenthal, Neimeyer, Currier, Roberts, & Jordan, 2013; Rubin et al., 2009; Sanders, 1988). For the current study, death condition was evaluated under three main categories; (a) natural anticipated, (b) natural sudden, and (c) violent but the influence of death condition on relational active grieving and biopsychosocial functioning were non-significant. However, sample sizes for these three groups were not equal. Thus, the results may be influenced by the group differences. Moreover, because of the unequal sample sizes, this variable also was not included in the analyses for further investigations.

Following the descriptive analyses, a measurement model test was conducted prior to the structural model testing. Results of the measurement model showed high multicollinearity values between relational active grieving and traumatic perception of loss variables. According to TTMoB (Rubin et al., 2009; Stroebe & Schut, 1999), Track I (i.e., including biopsychosocial functioning and traumatic perception of loss factors) focuses on the negative consequences of the traumatic perception of loss and the dysfunctioning of the bereaved individuals. And Track II (i.e., including close and positive relationship with the deceased, conflictual relationship with the deceased, and relational active grieving) focuses on the relational aspect of the grief experience and explores the negative impact of the loss on the relationship with the deceased (Rubin et al., 2009; Stroebe & Schut, 1999). More specifically, relational active grieving factor measures the maladaptive continuing bond with the deceased. Moreover, Rubin, Malkinson, and Witztum (2011) suggested that Track I and Track II has a reciprocal relationship, however practitioners and researchers may choose to focus on one of the tracks only, one of the factors, or total scores of TTBQ. Depending on this suggestion and since the measurement model revealed multicollinearity problems, traumatic perception of loss variable was eliminated from the study. Thus, the hypothesized structural model consisted of attention to feelings, clarity of feelings, repair of mood, reappraisal, suppression, rumination, social constraints, close and positive relationships with the deceased, and conflictual relationships with the deceased variables as the endogenous variables, and
relational active grieving and biopsychosocial functioning variables as the exogenous variables. Results of the model test revealed adequate fit, but the model had also non-significant paths.

Results of the tested model showed that individuals who reported higher levels of emotional intelligence (i.e., use of meta-mood processes), also reported more use of reappraisal and less use of suppression, lower levels of ruminative responses, and lower levels of perceived social constraints, and lower levels of relational active grieving and biopsychosocial functioning. That is, bereaved individuals who were emotionally intelligent, regulate their emotions, use lower levels of ruminative responses and perceive less constraints from their social network also reported to have adaptive influence of the continuing bonds with the deceased and better functioning in daily life tasks. On the other hand, when the bereaved individuals reported to attend their emotions more, they also reported to suppress their emotions more, ruminate more and perceive more social constraints, and report to have maladaptive influence of the continuing bonds with the deceased and dysfunctionality in daily life tasks. It can be concluded that, current study showed support to previous study findings indicating that repair of mood and emotion regulation were adaptive coping strategies in stressful life events and rumination and social constraints were maladaptive components in coping with stressful life events.

Moreover, the findings of the current study revealed that social, emotional and cognitive backgrounds of the individuals have important roles on their grief processes. Thus, the current study combined different lines of research together, expanded the explorations of the Two-Track Model of Bereavement and thus, provided a broader explanation to the grief adjustment process.

Results of the tested model was also evaluated profoundly in direction of the specific research questions that were given in Chapter 1. In order to understand the relationships among the study variables and their unique influences on the grief related variables, the following sections included detailed discussions of the findings. First, the direct relations were discussed, then the indirect relations were presented since the majority of the indirect relations followed common pathways. In general, close and positive relationship with the deceased,
conflictual relationship with the deceased, repair of mood, rumination and social constraints were the significant direct predictors of relational active grief. In addition to these significant predictors, biopsychosocial functioning was significantly predicted by reappraisal. In Figure 11 above, structural model with only significant paths were presented with the standardized estimates.

5.1.1 Discussion of the Direct Effects

Starting with the relationship between meta-mood processes and grief, only direct effects of repair of mood on relational active grieving and biopsychosocial functioning were hypothesized (Hypothesis 1.3). Moreover, attention to feelings was expected to be positively correlated with reappraisal and negatively correlated with suppression (Hypothesis 1.1). Continuing with the meta-mood processes, a positive correlation was hypothesized between clarity of feelings and reappraisal (Hypothesis 1.2). Results showed full support for H1.2 and H1.3, and partial support for H1.1. As seen from Figure 12 below, all of the meta-mood variables had significant indirect effects on relational active grieving and biopsychosocial functioning. In the figure, only significant paths were presented for visual ease, and the direct effects were presented with lines while the indirect effects were presented with dashes.

Attention to feelings was negatively correlated with suppression but the relationship between attention to feelings and reappraisal was not significant. That is, bereaved individuals who paid attention to their feelings, also reported to suppress their emotions less. Contrary to expected, attention to the feelings was not related to reappraising the situation for bereaved individuals. However, clarity of feelings was positively associated with reappraisal, indicating that when the bereaved individuals were able to clarify their feelings, they were also able to reappraise the situation. Showing that in order to reappraise the situation, only attending to the feelings did not provide enough information, but the bereaved individuals also needed to clarify their feelings.
The relationships among meta-mood processes and emotion regulation strategies were explored by only Gross and John (2003), and they found that reappraisal was positively correlated with repair of mood, and suppression was negatively correlated with all three meta-mood factors (i.e., attention to feelings, clarity of feelings and repair of mood). Current study results showed similarities, since bivariate correlations were negative for suppression and the three meta-mood factors. The bivariate correlations showed that suppression was significantly correlated with attention to feelings and clarity of feelings. However, the negative relationship between repair of mood and suppression was not significant. Moreover, the model revealed a significant negative relationship between attention to feelings and suppression. The relationships among reappraisal and meta-mood processes tested in the current model were different from Gross and John’s (2003) study. The bivariate correlations of the current study supported the previous study findings, indicating positive correlation between repair of mood and reappraisal, however this path was not tested in the model. Depending on the structure of meta-mood, repair of mood was similar to emotion regulation, thus the relationship of this variable was not tested with emotion regulation variables.

Figure 12. Direct and indirect relations of meta-mood variables and exogenous variables.
In terms of the relationship between repair of mood and the exogenous variables of the study, negative relationships were hypothesized (H1.3) which were fully supported by the results. A small but negative relationship was found between repair of mood and relational active grieving, and a medium and negative relationship was found between repair of mood and biopsychosocial functioning. In other words, bereaved individuals who were able to repair their bad moods into better ones, also reported lower levels of relational active grieving. Also, bereaved individuals who were able to repair their bad mood also showed lower levels of dysfunctioning. That is, repair of mood was a significant coping strategy in terms of the maladaptive influence of the continuing bonds with the deceased and the dysfunctioning in daily life tasks.

Next hypotheses (H2.1 and H2.2) were about the relationships among the emotion regulation strategies and exogenous variables, and rumination. Both of the hypotheses were partially supported, as seen from Figure 13. In the figure, only significant paths were presented for visual ease, and the direct effects were presented with lines while the indirect effects were presented with dashes.

*Figure 13. Direct and indirect relations of emotion regulation variables and exogenous variables.*
Suppression had significant direct relationships with rumination, and, only the direct relationship between reappraisal and biopsychosocial functioning was significant in terms of the exogenous variables. The relationship between reappraisal and biopsychosocial functioning was significant and negative, indicating that reappraising the situation helped bereaved individuals cope with difficulties in functioning in daily life tasks. Considering the suppression variable, direct relationships with relational active grieving and biopsychosocial functioning were hypothesized but found to be non-significant.

Studies in the related literature showed similar findings that regulating their emotions help individuals stimulate positive feelings that improve physical, emotional, and mental functioning (Bonanno & Kaltman, 1999; O'Connor, Allen, & Kaszniak, 2002; Znoj & Keller, 2002). In the current study, parallel to these findings, rumination was negatively correlated with reappraisal while was positively correlated with suppression. The negative correlation between reappraisal and rumination was not significant in the model, but the bivariate relationships were negative and significant. That is, lower levels of reappraisal and higher levels of suppression was associated with higher use of ruminative responses which was maladaptive for relational active grieving and functioning.

The third hypothesis (H3.1) was fully supported, which was suggesting positive correlations of rumination with relational active grieving, biopsychosocial functioning, attention to feelings, and social constraints but negative correlations with clarity of feelings and repair of mood. As seen from Figure 14 below, all the tested pathways were significant and in the expected direction. In the figure, the direct effects were presented with lines while the indirect effects were presented with dashes.
Figure 14. Direct and indirect relations of rumination and exogenous variables.

Bereaved individuals with higher levels of ruminative responses reported higher levels of maladaptive continuing bonds and maladaptive functioning. It is known that rumination is the process of having excessive focus on feelings and personal concerns instead of finding solutions for the problems (Nolen-Hoeksema, 1998) that leads to longer recovery from depression (Nolen-Hoeksema, 1987). Thus, it is simply a maladaptive trait, and higher levels of ruminative response are expected to have strong associations with maladaptive adjustment to the loss of a loved one. Similar to previous study findings (Boelen, van den Bout, & van den Hout, 2003; Delespauw & Zech, 2015; Michael & Snyder, 2005; Stroebe et al., 2007; van der Houwen, Stroebe, Schut, & van den Bout, 2010) rumination was a maladaptive coping mechanism for the current study.

Moreover, ruminative responses had positive associations with social constraints and attention to feelings, suggesting that when individuals had higher use of ruminative responses, they also reported to perceive more social constraints, and paying more attention to their feelings. Studies (Nolen-Hoeksema, Parker, & Larson, 1994; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; van der Houwen, Stroebe, Schut, & van den Bout, 2010) also
showed similar findings that rumination played a maladaptive role in coping with the loss and is related to poor social relationships. Bereaved individuals are more likely to use ruminative responses when they perceive constraints and cannot find affirmation from their social network, and consequently they experience difficulties with adjustment to the loss.

Fourth hypothesis of the study (H4.1) was suggesting positive correlations of social constraints with suppression, relational active grieving and biopsychosocial functioning, but negative correlation with reappraisal. As seen from Figure 15, H4.1 was partially supported. In the figure, only significant paths were presented for visual ease, and the direct effects were presented with lines while the indirect effects were presented with dashes.

![Diagram](image)

Figure 15. Direct and indirect relations of social constraints and exogenous variables.

The positive direct effect of social constraints on both relational active grieving and biopsychosocial functioning revealed that being deprived of the approval of the social network had a maladaptive role on the grief process. When the perception of social constraints increased, bereaved individuals had also more difficulties with continuing bond with the
deceased and daily functioning. Moreover, as hypothesized, a negative direct effect of social constraints was found on reappraisal, indicating without the support of others, bereaved individuals also had difficulties in reappraising their situation.

Another positive direct effect of social constraints was tested on suppression. With lower levels of support of others, bereaved individuals were hypothesized to suppress their emotions more, parallel with the findings of Witlink et al. (2011) who reported lower scores of suppression for the participants who had a partner and support of their partner. However, this relationship was not significant in the model testing, while it was significant and positive for the bivariate correlations.

These findings were also parallel to the previous study findings showing the social difficulties and constraints that bereaved individuals experience when they express their feelings (Bonanno & Kaltman, 2001), have intrusive thoughts and feelings about the deceased (Lepore, Silver, Wortman, & Wayment, 1996), and experience emotional instability (Vachon & Stylianos, 1988). These studies also report that with higher levels of perceived social constraints, bereaved individuals have difficulties in adjustment to the loss.

Finally, in terms of grief related variables, close and positive relationship with the deceased, conflictual relationship with the deceased and traumatic perception of death were hypothesized to have direct effects on the exogenous variables (H5.1, H5.2 and H5.3). The traumatic perception of death variable was eliminated from the study because of the high multicollinearity values, thus H5.3 was not tested. The relations of relationship related variables and exogenous variables were presented in Figure 16. In the figure, only significant paths were presented for visual ease, and the direct effects were presented with lines while the indirect effects were presented with dashes.

In H5.1, positive direct effects of close and positive relationship with the deceased were expected on relational active grieving, biopsychosocial functioning and reappraisal, and a negative direct effect was expected on suppression. Results showed partial support for H5.1 since no significant relation was observed between close and positive relationship with the deceased and reappraisal. Moreover, contrary to expected, a small but positive relation
between close and positive relationship with the deceased and suppression was observed. The direct effects of close and positive relationship with the deceased on the exogenous variables were positive, as expected. And in H5.2, positive direct effects of conflictual relationship with the deceased were expected on relational active grieving, biopsychosocial functioning, suppression, rumination, and social constraints. The results also partially supported H5.2, since the relationship between conflictual relationships with the deceased and suppression was not significant.

Figure 16. Direct and indirect relations of relationship with the deceased and exogenous variables.

The results for the relationships among emotion regulation variables and the relationship with the deceased variables were surprising, since having a close relationship was expected to be associated with higher levels of reappraisal and lower levels of suppression. However, the results may be interpreted as the bereaved individuals suppress their emotions in order to handle with the emotional burden of losing a close loved one. Moreover, when the bereaved individuals defined their previous relationship with the deceased as conflictual, they also
reported higher levels of social constraints and rumination. That is, problems in the relationship were associated with lower levels of support from others, and so leading the bereaved ones to ruminate more.

Furthermore, having rather a close relationship or conflictual relationship did not result in different results for functioning or perception of the continuing bond. These findings bring out questions such as; “does the quality of the relationship matter?” or “do we always remember the lost ones in favorable terms and memories whatever we experience with them?”. Related with the favorable memories of the lost ones, Rubin (1999b) reported that parents who did not experience the loss of their children (i.e., parents whose children are alive), perceive their children less favorable than the parents who experienced the loss of their children. The effect of conflictual relationship was smaller than the effect of close and positive relationship with the deceased, but they were both risk factors for maladaptive perception of the continuing bonds and maladaptive functioning of the bereaved.

5.1.2 Discussion of the Indirect Effects

As seen from the Figures 12, 13, 14, 15 and 16, there were significant indirect relationships among the variables, as well as the direct relations. Because of the nature of the relationships among emotions, cognitions, and behaviors, the current study findings showed complicated relations among the variables. In this section, indirect relations were discussed focusing on the indirect effects on the exogenous variables. As meta-mood variables, rumination, emotion regulation variables, and social constraints were significantly correlated to each other, and had significant direct and indirect effects on each other, their relations were discussed together. And the indirect effect of relationship with the deceased variables (close and positive relationship with the deceased and conflictual relationship with the deceased) on exogenous variables were also discussed through the endogenous variables. When Figure 16 was examined, it was seen that close and positive relationship with the deceased had significant indirect effects on relational active grieving and biopsychosocial functioning through suppression. And, conflictual relationship with the deceased had significant indirect effects on relational active grieving and biopsychosocial functioning through social constraints and rumination. Thus, the discussion of the relationships among social constraints, rumination,
emotion regulation strategies and meta-mood variables also provided detailed information for the indirect effects of the relationship related variables.

Relational active grieving scores of the bereaved individuals were indirectly effected by attention to feelings, clarity of feelings, suppression, rumination, and conflictual relationships with the deceased. For biopsychosocial functioning, social constraints had an indirect effect in addition to the variables that have indirect effects on relational active grieving.

As seen from Figures 12 (pp. 154), attention to feelings had a small negative indirect effect on relational active grieving through several pathways, mainly using clarity of feelings, rumination, social constraints, and repair of mood. For emotion regulation strategies, suppression had significant indirect effects on both of the exogenous variables while the indirect effects of reappraisal were non-significant for both. Figure 13 above visualized the indirect effects of suppression on the exogenous variables. The indirect effects of suppression were observed through several pathways, all of which included rumination. Moreover, the indirect effects of rumination on relational active grieving and biopsychosocial functioning were observed through several pathways mainly using social constraints, and meta-mood factors (Figure 14). And finally, social constraints had a significant indirect effect on biopsychosocial functioning, but the indirect effect on relational active grieving was non-significant. As seen in Figure 15, the indirect effect of social constraints followed a pathway using reappraisal.

Bereaved individuals who reported to pay attention to their feelings, also reported higher levels of clarity of feelings and repair of mood, which was correlated with lower levels of relational active grieving and biopsychosocial functioning. That is, with attending to the emotions, bereaved individuals were able to clarify their feelings and repair their mood in need, thus providing a coping mechanism against the maladaptive influence of the continuing bonds with the deceased and the dysfunctioning in daily life tasks. Moreover, bereaved individuals who were able to clarify their feelings, were also able to reappraise their situation that helped them for better functioning. Also, it was found that bereaved individuals who suppressed their emotions, used higher levels of ruminative responses and had higher levels of relational active grieving and biopsychosocial functioning. Or, bereaved individuals with higher suppression of their emotions, ruminated more, perceived more constraints from their
social network, and had higher levels of maladaptive influence of the continuing bonds with the deceased and biopsychosocial dysfunctioning. When considered about the indirect effects of rumination, higher levels of this variable was associated with higher perception of social constraints, and higher scores on relational active grieving and biopsychosocial functioning. Besides, participants who reported to ruminate more, also reported to attend to their emotions more and both reported to have difficulties with clarifying their emotions and repairing their mood. Likewise, for the bereaved individuals, higher levels of social constraints were associated with lower levels of reappraisal, higher use of ruminative responses, and finally higher levels of dysfunctioning.

To sum up, higher levels of social constraints were indirectly related with higher levels of dysfunctioning. These indirect relationships were mostly equivalent with the previous study findings. For instance, attention to feelings was found to have positive correlations with clarity of feelings and repair of mood in previous studies (Ghorbani, Bing, Watson, Davison, & Mack, 2003; Palmer, Gignac, Bates, & Stough, 2003; Salovey, Stroud, Woolery, & Epel, 2002) and in the current study. However, when considered the relationships between meta-mood variables and other variables, the results were not consistent with the previous findings. Attention to feelings was positively related with depression (Extremera & Fernandez-Berrocal, 2005; Fernandez-Berrocal, Extremera, & Ramos, 2004; Salguero, Extremera, & Fernandez-Berrocal, 2013), distress (Fernandez-Berrocal & Extremera, 2008) and death anxiety (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2013; Espinoza V. & Sanhueza A., 2012). On the other hand, attention to feelings had associations with higher levels of empathy and emotion-oriented coping (Fitness & Curtis, 2005), satisfaction with life (Bugay, Aksoz, & Erdur-Baker, 2014; Fernandez-Berrocal, Extremera, & Ramos, 2004; Thompson, Waltz, Croyle, & Pepper, 2007), and lower levels of stress (Salovey, Stroud, Woolery, & Epel, 2002). Thus, depending on these findings, it can be suggested that higher levels of attention results in higher stress and lower reappraisal of the loss, thus leading to maladaptive perception of continuing bonds with the deceased and dysfunctioning. However, when the bereaved individuals have the ability to repair their mood in case of need, they may reduce the stress and reappraise the loss, thus perceive the continuing bond with the deceased in an adaptive way and have better functioning. The emotional, cognitive and social variables mediating the relation between meta-mood variables and endogenous variables may be influencing the different directions of
the relations. For instance, the indirect effect of attention to feelings on reappraisal through clarity of feelings was an example of the change in the direction of the effect.

Moreover, in the current study, rumination had a significant relationship with suppression, similar to the findings of Arditte and Joormann (2011) and Moore, Zoeliner, and Mollenholt (2008). Additionally, higher levels of rumination were associated with difficulties in clarifying the emotions and repairing the bad mood for the current study. This finding was similar to previous findings showing negative associations between repair of mood and rumination (Bugay, Aksoz, & Erdur-Baker, 2014; Fernandez-Berrocal, Extremera, & Ramos, 2004; Salguero, Extremera, & Fernandez-Berrocal, 2013; Salovey, Stroud, Woolery, & Epel, 2002).

Also, Lepore and Ituarte (1999) found that the impacts of social constraints on optimism, negative and positive affect were more powerful than the impacts of social support. In the current study, social support was not tested in the model, however, the direct effect of social constraints on reappraisal and indirect effects on rumination, relational active grieving and biopsychosocial functioning could be interpreted in the same direction with the previous findings. Social constraints were associated with bereaved individuals’ reappraising their situation less, ruminating more and clarifying and repairing their emotions less, which finally were associated with dysfunctioning and harder adjustment to the loss of a loved one.

5.2 Implications for Research and Practice

As it is known that loss of a loved one is a common experience, the current study has several implications for counseling field and bereavement research. To start with, the participants of the study were adults whose age ranged between 18 and 70, with different educational backgrounds and employment statuses. Thus, all counselors working with adult individuals may make use of the results of the current study. Also, the death condition showed a large range, which was categorized as natural anticipated, natural sudden and violent. The variations in the death condition also provide benefits for counselors.

The findings revealed that along with the quality of the relationships with the deceased, meta-mood variables, emotion regulation strategies, ruminative responses and social constraints
explained the 62% variance in relational active grieving, and 58% variance in biopsychosocial functioning. That is, the influence of social support, emotions and emotional intelligence on the grief adjustment process is recognizable. Also, the current study combined different lines of research together and expanded the understandings of the Two-Track Model of Bereavement, and provided support to the hypothesized model. The findings showed that individuals’ social, emotional and cognitive backgrounds influence their functioning in stressful life events, such as the loss of a loved one. Counselors working with bereaved individuals should focus on social support mechanisms, emotional expressions, and emotion regulation strategies to discover the possible risk factors and resources of the client. Trainings and detailed information on the importance of emotions, emotional expressivity and emotion regulation should be planned accordingly.

Moreover, the reciprocal relations among emotions, cognitions, and behaviors are emphasized by counseling approaches rooted from the Cognitive Behavioral Therapy. According to this perspective, a change in behaviors, cognitions or feelings is only possible through working with these three dimensions together. The findings of the current study also showed that emotions, cognitions, and behaviors influence each other. Thus, counselors may benefit from the principles, techniques and practices of Cognitive Behavioral Therapy and Rational Emotive Behavior Therapy while constructing the intervention for the bereaved individuals.

The results revealed significant gender differences in terms of the relational dimension of the grief. That was an important finding for the counselors and researchers who are in the process of planning their therapy or research. It was known that females and males grieve in different ways, and the results showed females had higher levels of attention to feelings and rumination while males had higher levels of suppression. During the counseling sessions, males should be encouraged to express their feelings, and females should be guided through the emotion regulation and repair of mood processes. And for the researchers, trying to reach to a gender-balanced sample in order to make further comparisons for variables with significant gender differences can be suggested.

Another important finding of the current study revealed the influence of previous relationships with the deceased on the grief adjustment process. Both close and conflictual
relations resulted in maladaptive adjustment. In other words, having close and positive relationships was not found to be associated with better adjustment and having conflictual relationships was not found to be associated with difficulties in adjustment process. Whether the relationship was perceived as close or conflictual, individuals experience difficulties after the loss of their loved ones. Thus, it is important to focus on the relationships with the deceased for the counseling. While having close or conflictual relationships were not directly associated with the adjustment process, they had different associations with emotional and cognitive strategies and social constraints. Ruminative responses increased in conflictual relations, which could be an indicator of unfinished businesses with the deceased. Also, close and positive relations were associated with suppression and rumination. Counselors should carefully cover the relationship issues and it may be useful to discuss about the adaptive and maladaptive influence of the continuing bonds.

The results also showed the importance of social constraints on the grief adjustment process. It was found that lack of social support had negative effects on grief adjustment. With the determination of resources and risk factors, support groups for the bereaved individuals should be organized by the counselors. Therefore, bereaved individuals would be able to express their feelings and thoughts in a safe, caring and understanding atmosphere. So, their need for sharing their experience including their thoughts and emotions, being listened and approved would be satisfied.

Finally, in the light of the findings of the current study, it is possible to make suggestions for counseling education programs in colleges. The experience of loss and grief is a common experience that individuals may have during every stage of their life-span. Loss of a loved one may cause to corruption of the daily routine and disturbances in the needs of safety and love, thus may create feelings and thoughts of uncontrollability. Therefore, like in any negative life events, after the experience of loss, individuals show affective, cognitive, behavioral and somatic reactions. Most of the grieving individuals adjust to the loss without having pathological/complicated grief experience. However, some personal or death related characteristics (i.e., death condition) may cause difficulties in adaptation process. Thus, counselors’ having detailed information about negative life events, including grief and loss experiences, would have an essential role in understanding of the process and provide
necessary support to prevent grief reactions to reach to a complicated level. Counselors should be trained about reactions of individuals facing with negative life events, assessing possible resources and risk factors for those individuals, supporting grieving individuals to have an adaptive process, and referral options in need through courses or seminars added to counseling education programs.

5.3 Recommendations for Further Studies

Current study had some limitations and recommendations for further studies, as well as the significance and important implications. For instance, some important variables on grief adjustment process (i.e., gender, time elapsed since the death, and the death condition) did not have balanced groups, thus the comparisons between groups and controlling the effects of these variables were not possible. Thus, further studies should reach to a balanced sample and control the effects of gender, time and death condition on grief adjustment with multigroup invariance testing.

Moreover, the effect of time was tested by a cross-sectional study. However, a longitudinal study would have more power to determine the time effect. Since it is known that emotions, cognitions, and the perception of the support of the social network may show differences with time, it is necessary to use a longitudinal design. Thus, it would be possible to mention the change in the emotions, cognitions and grief reactions with time.

Furthermore, it was mentioned that the amount of bereavement studies in Turkey is not sufficient. However, death and loss is a common experience in a geography which frequently experiences natural disasters, epidemic diseases, and terror. Further studies should build a culture specific model of bereavement by deeper explorations of the current study variables and investigating these variables’ relationships with culture specific variables (i.e., funeral customs, death rituals, cultural norms for emotional expressions, etc.). Thus, a broader perspective would be provided by exploring the grief process in Turkish culture, adaptive and maladaptive influences of the cultural characteristics and differences and similarities with other cultures.
In the current study, several multiple mediations were observed. Because of the complex nature of the model, the majority of the variables had mediator roles in addition to their main effects. Further studies should focus on these mediations to get detailed information about the relationships among the variables.

Also, current study did not focus on some specific relations such as the relationship between repair of mood and suppression. The relations between attention to feelings and suppression, and clarity of feelings and reappraisal were significant. Further studies should explore the relations among all meta-mood variables (i.e., attention to feelings, clarity of feelings, and repair of mood) and emotion regulation variables (i.e., reappraisal and suppression) to have a better understanding of the emotional intelligence and emotion regulation processes.

Moreover, current study explored the influence of social constraints on the grief adjustment. Studies in the related literature revealed that perception of constraints had more powerful impact than the perception of support (Lepore, 1992, 2001; Lepore & Ituarte, 1999). Social constraints was tested in Turkish context with the current study for the first time. In order to have a deeper exploration and understanding of the social constraints concept, further studies should test the relation between social support and social constraints and their influence on adjustment to loss or negative life events.

Finally, Lane and Hobfoll (1992) found that the caregivers were feeling unsatisfied in terms of their own needs and burden of the negative emotions of the cancer patients, thus they were feeling upset and frustrated, and showing social constraints. Similarly, Pennebaker and Harber (1993) suggested that caregivers and listeners were withdrawing from their relationships with the bereaved individuals since they were feeling uncomfortable to hear about the overwhelming emotions and were desperate about how to respond to these emotions. In the current study, social constraints were explored only from the perspectives of the bereaved individuals. However, a comparison group of caregivers and significant others should be reached by the further studies. With this additional exploration, a deeper understanding of the social constraints mechanism will be possible in the course of time.
REFERENCES


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Appendix A

Approval Letter from Middle East Technical University Human Subjects Ethics Committee

12 Temmuz 2013

Onaylayan: Doç. Dr. Ürgür Erteb-Bakır
Eğitim Bilimleri Bölümü

Onaylayan: Prof. Dr. Cemal Özgen
IEMK Başkanı

Cevre


Bilgelikte/signupla e mânerini;

IEMK Komite Ovası
Uygulandı
12/07/2013

Prof. Dr. Cemal Özgen
Uygulama Política Araştırma Merkezi (UPAM) Başkanı
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Appendix B

Histograms, Normal P-P Plots and Partial Regression Plots
Appendix C

Turkish Summary

1. GİRİŞ


Duygu düzenleme, bireylerin hissettikleri duyguları anlamaya, duygularının farkına varma ve hissettikleri duyguları nasıl yaşayacaklarını ve nasıl ifade edeceklerini kontrol etme girişimleri olarak tanımlanmıştır (Gross, 1998). Bir kayıp yaşayan bireyin duygularını etkili bir biçimde düzenleyebilmesi sonucunda sosyal işlevselliğin, kimlik devamlılığının ve problem çözme kapasitelerinin geliştirilirigue görülmuştur. Ancak duygularını bastırdıkları zaman yaşa baş etme süreçlerinin uzadığı bulunmuştur (Bonanno, Papa ve O’Neill, 2002). Benzer bir biçimde, olumsuz duygudurumu ile başa çıkmak için kendine odaklanma olarak tanımlanan


daha fazla depresif belirti gösterdikleri görülmüştür (Lepore, Silver, Wortman ve Wayment, 1996).


Bu bulgular ışığında duygusal, bilişsel ve sosyal faktörlerin zorlu yaşam olaylarında bireylerin içsel ve kişilerarası süreçlerinde önemli rolleri olduğu söylenebilir. Aynı zamanda

1.1. Çalışmanın Amacı


1.2. Çalışmanın Önemi

Sevilen bir kişinin kaybı sıkıkla rastlanan bir yaşam olayıdır ve bireylerin yas tutmalarına neden olur. Yas tutan bireyler çoğu kez öfke, üzüntü, yalnızlık, suçluluk ve umutsuzluk gibi duygular yaşar (Stroebe, Hansson, Stroebe ve Schut, 2001). Ancak kayıp yaşayan tüm bireyler aynı duyguları deneyimlemez, bazıları diğerlerinden daha derin ve uzun bir yas süreci geçirebilir (Bonanno ve ark., 2002). Bu farklılıklar kayıbı yaşayan bireylerin sosyal destek ya da kısıtlanmışlık deneyimlerine ve kullandıkları duygusal düzenleme stratejilerine bağlı olarak
görülebilir. Bu nedenle bir kayıp sonrası yas tutan bireyler arasındaki farklılıkları anlamak için sosyal kısıtlanmışlık algularının ve bilişsel ve duygusal stratejilerin incelenmesi önemlidir.


Son olarak, bu çalışma Türk popülasyonunda sosyal kısıtlanmışlık, duygusal ve bilişsel süreçler ve yas süreçlerini inceleyen ilk çalışmadır. Ayrıca Sosyal Kısıtlanmışlık Ölçeği bu çalışmada Türkçeye çevrilerek adapte edilmiştir. Sosyal destek önemi bilinen ve birçok ölçek

2. YÖNTEM

2.1. Örneklem ve Veri Toplama İşlemi

Araştırmanın hedef evreni Türkiye’de son beş yıl içinde bir yakınını kaybeden yetişkinler olarak belirlenmiştir. Beş yıl limiti Rubin ve ark.’ın (2009) önerisi üzerine, bireylerin yas süreçlerinde köklü değişiklikler olmadan ulaşabilmek için konulmuştur. Çalışmaya katılım için belirlenen ölçütler (a) yetişkin olmak ve (b) son beş yıl içinde bir yakının kaybetmiş olmaktır. Ancak evrenin tamamına erişenin mümkün olmamasından dolayı, veriler tesadüfi olmayan örnekleme yöntemiyle toplanmıştır. Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulu’ndan alınan izin sonrasında yaklaşık iki hafta içinde veri toplama işlemi tamamlanmıştır. Araştırmacı çalışmada kullanılan ölçme araçlarını hem basılı hem de çevrimiçi (online) formlar halinde hazırlamıştır. Orta Doğu Teknik Üniversitesi’nin öğrencileri ve idari ve akademik personeli arasında volontarya olanlardan çalışma katılmalarını ve varsa başka tanıkları, çalışmaya katılmalarını için yönlendirmeleri istenmiştir. Çevrimiçi (online) formlar e-posta ve sosyal medya (Facebook, Twitter ve Ekşisözlük) duyuruları ile gönüllü katılımcılara ulaştırılmıştır.

Formların başında katılımcılara yaşadıkları kaybı düşünerek soruları yanıtlamaları hatırlatılmıştır. Son beş yıl içinde birden fazla kayıp yaşamaları durumunda ise kendileri için en etkileyici olan kaybı düşünmeleri istenmiştir.

Böylece, yaşları 18 ile 70 arasında değişen (yaş ortalaması = 32.40, SS = 10.72) 708 yetişkine (496 kadın ve 212 erkek) ulaşılmıştır. Katılımcıları 304’ü (%42.9) evli, 274’ü (%38.7) ise bekar olmuştur. Katılımcıların 283’ü (%40) dindar, 274’ü (%38.7) ise bekâr olduğunu belirtmiştir. Dini inançları sorulduğunda katılımcıların 283’ü (%40) kendilerini orta derecede dindar olarak tanımlarken, 135’i (%19.1) dindar, 129’u (%18.2) dindar değil ve 119’u
(%16.8) hiç dindar değil olarak tanımlamıştır. Katılımcılardan yalnızca 54’ü (%7.6) yaşadıkları kayıpla ilgili profesyonel psikolojik destek aldığı belirtirken 647’si (%91.4) destek almadıklarını belirtmiştir.

Ölen kişiye ilişkin özelliklere bakıldığında, bu kişilerin yaşlarının 2 ile 101 arasında değiştiği (yaş ortalaması = 60.89, SS = 20.76) ve 295’inin (%41.7) kadın, 407’sinin (%57.5) erkek olduğu görülmektedir. Katılımcılar, yaşanan ölümlerin 353’unun (%49.9) doğal beklenen sebeplerden (kanser ve yaşlılık gibi) kaynaklanırken, 253’unun (%35.7) doğal beklenmeyen sebeplerden (kalp krizi gibi) ve 97’inin (%13.7) şiddet içeren sebeplerden (intihar ve trafik kazası gibi) kaynaklandığını belirtmiştir. Ölen kişi ile olan ilişkiyi/ yakınlığı bakıldığında zaman 204 (%28.8) katılımcı büyükanne-büyübaba kaybı yaşadığını belirtirken, 188’i (%26.6) anne-baba, 79’u (%11.2) anne-babanın kardeşleri, 46’sı (%6.5) arkadaş, 31’i (%4.4) kardeş, 22’si (%3.1) kuzen, 14’ü (%2) eş ve 2’si (%0.3) çocuk kaybı yaşadığını belirtmiştir. Son olarak ölümün üzerinden geçen zamana bakıldığında katılımcıların 243’ü (%34.3) bir yıldan kısa sürede, 144’ü (%20.3) son bir yıl içinde, 101’i (%14.3) son iki yıl içinde, 79’u (%11.2) son üç yıl içinde, 80’i (%11.3) son dört yıl içinde ve 19’u (%2.7) son beş yıl içinde kayıp yaşadığını belirtmiştir.

2.2. Veri Toplama Araçları

Çalışmada kullanılan veri toplama araçlarının geçerlik ve güvenirlik testlerini yapmak üzere tesadüfi olmayan örneklemeye yöntemiyle bir veri seti toplanmış ve pilot çalışma yapılmıştır. Pilot çalışmanın hedef evreni de Türkiye’de son beş yıl içinde bir yakınını kaybetmiş olan yetişkinler olarak belirlenmiştir. Çalışmaya katılım için belirlenen ölçütler (a) yetişkin olmak ve (b) son beş yıl içinde bir yakınını kaybetmiş olmaktır. Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulu’ndan alınan izin sonrasında yaklaşık iki hafta içinde veri toplama işlemi tamamlanmıştır. Orta Doğu Teknik Üniversitesi’nin öğrencileri ve idari ve akademik personeli arasından güvende olanlardan çalışmaya katılmaları ve varsa başka tanındaki, çalışmaya katılmaları için yonelendiriciyi istenmiştir. Formların başında katılımcılara yaşadıkları kayya düşünen soruları yantlamaları hatırlatılmıştır. Son beş yıl içinde birden fazla kayıp yaşamaları durumunda ise kendileri için en etkileyici olan kayıbı düşünmeleri istenmiştir.
Böylece, yaşları 18 ile 81 arasında değişen (yaş ortalaması = 35.21, SS = 14.58) 323 yetişkine (222 kadın ve 101 erkek) ulaşılmıştır. Katılımcıların 126’sı (%39) üniversite mezunu, 106’sı (%33.4) ise lise mezunu olduklarını belirtmiştir. Dini inançları sorulduğunda katılımcıların 158’i (%48.9) kendilerini orta derecede dindar olarak tanımlarken, 69’u (%21.4) dindar, 48’i (%14.9) dindar değil ve 30’u (%9.3) hiç dindar değil olarak tanımlamıştır. Katılımcılardan yalnızca 18’i (%5.6) yaşadıkları kayıpla ilgili profesyonel psikolojik destek aldığını belirtirken 297’si (%92) destek almadıklarını belirtmiştir.

Ölen kişiye ilişkin özelliklere bakıldığında, bu kişilerin yaşlarının 9 ile 101 arasında değiştiği (yaş ortalaması = 62.89, SS = 21.40). Katılımcılar, yaşanan ölümlerin 154’sünün (%47.7) doğal bekenlenen sebeplerden (kanser ve yaşlılık gibi) kaynaklanırken, 125’inin (%38.7) doğal bekenmeyen sebeplerden (kalp krizi gibi) ve 42’sinin (%13) şiddet içeren sebeplerden (intihar ve trafik kazası gibi) kaynaklandığı belirtmiştir. Ölen kişi ile olan ilişkiye yakınlığı bakıldığı zaman 91 (%28.2) katılımcı büyük anne-büyük babayı yaşadığını belirtirken, 59’u (%18.3) anne-baba, 56’sı (%17.3) anne-babanın kardeşleri, 20’si (%6.2) arkadaş, 17’si (%5.3) kuzen, 11’i (%3.4) kardeş, 10’u (%3.1) eş ve 1’i (%0.3) çocuk kaybı yaşadığını belirtmiştir.

beş faktörlü yapısının uygunluğunu göstermek için doğrulayıcı faktör analizi yapılmıştır. Bu analiz sırasında 5 madde düşük yüklenme değerlerinden dolayı çalışmadan çıkarılmış ve 51 maddeli ve 5 faktörlü bir yapı doğrulanmıştır $(\chi^2(93) = 228.556, p < .001, \chi^2/df$- oranı $= 2.46, CFI = .95, TLI = .94, RMSEA = .07 [90\% CI = .06,.07], pClose < .05$ ve $SRMR = .05$).

**Sosyal kısıtlanmış Ölçeği.** Lepore, Silver, Wortman ve Wayment (1996) tarafından yas tutan bireylerin algıladıkları sosyal kısıtlanmış düzeylerini ölçmek amacıyla geliştirilen bu ölçek 5’li Likert tipi derecelendirmeyele değerlendirilen ve 10 maddeden oluşan tekli faktör yapısına sahiptir. Ölçekte yer alan maddeler beş maddenin “en yakın kişi” ve “diğer kişiler” için tekrar değerlendirilmesi için tekrarlanmaktadır. Ölçeğin iç tutarlık katsayısı iki ayrı zamanda .77 ile .81 olarak hesaplanmuş ve güvenirlik katsayısı ise .87 olarak raporlanmıştır. Ölçeğin Türkçe adaptasyonu bu çalışmada gerçekleştirilmiştir. Ölçek maddeleri beş uzman tarafından önce Türkçeye daha sonra tekrar orijinal dili olan İngilizceye çevrilmiştir. Gereklü düzenlemeler yapılarak maddelerin son haline karar verilmiş ve Türkçe çeviri süreci tamamlanmıştır. Bu çalışmada ölçeğin güvenirlik katsayısı .80 olarak hesaplanmıştır. Ayrıca ölçeğin orijinal faktör yapısı test edilmiş ve tek faktörlü yapı doğrulanmıştır $(\chi^2(5) = 12.956, p < .05, \chi^2/df$- oranı $= 2.591, CFI = .98, TLI = .97, RMSEA = .07 [90\% CI = .02,.12], pClose > .05$ ve $SRMR = .03$).

**Sürekli Üst-Duygu Ölçeği.** Salovey ve ark. (1995) tarafından, duygu ve üst-duygulardaki değişimleri incelemek amacıyla geliştirilen bu ölçek, 5’li Likert tipi derecelendirmeyele değerlendirilen ve 30 maddeden oluşan üçlü faktör yapısına sahiptir. Ölçeğin Türkçe adaptasyon çalışması, Bugay, Aksöz ve Erdur-Baker (2014) tarafından yapılmıştır. Orijinal faktör yapısının doğrulandığı çalışmada duyguçula dikkat, duygularda berraklık ve duyguları iyileştirme olarak adlandırılan faktörlerin güvenirlik değerleri sırasıyla .76, .73 ve .60 olarak hesaplanmıştır. Bu çalışmada ise ölçegin güvenirlik değerlerinin .62 ile .71 arasında olduğu bulunmuş ve orijinal faktör yapısı doğrulanmıştır $\chi^2(31) = 81.324, p < .001, \chi^2/df$- oranı $= 2.623, CFI = .93, TLI = .90, RMSEA = .07 [90\% CI = .05,.09], pClose < .05$ ve $SRMR = .06$).

**Ruminasyon Ölçeği.** Nolen-Hoeksema ve ark. (1994) tarafından, depresif moda verilen tepkileri ölçmeyi amaçlayan ölçek, 4’li derecelendirmeyele değerlendirilen 22

**Duygu Düzenleme Ölçeği.** Gross ve John (2003) tarafından, duygusal farklılıkları ölçme amacıyla geliştirilen bu ölçek, 7’li Likert tipi derecelendirmeyle değerlendirilen ve 10 maddeden oluşan ikili faktör yapısına sahiptir. Ölçeğin Türkçe çevirisini ve adaptasyon çalışması Yurtsever (2004) tarafından yapılmıştır. “Bastırma” ve “Yeniden ele alma” olarak adlandırılan faktörlerin güvenilir katsayıları sırasıyla orijinal çalışmada .73 ve .79 olarak raporlanırken Türkçe adaptasyon çalışmasında .75 ve .85 olarak raporlanmıştır. Bu çalışmada güvenilir katsayıları bastırma faktörü için .86 olarak hesaplanırken, yeniden ele alma faktörü için .75 olarak hesaplanmış ve iki faktörlü yapı doğrulanmıştır ($\chi^2(33) = 74.395$, $p < .05$, $\chi^2/df$-oranı = 2.254, $CFI = .97$, $TLI = .96$, $RMSEA = .06$ [90% CI = .04,.08], $pClose > .05$ ve $SRMR = .06$).

**Demografik Bilgi Formu.** Katılcılara iki bölümden oluşan bir demografik form verilmiştir. İlk bölüm katılcıların kendisilere ilgili bilgileri (cinsiyet, yaş, medeni durum, eğitim düzeyi, dini inanç ve psikolojik destek) içerirken ikinci bölümde kayıbedilen kişiye ve kayıp şekline dair sorular (kayıbın üzerinden geçen zaman, kayıbedilen kişinin yaşı, cinsiyeti ve katılcı ile olan yakınlığı ve ölüm şekli) bulunmaktadır.
2.3. Verilerin Analizi


3. BULGULAR

3.1. Betimsel Analiz Bulguları

Çalışmanın asıl analizlerine geçmişen önce alan yazının ışığında önemli olabileceği düşünülen demografik değişkenler (katılmcının cinsiyeti, katılmcının dini inancı, ölen kişinin cinsiyeti, ölüm şekli ve kayıbın üzerinden geçen süre) ile bağımlı değişkenler (aktif yas süreçinin ilişkisel yönü ve sosyal işlevsellikte bozulma) arasındaki ilişkiler incelendiğinde, MANOVA sonuçları cinsiyet için anlamlı bir temel etki göstermiştir ($F(7, 648) = 6.68, p < .04$). Değişkenler ayrı ayrı incelendiğinde cinsiyetin duygulara dikkat ($F(1, 654) = 21.01, p < .006$), ruminasyon ($F(1, 654) = 8.279, p < .006$) ve bastırma ($F(1, 654) = 8.279, p < .006$) değişkenleri için anlamlı farklılıklar gösterdiği bulunmuştur. Kadınların duygulara dikkat ($M = 47.91, SS = 8.30$) ve ruminasyon ($M = 22.09, SS = 5.92$) düzeylerinin erkeklerden (sirasıyla, $M = 44.07, SS = 8.20$ ve $M = 20.64, SS = 5.64$) daha yüksek olduğu bulunmuştur. Ayrıca, erkeklerin bastırma düzeylerinin ($M = 16.28, SS = 5.33$) kadınlardan ($M = 13.60, SS = 5.46$) daha yüksek olduğu görülmüştür. Son olarak cinsiyet ve kayıptan sonra geçen sürenin çalışmanın bağımlı değişkenleri (aktif yas süreçinin ilişkisel yönü ve sosyal işlevsellikte bozulma) ile olan...

3.2. Model Testi Bulguları

Çalışmada önerilen yapısal modelin testinden bir önceki adında, kullanılan ölçeklerin modelin içinde birlikte çalıştıklarını doğrulamak amacıyla 12 faktörlü bir yapı doğrulayıcı faktör analizi ile test edilmiştir. Sonuçlar iyi uyum verdiği göstermiştir ($\chi^2(920) = 223.330$, $p < .001$, $\chi^2/df$-orani = 2.42, $CFI = .93$, $TLI = .92$, $RMSEA = .045$ [90% CI = .042,.047], $pClose > .05$ ve $SRMR = .05$) ancak aktif yaş sürecinin ilişkisel yönü ile yaşın travmatik olarak algılanması boyutları arasındaki yüksek çoklu birlikte doğrusallık (multicollinearity) değeri ($\alpha = .83$) bulunmuştur. İki Boyutlu Yas Ölçeğinin yapısı ve kuramsal temeline dayanarak yaşın travmatik olarak algılanması boyutu çalışmada çıkarılmıştır. Bu 11 faktörlü haliley yenilenen yapı, doğrulayıcı faktör analizi ile doğrulanmıştır ($\chi^2(762) = 1904.405$, $p < .001$, $\chi^2/df$-orani = 2.50, $CFI = .93$, $TLI = .92$, $RMSEA = .046$ [90% CI = .043,.049], $pClose > .05$ ve $SRMR = .05$).

Bir sonraki adında bireylerin sosyal kısıtlanmışlık algılarının, üst-duyu süreçlerinin, duygu düzenleme becerilerinin ve rumınsyuv kullanımlarının yaş süreçlerine olan ilişkisini inceleyen model test edilmiştir. Yapsal eşitlik modelli sonuçlarına göre test edilen model kabul edilebilir uyum göstermiştir ($\chi^2(784) = 2123.213$, $p < .001$, $\chi^2/df$-orani = 2.71, $CFI = .91$, $TLI = .90$, $RMSEA = .049$ [90% CI = .047,.052], $pClose > .05$ ve $SRMR = .06$). Test edilen modele göre, aktif yaş sürecinin ilişkisel yönünün içindeki varyansın %62’si rumınsyuv, sosyal kısıtlanmışlık, kaybedilen kişi ile kurulan yakın ve olumlu ilişkiler ve kaybedilen kişi ile kurulan çatışmalı ilişkiler değişkenleri tarafından açıklanmıştır. Aynı zamanda çalışmanın diğer bağımlı değişkeni olan sosyal işlevselliğe bozulmanın içindeki varyansın %58’i de duyugularda
iyileştirme, ruminasyon, yeniden ele alma, sosyal kısıtlanmışlık, kaybedilen kişi ile kurulan yakın ve olumlu ilişkiler ve kaybedilen kişi ile kurulan çatışmalı ilişkiler değişkenleri tarafından açıklanmıştır.

Önerilen modeldeki anlamlı ilişkisi olması beklenen birçok yol çalışma sonuçları ile desteklenmiştir. Sonuçlara göre,

1. Ruminasyon, sosyal kısıtlanmışlık, kaybedilen kişi ile kurulan yakın ve olumlu ilişkiler ve kaybedilen kişi ile kurulan çatışmalı ilişkiler, aktif yas sürecinin ilişkisel yönü değişkeninin anlamlı yordayıcıları olarak bulunmuştur. Diğer bir deyişle, bir yakınının kaybını deneyimleyen bireylerden duyugularda iyileştirme becerisi düşük olanların aynı zamanda ruminasyon tepkilerinin ve sosyal kısıtlanmışlık algılarının yüksek düzeyde olduğu ve aktif yas sürecinin ilişkisel yönünde yaşadıkları zorlukların daha yüksek düzeyde olduğu bulunmuştur.

2. Duyugularda iyileştirme, ruminasyon, yeniden ele alma, sosyal kısıtlanmışlık, kaybedilen kişi ile kurulan yakın ve olumlu ilişkiler ve kaybedilen kişi ile kurulan çatışmalı ilişkiler, sosyal işlevsellikte bozulma değişkeninin anlamlı yordayıcıları olarak bulunmuştur. Diğer bir deyişle, bir yakınının kaybını deneyimleyen bireylerden duyugularda iyileştirme becerisi düşük olanların aynı zamanda yeniden ele alma stratejisinin daha az kullandıkları, ruminasyon tepkilerinin ve sosyal kısıtlanmışlık algılarının yüksek düzeyde olduğu ve sosyal işlevselliklerinde daha yüksek düzeyde bozulma raporladıkları görülmüştür.


4. Kaybedilen kişi ile kurulan yakın ve olumlu ilişkiler bastırma stratejisini yordamış ancak beklenenin aksine, yeniden ele alma stratejisi ile arasında anlamlı bir ilişki bulunamamıştır. Kaybedilen kişi ile olan ilişkinin yakın ve olumlu algılanmasını, bireylerin daha az bastırma stratejisi ve daha çok yeniden ele alma stratejisi kullanımlarıyla ilişkili olacaği varsayılmış, ancak bastırma ile olan ilişki beklenenin aksi yönde (negatif) bulunmuştur.

6. Ruminasyon değişkeni modelde bastırmaya stratejisi ile bağımlı değişkenler (aktif yas sürecinin ilişkisel yönü ve sosyal işlevsellike bozulma) arasında aracı (mediator) rol oynadığı görülmüştür.

7. Yeniden ele alma stratejisinin sosyal işlevsellike bozulma üzerinde negatif bir doğrudan etkisi bulunmuş ancak aktif yas sürecinin ilişkisel yönü üzerinde anlamılı bir doğrudan etki bulunmamıştır. Ayrıca, bastırmaya stratejisinin her iki bağımlı değişken ile anlamılı doğrudan ilişkileri bulunmaktadır.

8. Duygulara iyileştirme her iki bağımlı değişken için de anlamılı bir yardımıcı olarak bulunmuş ve aynı zamanda bu değişkenin duygulara dikkat ve bağımlı değişkenler ile duygulara berraklık ve bağımlı değişkenler arasında aracı rol oynamıştır.

9. Sosyal kısıtlanmışlık değişkeninin aktif yas sürecinin ilişkisel yönü ve sosyal işlevsellike bozulma bağımlı değişkenleri üzerine anlamılı doğrudan etkisini yanı sıra, ruminasyon ile bağımlı değişkenler arasında ve kaybedilen kişi ile kurulan çatışmalı ilişkiler ile bağımlı değişkenler arasında aracı rolü bulunmaktadır.

4. TARTIŞMA

Kayıp deneyimi evrensel bir deneyim olduğu için bireylerin yas tepkilerinin incelenmesi de popüler araştırma alanlarındandır. Bireyler sevdikleri kişinin, evcil hayvanlarınınn, kimliklerinin kaybına hatta kayıpla karşı karşıya getiren kaza ya da ağır hastalık durumlarında da yas tepkileri gösterebilir. Kayıp evrensel bir deneyimdir, ancak yas tepkileri...
kültürden kötülüğe ve bireyden bireye değişebilir. Bu değişiklikler ölüm türü gibi kayıplar ilgili özelliklerden (sevilen kişinin ani kaybı, beklenen kayıp, kayıp tehlikesi, vb.) kaynaklandığı gibi, işçil (üst-duyu süreçleri, duygu düzenleme stratejileri ve ruminasyon tepkileri gibi) ve kişisel arası (sosyal kısıtlanmışlık ve ölen kişi ile olan ilişkiler gibi) süreçlerden de kaynaklanıyor olabilir. Yas sürecini derinlemesine anlayabilmek için alanda farklı çalışmalara ele alınan değişkenler bir arada getirilmiş ve yas sürecini etkileyebilecek işçil ve kişisel arası değişkenler incelenmiştir. Bu çalışma, aynı zamanda yeni değişkenlerle birlikte test ederek, İki Boyutlu Yas Modelinin bulgularını/yorumlarını geliştirme hedeflemiştir.


Son adım olan model testi sonuçlarına göre, yüksek duygusal zekâ (üst-duygu kullanımı) raporlayan katılımcılar aynı zamanda yeniden alma stratejisini daha fazla ve bastırma stratejisini daha az kullanıklarını, daha az ruminasyon yaptıklarını, daha az sosyal kısıtlamışlgı algıladıklarını ve ön kişi ile olan ilişkilerin yaş sürecindeki etkisinin daha düşük olduğunu ve sosyal işlevselliklerinde daha az bozulma deneyimlediklerini raporlamışlardır. Öte yandan, duygularına daha fazla dikkat eden katılımcılar, aynı zamanda duygularını daha fazla bastırdıklarını, daha fazla ruminasyon yaptıklarını, daha fazla sosyal kısıtlamışlgı algıladıklarını ve ön kişi ile olan ilişkilerin yaş sürecindeki etkisinin daha
olumsuz olduğunu ve sosyal işlevselliklerinde daha fazla bozulma deneyimlediklerini raporlamışlardır.

Yukarıda özetlenilen sonuçlara bakılarak, bu çalışma zorlu yaşam olaylarıyla başa çıkmada duygularla iyileştirme ve duygdu düzenleme stratejilerinin olumlu, ruminasyon ve sosyal kısıtlanması algılarının ise olumsuz mekanizmalar olduğunu göstermiş ve bu bulgularla önceki çalışma bulgularını desteklemiştir. Ayrıca, bu çalışma bireylerin sosyal, duygusal ve bilişsel özelliklerinin yaşadıkları yaş sürecinde önemli etkileri olduğunu göstermiştir. Böylece, bu çalışma birbirinden farklı çalışmalarda incelenen değişkenleri bir araya getirmiş, İki Boyutlu Yas Modelinin bulgularını ve açıklamalarını genişletmiş ve böylece yasla başa çıkma süreci hakkında detaylı ve geniş kapsamlı bir bakış açısı sunmuştur.

4.1. Uygulamaya ve Araştırmaya Yönelik Öneriler

Sevilen bir kişinin kaybı sık yaşanan bir deneyim olduğu için bu çalışma psikolojik danışmanlık ve araştırma alanlarında birçok önemli öneride bulunmaktadır. Bunların başında katılımcıların yaş aralığı, eğitim düzeyi, çalışma durumu ve yaşanan kaybın şekli geniş bir aralıktadır. Bu geniş aralık yetişkinlerle çalışan psikolojik danışmanların birçok farklı grup için çalışma sonuçlarından faydalanabileceğini göstermektedir.


kayıbını yaşayan ve yas sürecinde olan danışanlara çalışan psikolojik danışmanlar Bilişsel Davranışçı Terapi ve Ussal Duygusal Davranışçı Terapi gibi kuramların temellerinden, tekniklerinden ve uygulamalarından faydalanabilir.


olmaları ve kaybedilen kişiyle devam eden eden bağların işlevsel ve işlevsel olmayan etkileri üzerine odaklanmaları önerilir.


5.3. Sonraki Çalışmalar için Öneriler

Bu çalışmanın birtakım kısıtlılıkları da bulunmaktadır. Örneğin, yas sürecinde önemli olabilecek bazı değişkenler (cinsiyet, kaybin üzerinden geçen zaman ve ölüm şekli gibi) katılımcı sayısında eşit gruplardan oluşamamakta ve karşılaştırma yapılmasına engel olmaktadır. Sonraki çalışmalarda bu değişkenler için katılımcıların dengeli dağılmalarına dikkat edilerek, anlamlı farklılıklar görüldüğü zaman kontrol değişkeni olarak analizlere eklenmesi önerilebilir.


Daha önce de belirtildiği gibi, Türkiye’de yas çalışmalar yeterli sayıda değildir. Ancak sıklıkla doğal afetlerin, salgın hastalıkların ve terör olaylarının yaşandığı bir coğrafyada kayıp ve yas sıkıla karşılaşılan bir durumdur. İlerki çalışmalarda bu çalışmada kullanılan değişkenlerin derinlemesine incelemesi ve kültürel (cenaze gelenek görenekleri, ölüm ile ilgili ritüeller, duyguların ifadesindeki kültürel normlar gibi) değişkenlerin eklennmesi ile Türk kültürüne özel bir yas kuramı geliştirilmesi mümkün olabilir. Böylece bu kültürde yasın nasıl bir süreçte ilerlediğini, hangi özelliklerin yaş sürecini kolaylaştırıcı, hangilerinin zorlaştırıcı etkileri olduğu, başka kültürlerle benzerliklerin ve farklılıkların nedefi oldugu gibi noktalarda derinlemesine bilgi edinilmesi sağlanabilir.

Bu çalışmada ayrıca birçok değişkenin aracı rolü olduğu görülmüştür. Duygu düzenlemesi süreçlerinin, ruminasyonun ve sosyal kısıtlanmışlık algısının bağlı değişkenler üzerinde doğrudan etkilerinin yanı sıra aracı etkileri de bulunmuştur. Ancak bu aracı etkilerin ilerleyen çalışmalarda tekrar ele alınması, modelin içinde kapsamlı bir örüntü içinde olan değişkenlerin birbirleriyle olan ilişkileri hakkında daha detaylı bilgi edinilmesi için önemli olabilir.

Appendix D

Curriculum Vitae

İdil Aksöz-Efe

E-mail: iaksoz@metu.edu.tr

Education

2007 - 2015
Ph.D., Middle East Technical University, Ankara, Turkey,
Psychological Counseling and Guidance, Department of
Educational Sciences, College of Education

2002 - 2006
B.A., Ankara University, Ankara, Turkey
Psychological Counseling and Guidance, Department of
Educational Sciences, College of Educational Sciences

Research Interests

Grief and loss, Meaning Reconstruction Theory, cultural rituals, mood and emotion
regulation processes, disasters and trauma, psychological first aid.

My interests are in the applications of mood and emotion regulation processes, effects of
cultural rituals and meaning-making processes in grief and loss experiences and in the
aftermath of trauma and disasters.

Professional Experience

Oct. 2006 to Current
Research Assistant, Middle East Technical University,
Ankara, Turkey
Department of Educational Sciences, College of Education
Responsibilities include conducting research, assisting
undergraduate and graduate students

Aug. 2011 to Jan. 2013
Visiting Scholar, Purdue University, IN, USA
Counseling Psychology, Department of Educational Studies,
College of Education
Research on college students’ stress and coping,
participating in research activities on grief and loss
Volunteer Experience

Responsibilities include rehabilitation with art and sport activities and group counseling with the imprisoned children

June 2005 to July 2005 **Intern**, Cukurova University Medicine Faculty, Child Psychiatry Department, Adana, Turkey
Responsibilities include observing the clinic sessions, administering and scoring intelligence, personality and achievement tests

Awards and Honors

2014 Turkish-German Association for Psychiatry, Psychotherapy and Psychosocial Health, Intercultural Conference Attendance Scholarship

2013 2224 Young Researcher International Conference Attendance Scholarship, TUBITAK, Turkey

2013 Association for Death Education and Counseling, ADEC Student Initiative Conference Scholarship

2007-2014 2211 National Doctoral Scholarship, TUBITAK, Turkey

Publications in Peer-Reviewed Journals


Publications in Conference Journals


Book Chapters and Translations


Research Projects

Presentations at International Conferences


Professional and Service Activities


Aksoz, I. (2010, October). Medya ve Diğer Kuruluşlarla İletişim ve Bilgi Aktarımı [Communication and Information Flow to Media and Other Institutions]. Afetlerde Psikososyal Hizmetler Birlüğü [Association of Psychosocial Services at Disasters Training], North Cyprus Turkish Republic: North Cyprus Turkish Red Crescent.


Professional Affiliations

- Association for Death Education and Counseling, since 2013
- Association of Psychosocial Services at Disasters, since 2009
- Turkish Psychological Counseling and Guidance Association, since 2006
Appendix E

Tez Fotokopisi İzin Formu

ENSTİTÜ

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YAZARIN

Soyadı: AKSOZ-EFE  
Adı : İDİL  
Bölümü : EĞİTİM BİLİMLERİ

TEZİN ADI (İngilizce): SOCIAL, COGNITIVE AND EMOTIONAL STRATEGIES IN THE GRIEF PROCESS

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1. Tezimin tamamından kaynak gösterilme şartıyla fotokopi alınıbilir.   
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilme şartıyla fotokopi alınamaz.   
3. Tezimden bir (1) yıl süreyle fotokopi alınamaz.  

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