

PROCESSING LOSS USING THE EXPRESSIVE WRITING PARADIGM:
HOW NEGATIVE AFFECTIVITY INFLUENCES THE OUTCOME

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PROCESSING LOSS USING THE EXPRESSIVE WRITING PARADIGM:
HOW NEGATIVE AFFECTIVITY INFLUENCES THE OUTCOME

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Nağme Ak

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DECLARATION OF ORIGINALITY

I, Nağme AK, certify that

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ABSTRACT

Processing Loss Using the Expressive Writing Paradigm:

How Negative Affectivity Influences the Outcome

Experiencing and processing a loss can be challenging. The Expressive Writing (EW) paradigm, which has been studied for decades to examine its benefits on both people's physical and psychological well-being, is one intervention method to facilitate this process. In order to contribute to the previous EW studies and to examine individual differences, negative affectivity (NA), which is known to be influential on people's psychological functioning, was chosen. The sample of the present study was 86 Boğaziçi University students (59 female and 27 male) who were randomly assigned into two conditions. The experimental group (EG) was instructed to write about their loss experience and the control group (CG) was asked to write about their daily routines, for 15 minutes on four days within one week. The daily writing instructions for the EG were structured to increase the efficacy of the intervention by adding the perspective switching approach and writing about resilient parts of the self on separate days. The assessments were done both at baseline and three weeks later after the completion of the writing intervention. Being in line with some of the previous studies, it was hypothesized that the EW intervention would bring positive changes in terms of lower depression, rumination, and the loss-related intrusion, avoidance, and hyperarousal as well as higher post-traumatic growth, especially for the EG participants who were high on NA level. Although this hypothesis was not supported, the exploratory analyses using Linguistic Inquiry and Word Count (LIWC) program revealed some pioneering results for the negative affectivity groups.

ÖZET

Kayıp Duygusunun Yazılı Duygusal Dışavurum Paradigması ile İşlenmesi:

Kişilerarası Negatif Duygulanım Farklarının Sonuç Üzerindeki Etkileri

Kayıp deneyimi ve işlenmesi zorlayıcı olabilmektedir. Onlarca yıldır, kişilerin hem fiziksel hem de psikolojik iyi oluş hallerine sağladığı faydalar üzerine çalışılan Yazılı Duygusal Dışavurum (YDD) paradigması bu sürece olumlu etki sağlayan metotlardan biridir. Daha önceki YDD çalışmalarına katkı sağlamak ve kişilerarası farklılıkları incelemek için, bireylerin psikolojik işlevselliklerini etkilediği bilinen negatif duygulanım seçilmiştir. Bu çalışmaya katılan 86 Boğaziçi Üniversitesi öğrencisi (59 kadın ve 27 erkek) seçkisiz atama yoluyla iki gruba ayrılmıştır. Bir hafta içinde dört günde 15'er dakika boyunca, deney grubuna kayıp deneyimlerini yazmaları için yönerge verilmiş ve kontrol grubundan günlük rutinlerini yazmaları istenmiştir. Deney grubunun günlük yazma yönergelerine, paradigmanın etkisini arttırmak amacıyla, perspektif değiştirme ve psikolojik dayanıklılıkları hakkında yazma metotları da farklı günlere eklenmiştir. Başlangıçta ve yazma müdahalesi tamamlandıktan üç hafta sonra olmak üzere iki değerlendirme yapılmıştır. Daha önceki bazı çalışmalarla uyumlu olarak, YDD'nin sağladığı olumlu değişikliklerin, özellikle negatif duygulanımı yüksek olan deney grubu katılımcılar için, depresyon, rüminasyon, kayıp ilişkili istemsiz düşünce, kaçınma ve uyarılmanın azalmasıyla birlikte travma sonrası büyümenin artışı olacağı beklenmiştir. Her ne kadar bu hipotez desteklenmemiş olsa da, özellikle Linguistic Inquiry and Word Count (LIWC) programının verdiği sonuçlar kullanılarak yapılan keşif analizleri negatif duygulanım grupları ile ilgili öncü olabilecek bulgular ortaya koymuştur.

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CHAPTER 1

INTRODUCTION

1.1 Loss as a traumatic experience

Everyone experiences varying degrees of traumatic experiences and uses different coping strategies to survive and keep going. The definition of trauma in The Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-V; APA, 2013) mainly covers the “exposure to actual or threatened death, serious injury, or sexual violence...” (p. 271). This definition has been criticized with respect to the idea that not all traumas are related to death, serious injury, or sexual violence (Anders, Frazier, & Frankfurt, 2011). The degree of severity of the event/situation varies from person to person. Briere and Scott (2016) have offered another definition which is based on this subjective aspect of the trauma. They consider an event or a situation as traumatic when it is extremely emotional and causes long-term psychological symptoms, and the person’s internal abilities remain incapable to cope with it at least for a short time. When this definition of trauma is accepted, experiences of significant loss could also be traumatic (LaGrand, 1985).

The first concept loss brings to mind usually is death. However, if the term loss would be defined as absence and/or disappearance of something, any kind of deprivation can cause grief reactions. For instance, the loss of health, body function, income (Brown & Stoudemire, 1983), cognitive capacity (Wortman & Silver, 1989), and the end of a romantic relationship (Archer & Fisher, 2008) are some examples of losses in life. Each person has their unique experiences of loss. Feelings of helplessness, anger, denial, guilt, shame (Brown & Stoudemire, 1983), and emptiness (LaGrand, 1981) could follow the loss experience. While there are also some

clinically observed reactions like anxiety, depression, somatization, distress, dissociation, psychosis, and substance abuse following loss (Briere & Scott, 2016), not all reactions are associated with a clinical picture. Search for the meaning of both the loss and life in general cannot be classified under any clinical diagnosis (Briere & Scott, 2016). As LaGrand (1985) has simply but broadly stated, “there are probably as many grieving styles as there are life-styles” (p. 18).

There are some aspects that can affect the intensity and types of reaction to loss experience and thus present itself as complicated loss reactions. Event characteristics, the level and type of social support the person gets during and after the loss, and the characteristics of the traumatized person (Briere & Scott, 2016; Brown & Stoudemire, 1983) often interact with each other.

Losses other than death are usually not considered to be as significant and impactful as the death-related ones; however, during times of crisis, the effects of social support and being in contact with others have been found to be crucial (LaGrand, 1985). The nonjudgmental and empathetic attitude of the social network offers significant help to process the loss (Briere & Scott, 2016; Blatner, 2005). Conversely, it has been found that when the social network includes people who criticize a lot and put demands on the grieving person, it creates a new source of stress (Lincoln, Chatters, & Taylor, 2005). Also, society as a whole, in other words culture, determines some aspects of the support traumatized person gets. For instance, discrimination against stigmatized groups in the society might cause them to face prejudice and not to get proper support in times of trauma (Brown, 2008). Additionally, social support is linked with acceptability of the event characteristics in a way that some traumas are considered as being more acceptable by society (Briere & Scott, 2016). For example, death of a loved one as a result of a traffic accident is

more acceptable and the grieving relatives receive proper social support from the community only if the deceased person was not a drunk driver.

The type of loss also determines people's reactions and related experiences. Loss of health, for example being diagnosed with a chronic illness, might cause the person to feel as if they have lost the control over their own lives (Sidell, 1997) whereas end of a romantic relationship can lead to feelings of guilt via questioning what the grieving person could have done differently to prevent the ending (LaGrand, 1985).

Gender is also one of the aspects which affect personal reaction to loss of a loved object together with socioeconomic status, past history of trauma and mental health problems (Briere & Scott, 2016). Age is also a unique dynamic in a way that "past traumas may be telescoped into a present traumatic event. Since trauma is ubiquitous in childhood, a completely isolated single adult trauma is a theoretical abstraction" (Blum, 2003, p. 421). Despite all these mentioned differences, there are also some commonalities among the grief processes of people.

The most well-known and accepted theory of grief is the five-step theory of Kübler-Ross (1969). These phases should not be considered as step-like one-directional process, rather people tend to swing from one to another in their process of loss. Although the theory is mainly about death, grief processes of all kinds of loss experiences can be similar (Blatner, 2005). According to Kübler-Ross's theory (1969), step one is denial and isolation. At this step, people deny at varying levels that the loss has really happened. The shock of the loss becomes overwhelming and denial is a defense mechanism that help people to overcome the first wave of shocking emotions (Axelrod, 2019). The second step is the anger stage. "Why me" is considered to be the question related to anger people experience regarding the loss.

The next step is bargaining at which people try to change the course of loss in a way that they feel in control (Axelrod, 2019). Thoughts in the theme of “if only” and/or “I will do anything” are common at this stage. The emotions are intense at this stage and people negotiate and bargain by wishfully thinking that they could change the reality. Depression is at the fourth stage. Mainly, feeling depressed is related to understanding and facing the inevitability of loss. Acceptance, the last step, is arrived at only after this confrontation and understanding is secured.

Bowlby (1980) has also offered a step-like process of grief. The main view behind his theory is the separation of young children from their love objects (Archer, 1999). The four steps of his theory overlap with the Kübler-Ross’ phases. The first one includes numbness and disbelief that at some point disrupted by anger and/or distress whereas at the second step, yearning and searching are seen (Bowlby, 1980). While disorganization and despair are at the third phase, reorganization at the last step is considered to be recovery (Archer, 1999) and detachment is crucial in a way that accepting life without the lost one and reorganization makes possible new attachments with others (Harvey, 2000).

Horowitz (1986) has also offered another theory and suggested that people try to match the traumatic event to their inner models. Traumatic memories exist as fragmented and unstructured in people’s memories (Klein, 2002). During matching process, people re-experience the trauma and have symptoms like intrusive and avoidant thoughts related to it (Horowitz, 1986). In Horowitz’s theory, specifically, intrusive thoughts are considered to be necessary parts of the process of matching trauma to the people’s inner models while these thoughts themselves can also be stressful. Against this stress source, avoidance can be used as a defense strategy which can also be used excessively and be harmful to the cognitive adaptation

process. In other words, according to this theory, while people are trying to understand and turn the trauma into something familiar, they experience some symptoms like intrusive and avoidant thoughts until the integration of traumatic memories with the existing inner models (Horowitz, 1986). Another theory which sees the grieving as a process of adaptation has been offered by Janoff-Bulman (1992). In this theory, it has assumed that people have core assumptions about life and traumas can challenge those assumptions. At the time of traumas, people need to change their core assumptions by using two strategies: (1) to alter their core assumptions based on the trauma's outcomes, or (2) turning the trauma into something that matches the core assumptions and assimilating it. Another view comes from constructivist theory that emphasizes the meaning making process with respect to the idea is that any significant loss changes the view of both the world and the self (Gillies & Neimeyer, 2006). Neimeyer (2000) has specifically suggested that grief work should include both the interpersonal issues brought by the loss experience and also the personal struggles for understanding and finding some meaning of the loss.

The theories summarized above refer to the commonalities among the process of grieving, while it is difficult to operationalize what "normal" grief is (Bonanno & Kaltman, 2001; Middleton, Raphael, Martinek, & Misso, 1993). Some definitions of variations in grieving process have been offered based on the reaction types, duration, and timing. The conceptualization of the grief types based on these aspects have long been studied. Some of the classification of grief responses by different theorists overlap with each other. For example, the inhibited grief, which is conceptualized as not expressing emotions and not talking about the event, basically restraining oneself even from crying, overlaps with the absent grief (Middleton et al.,

1993) which is defined as avoiding all related emotions, denying being sad, and possibly becoming numb at the end (Brown & Stoudemire, 1983). The delayed grief has been conceptualized as typical which may not be seen for weeks or years, and the chronic grief, which overlaps with the unresolved grief, is thought when the reactions are long-lasting (Middleton et al., 1993). Besides, these categories have also been used by other theorists with different operationalizations. For instance, Parkes (1965) has defined chronic grief as being typical with long period of time whereas Bowlby (1980) has defined it as having more destructive effects on people (for a review; Bonanno & Kaltman, 2001).

One of the most comprehensive conceptualization of grief responses has been offered by Rando (1993). She has defined the six R process and offered a definition for the concept of complicated grief as a deterioration at one or more of these processes. The six R process is namely consisted of the processes of recognition, reaction to the separation, recollecting and reexperiencing, relinquishing the old attachments and old assumptions about world, readjusting without forgetting the old, and reinvesting (Rando, 1993).

All of the grief theories mentioned above see grieving as a necessary process. The point is that life before the traumatic loss is experienced very differently and feels dissociated from the one after it. People who experience a loss of a significant object, mourn both for the self and also for the internal object world before loss (Blum, 2003). According to psychodynamic theory of “grief work”, after experiencing loss, the key for psychological healing is the process of internalization during which the person, consciously and/or unconsciously, symbolically internalizes the best parts of the lost one (Blatner, 2005) while accepting the world without the lost object (Blum, 2003). In other words, the person takes the lost one’s desirable

aspects into his/her own self and makes them part of him/herself. By this way, the lost one does not completely disappear. The concept of grief work consists of a long and emotionally painful time period in which the grieving person confronts thoughts and experiences emotions related to the loss and progresses; but it must not be mistaken for rumination in which there is no place for progression (Archer, 1999).

During this progressive time of grief work,

The lost object may be idealized, denigrated, or both. But as mourning proceeds, the mourner no longer actively seeks reunion with the loved one in pleasant or painful preoccupation or conscious fantasy. The mourner, as time passes, is less afraid of the revival of initial grief and panic associated with the loss (Blum, 2003, p. 423).

1.2 Writing about traumatic experiences

The accepted view is that grief work is a process in need of time. During this time, while some grieving people do not prefer talking about their loss experience, they are eventually expected to come to the point at which they can communicate through language even though nonverbal presentation of the self is also valuable (Blum, 2003). Some people also avoid their intense feelings related to their loss experiences and "... focus on the deeper dynamics of the grief work by helping the grieving person to talk about the pain, the loss, the past, the future, the personal meaning, and all the feelings and ideas and memories and crushed dreams" (Blatner, 2005, p. 2). As referring to his own longitudinal study on the college students' experience of losses, LaGrand (1981) have concluded that students have reported writing as one way of coping with loss; therefore, he has suggested broadening the view of coping mechanisms. Today, the expressive writing (EW) paradigm is a structured intervention method and can be summarized as a working through process via writing about thoughts and emotions on personally traumatic and/or important life

events for 15-20 minutes on three - five consecutive days. Over three decades, differences both in the procedure and the outcomes have been studied in order to understand the underlying processes and to increase the paradigm's efficacy. Processing loss and supporting people going through times of grief are parts of studied phenomena under the EW paradigm.

1.2.1 Introduction to expressive writing

By talking or writing about an emotionally charged event, people express their emotions and thoughts related to it. Not talking about traumatic events is considered as a kind of inhibition (Pennebaker & Beall, 1986). The idea that inhibiting traumatic events has a negative effect on health (Pennebaker & Susman, 1988) was the starting point of considering expressive writing as a way of unveiling the effect of inhibition.

The first EW study (Pennebaker & Beall, 1986) hypothesizing a link between inhibition and physical health, reported that confronting the emotions and thoughts about a personally important issue could provide physical health-related benefits. The participants were assigned into four different conditions which were the trauma-emotion, the trauma-fact, the trauma-combined, and the control conditions. As it can be inferred from the names of the conditions, the participants in the trauma-emotion condition were asked to write only about their emotions about the trauma whereas the trauma-fact group wrote only about the factual aspects of the event. Also, the trauma-combined group were asked to include both the event itself and their emotions related to it while the control group participants were assigned to write about different trivial topics for each day (e.g. descriptions of their room, shoes they were wearing, etc.). They measured the physical health outcomes by blood pressure levels before and after the writing, and the health center/physician visits and aspirin

use in the months following the study. One of the critical findings of their study was that participants who wrote just the facts about the event without mentioning any emotions related to the event were similar to the control group on most outcome measures. Additionally, although the participants who wrote just about their emotions related to the issue had changes close to the people who wrote about both the event and the related emotions, people in the latter group showed the most profound changes on the outcome measures.

1.2.2 Outcomes of expressive writing

Since Pennebaker and Beall (1986), several studies have been conducted to see the effects of EW on separate outcomes like physical health, objective behavioral, psychological well-being, and cognitive change.

1.2.2.1 Benefits of the EW paradigm

The effects of EW have been examined by meta-analytical approach at many times. To begin with, Smyth (1998) included 13 studies only with clinically undiagnosed populations and reported the general effect size as positive and significant ($d = .47, p < .0001$). Another meta-analysis (Frisina, Borod, & Lepore, 2004) has been done by nine studies with clinical (both physically and psychologically diagnosed) populations. Frisina et al. (2004) have found relatively modest overall effect size ($d = .19$). A more recent meta-analysis has been done by Frattaroli (2006). This analysis has included both clinical and healthy population samples within both published and unpublished datasets; and analyzed 146 studies at the end. The reported overall unweighted effect size was .075 and the weighted one was .063. Contradictory to these results, one meta-analysis (Mogk, Otte, Reinhold-Hurley, & Kröner-Herwig,

2006) consisted of 30 studies with the follow-up assessments at least four weeks later examined only the long-term effects and failed to find any positive effects of EW on any kind of outcomes (i.e. physical and psychological).

1.2.2.1.1 Physical health

The most generally used physical health outcome is health center and/or general practitioner visits for illnesses (e.g. Graybeal, Sexton, & Pennebaker, 2002; Greenberg & Stone, 1992; Pennebaker, Kiecolt-Glaser, & Glaser, 1988). For instance, Pennebaker and his colleagues (1988) have compared the participants' health center visits five months prior to the EW sessions to the visit number for six weeks later. They have found a significant drop in the illness visits of the experimental group who wrote about their most traumatic memories for 20 minutes on four days. Pennebaker and Francis (1996) have also found that college students, who wrote about their experiences of coming to college for 20 minutes on three days, have shown significantly more decrease in health center visits in general and lesser number of illness visits than the control group participants. Similar results (i.e. decline in health center visits) have also been reported in the study conducted by Pennebaker, Colder, and Sharp (1990).

Some other physical outcomes have also been used as outcome measures. For example, immune functioning was measured by antibody response to Epstein-Barr virus (EBV) via blood collection both at one week before and also at one week after the writing sessions (Esterling, Antoni, Fletcher, Margulies, & Schneiderman, 1994). They have analyzed the participants' EBV antibody titers levels and looking at any decrease which indicates better cellular immune control over EBV. They have found that the disclosure groups written essays or vocal (i.e. tape recording) significantly

decreased their EBV antibody titers at the 4-week follow-up assessment. Petrie, Booth, Pennebaker, Davison, and Thomas (1995) gave the participants hepatitis B vaccinations after EW sessions and reported that people who were in the experimental group and wrote about their personal issues showed significantly higher level of antibodies against hepatitis B. Also, Greenberg, Wortman, and Stone (1996) have studied the upper respiratory symptoms as a physical outcome and reached the conclusion that people who wrote personal traumas decreased their symptomatology levels at the 4-week follow-up assessment. In addition to these findings, some autonomic and cardiovascular outcomes such as skin conductance levels which were found to be steadily decreased over the 4-day writing sessions for the EW participants (Petrie et al., 1995), and increased heart rate during the disclosure of traumatic experience (Pennebaker, Hughes, & O'Heeron, 1987) have also been reported.

Some other studies have been conducted with more specific populations in order to assess physical outcomes more endemic in those populations. For example, people with the diagnosis of asthma increased in their lung functioning after EW intervention and rheumatoid arthritis patients showed improvements in general disease activity (Smyth, Stone, Hurewitz, & Kaell, 1999). The change in the body image of women with different levels of eating disorder was also studied and it was concluded that EW was effective for improving current body image of women with high level of symptomatology (Lafont & Oberle, 2014). Additionally, fibromyalgia patients reported decrease in their pain and fatigue, and also showed improvements in psychological well-being at the 4-month follow-up assessment even though these benefits were not observed at the 10-month follow-up time (Broderick, Junghaenel, & Schwartz, 2005).

Cancer patients are one of the most studied samples. For instance, Creswell and his colleagues (2007) have conducted an EW study with early stage breast cancer survivors. Creswell et al. (2007) have asked their participants to write about their diagnosis as the EW intervention. They have divided their sample into three groups: the emotional expression group wrote about their deepest feelings and thoughts related to their situations, the benefit finding group's essays were about positive feelings and thoughts, and the fact writing group wrote only about the illness and its treatment. The distinctive measure they have analyzed was the sentences referred to self-affirmation which was operationalized as "a positive reflection on a valued self-domain" (p. 242; Creswell et al., 2007). The results of this study have showed that self-affirmation was a significant mediator of the relation between the two disclosure conditions and the decrease in physical symptoms at the 3-month follow-up assessment whereas self-affirmation was not associated with the visits to the specialists.

There are also some meta-analyses that specifically examined efficacy of the EW intervention for cancer patients. For instance, Zachariae and O'Toole (2015) have included 16 studies and failed to find any significant effect of EW on any outcome measures while Oh and Kim (2016) have reached different results for some outcome types. They have included 14 studies of which only one was non-randomized trial. They have found that EW has a small effect ($d = 0.26$) on the physical outcomes such as pain, sleep disturbance, and fatigue. Moreover, the effects of EW intervention for the breast cancer patients have been analyzed by another meta-analytic study with 11 randomized control trials (Zhou, Wu, An, & Li, 2015). They have found a decrease in negative outcomes of the disease at the follow-up assessment which were no longer than three months. However, they have analyzed

results of the studies which had the follow-ups more than this period and found that this positive effect did not remain longer than three months. Even so, an important suggestion has been made from these results. Oh and Kim (2016) have offered that for the cancer patients, both the number and the length of the EW sessions should be increased because cancer patients need more time to write both about the facts and feelings and also to process their cancer-related emotions.

Meta-analytic studies with variety of samples generally report that the highest effect sizes belong to the physical health outcomes. For instance, in his meta-analysis, Smyth (1998) has found that the physiological functioning in general had a highly significant ($p < .0001$) d -value of .68 even though for the reported health outcomes which included health center visits, self-reported symptoms, and upper respiratory illness ($d = .42, p < .0001$) were found to be somewhat lower. Similarly, Frattaroli (2006) has also reported that the highest effects sizes were the mean weighted effects for self-reported physical health outcomes like general physical symptoms ($r = .056$) and physiological outcomes like blood glucose levels ($r = .054$).

1.2.2.1.2 Objective behavioral outcomes

One of the most common objective behavioral measure used in EW paradigm is improvements in grades among college students especially when they wrote about their current issue which is coming to college (e.g. Pennebaker et al., 1990). The EW intervention was also found to be effective in changing the unemployed people's attitudes towards their previous jobs, making them reappraise their situation, and resulting in finding new employments by doing not quantitatively but qualitatively better job on searching for a new one (Spera, Buhrfeind, & Pennebaker, 1994). Lower absentee rates among workers who wrote about their personal traumatic

experiences for four consecutive days as EW intervention were also reported (Francis & Pennebaker, 1992). However, health related behaviors like weekly vitamin use, exercise, alcohol consumption, cigarette smoking, and aspirin usage were not found to be directly affected by the EW intervention (Pennebaker et al., 1990).

The meta-analytical findings have also examined the EW's effects on objective behavioral outcomes. Specifically, Smyth (1998) has reported that the general functioning variables, which are classified by him as reemployment, GPA, absenteeism, cognitive functioning (thought generation, reaction time), and social behavior had highly significant effect size ($d = .33, p < .0001$) whereas Frattaroli (2006) found smaller effect size ($r = .036$) for the general functioning variables like social behaviors.

1.2.2.1.3 Psychological well-being and cognitive change

A well-known immediate consequence of EW is that whereas people who wrote about personal events report feeling more distressed than the control group participants during writing sessions (Smyth, 1998), the follow-up assessments at least one month after the sessions show that people in the EW group tend to report lower levels of distress than controls (Pennebaker, 2003). For example, Hemenover (2003) have studied the effects of EW on resilient self-concept and psychological distress. He has operationalized distress as comprised of the levels of depression, anxiety, somatization, hostility, and interpersonal sensitivity while resilient self-concept was composed of autonomy, personal growth, environmental mastery, self-acceptance, purpose in life, and positive relations with others. In this study, college students in the experimental group were asked to write about a personally traumatic event that they have not previously disclosed much for 20 minutes on three days. The

3-month follow-up results have shown that the experimental group decreased in psychological distress domains specifically depression, somatization, anxiety, and interpersonal sensitivity. Also, they have shown significant improvements in sense of autonomy, self-acceptance, and personal growth. Stockton, Joseph, and Hunt (2014) have also conducted an internet-based study to examine the effects of the EW intervention on psychological well-being and post-traumatic growth. This study had one EW condition in which participants wrote about the most traumatic experience of their lives, and the participants in the control condition wrote about daily routines and plans for 15 minutes at three times that were divided by three days. The assessments were done at pre-test, two and eight weeks later. Stockton and her colleagues (2014) have found that the changes in intrusion, avoidance, and hyperarousal scores did not differ across conditions. However, Stockton et al. (2014) have also reported that the EW participants significantly increased from pre-test to 8-week follow-up in their psychological well-being – post-traumatic change questionnaire scores which had the subscales of self-acceptance, autonomy, relationships, personal growth, purpose of life, and sense of mastery, whereas the control group showed a slight decrease in this measure. Another study conducted by Zheng, Lu, and Gan (2019) consisted of similar measures. In this study, however, there was only one 20-minute writing session. Zheng et al. (2019) have divided their sample into two conditions: the writing about a traumatic event (i.e. the EW condition) and the neutral topic writing (i.e. the control condition). They have reached significant results based on the analyses of the presence of meaning subscale of the Meaning in Life Questionnaire, the Post-Traumatic Growth Inventory (PTGI), and cognitive words in the essays. Specifically, the EW participants had the higher scores both on the presence of meaning and the PTGI than the control ones. While

the experimental conditions did not differ based on their use of causal and insight words, the use of cognitive words was predictor of the presence of meaning which was also a predictor of PTGI scores.

The effects of different instructions on the post-traumatic growth after a trauma were also studied. Ullrich and Lutgendorf (2002) have specifically structured the instructions of the three conditions in order to see whether the writing about both cognitive and emotional aspects of trauma has significantly more benefits for people than both the writing about only emotions related to it and also the writing about the news on the media. They have asked their participants to write at least twice a week for at least 10 minutes over the coming month. The results of this study have showed that positive post-traumatic growth was seen only for the cognition and emotion group while an increase in illness severity was observed only for the emotion only condition. Ullrich and Lutgendorf (2002) have also analyzed the essay contents and found that the increase in the use of cognitive words over the course of writing was related to higher level of post-traumatic growth at the end of the study whereas the increase in the negative emotion word use was associated with the increased illness severity symptoms reported.

One study conducted with a Turkish sample which consisted of spouses of cancer patients (Acar & Dirik, 2018) and has analyzed the effect of the structured instructions on people regarding the post-traumatic growth and PTSD symptoms. The sample was divided into three conditions and asked to write for 15 minutes over the course of four consecutive days. In the negative writing group (NW), participants were asked to write only negative thoughts and emotions related to their spouses' diagnosis whereas the positive writing group (PW) participants wrote about their positive emotions and thoughts about the conditions of their spouses. There was also

a combined writing group (CW) in which participants were asked to write both negative and positive thoughts and emotions about their circumstances. Although at the end of the analysis on the PTSD score changes did not revealed significant results, for the PW and CW groups there was a tendency to decline from the pre-test to the 1-month follow-up. Besides, the results regarding the post-traumatic growth indicated that there was an increase in the scores for each group at the post-test, but that increase did not last until the 1-month follow-up time.

Some cognitive changes have also been reported in the literature. For example, Lepore (1997) has found that even though the participants' actual level of intrusive thoughts about their writing topic might not decrease after EW, the level of disturbance as the result of intrusion has been found to be lower. Another study (Radcliffe, Lumley, Kendall, Stevenson, & Beltran, 2010) has assigned the participants into four conditions. In one of them, EW participants were asked to submit their essays to the researchers whereas in the other EW disclosure condition, participants were not expected to submit theirs. When Radcliffe and her colleagues (2010) have compared these disclosure groups to the combination of the control ones (trivial topic and no-writing conditions), they have reached the result that both disclosure groups had significantly lower levels of intrusion and avoidance at the follow-up assessment ($M = 2.72$ months).

The effects of EW on working memory was studied by Klein and Boals (2001) and they have reported that there was a significant difference between the experimental group who wrote about their experiences of coming to college and the time management control group in the level of working memory improvement at the 7-week follow-up assessment. Specifically, they have asked participants to complete an intrusion and avoidance scale (i.e. Impact of Event Scale- IES) and to describe

one negative and one positive experience on the first day of the experiment. Then, they have assigned participants into three different conditions which were the control group (i.e. time management essays), negative event writing, and positive event writing. They have also applied working memory tasks and compared the groups based on these variables. Results have showed that even though the intrusion and avoidance level of participants decreased for all groups, the most decline, which were statistically significant, was observed for the negative event writing group. Moreover, the negative event group had also demonstrated the highest level of increase in the final working memory scores. These findings are consistent with the cognitive adaptation theory with respect to the assumption that intrusive and avoidant thinking of a negative event have an impact on people's well-being while people trying to match it to their inner cognitive models. Additionally, they have compared the groups with respect to the working memory capacities. The results have demonstrated that EW has had a positive impact on both the final working memory scores and the improvement level of working memory. This effect was prevailing for the participants who had lower level of intrusive and avoidant thoughts at the final session of the experiment. They have interpreted the results as EW being the intervention which redeems the capacity of working memory from intrusive and avoidant thinking. Relatedly, Klein (2002) has summarized the link between the working memory capacity and intrusion of accessible memories in a way that the suppression of those memories consuming the working memory capacity.

Meta-analytic studies, even though they have mostly reached the conclusion that the physiological outcomes had the largest effect sizes, have reported that psychological well-being measure had also small to medium effects. For instance, based on Smyth's study (1998) psychological well-being measures had significant

effect size ($d = .66, p < .0001$). Similarly, Frisina et al. (2004) have documented that whereas EW has been more effective on physiological health outcomes like health care utilization ($d = .21$) than the psychological ones like perceived stress ($d = .07$), they specifically reported that it can also provide improvements in measures like Beck's Depression Inventory ($d = .56$), PANAS-Positive Affect ($d = .55$), and Pittsburg Sleep Quality Index ($d = .68$). The effects of psychological outcomes such as anger, depression, and anxiety scores ($r = .034$) were smaller in the study of Frattaroli (2006). Contrary to these findings, another meta-analysis (Meads, Lyons, & Carroll, 2003) has included 61 studies and concluded that the change in depression levels is equivocal and no significant change exists in anxiety, avoidance and intrusion levels.

It can be concluded that results are more consistent for the physiological outcomes while the psychological outcomes-related ones do not offer a clear-cut conclusion.

1.2.2.2 Populations with trauma histories

Some studies have been conducted to see the effects of the EW intervention on people with specific symptoms and trauma histories. People with PTSD symptoms and/or sexual abuse history were usually the ones selected as studies' samples. A recent meta-analytic study (Pavlicic, Buchanan, Maxwell, Hopke, & Schulenberg, 2019) has included the studies which have the measures of post-traumatic stress, post traumatic growth, and quality of life. Pavlicic et al. (2019) have reported a small effect for post-traumatic stress and negligible size of effect for post-traumatic growth and quality of life outcomes. The overall effect reported at the end of this meta-analysis was small to medium ($d = 0.42$). However, when Pavlicic et al. (2019) have

separated the studies used only the samples consisted of people with PTSD diagnosis from the ones which did not require a diagnosed sample, the overall effect size has become a medium effect (without the outliers detected; $d = 0.52$) for the PTSD sample studies whereas for the others, the overall effect size was a small one ($d = 0.32$). Although Pavlacic et al. (2019) have concluded that the EW intervention is more beneficial for those who experience clinical symptoms of PTSD and there are some studies in line with this conclusion whereas some others have reached different conclusions.

One study (Sloan, Marx, Bovin, Feinstein, & Gallagher, 2012) has been conducted with a sample of people who were diagnosed with motor vehicle accident related- PTSD. There were two conditions one of which was the EW and the other one was the wait list participants. The assessments were done at baseline, 6- and 18 weeks later for both groups, and the 30-week follow-up assessment was only done for the EW group. Sloan et al. (2012) have reported that the EW group showed a significant decline in their severity of the PTSD symptoms relative to the wait list group and fewer number of the participants in the EW group have met the diagnosis criteria at the 6- and 18-week follow-up assessments. Moreover, the decreased level of severity of the symptoms was also observed at the time of 30-week follow-up (Sloan et al., 2012).

Women with childhood sexual abuse history were selected as the sample of their study by Meston, Lorenz, and Stephenson (2013). Meston et al. (2013) have divided their sample into two conditions in one of which women were expected to write about the impact of the abuse on their beliefs, emotions, and thoughts about sexuality (the schema writing condition), and in the other group, participants wrote about their deepest feelings and thoughts about the abuse and its effects on them (the

trauma-focused condition). The total of five writing sessions were set in a way that no one wrote on consecutive days. In this study, there were three follow-up times which were two weeks, one month, and six months after the last writing session. Meston et al. (2013) have reported that each group showed improvements in the depressive symptoms from baseline to post-treatment assessment, but also showed some worsening over follow-up. The effect of condition was observed on the measures of sexual dysfunction. Specifically, Meston et al. (2013) have found that the schema writing condition was related to both the quicker and the higher possibility of recovery from the hypoactive sexual desire disorder (HSDD) and also the female sexual arousal disorder (FSAD) but not from the female orgasm disorder (FOD). On the other hand, Batten, Follette, Hall, and Palm (2002) have reached different results. Batten et al. (2002) have also used a sample of women with childhood sexual abuse history and included outcome measures other than sexuality. The results showed the effects of EW as being a slight increase in physical symptoms for the experimental group who wrote about the abuse and also a slight decrease for the control group from the baseline assessment to the 12-week follow-up time (Batten et al., 2002). Some other negative effects of EW intervention on trauma survivors have also been found by others. For instance, Gidron, Peri, Connolly, and Shalev (1996) have studied EW's effects on trauma survivors. They randomly assigned people into two conditions: the EW and the daily routine control. They asked them to write for 20 minutes for three consecutive days. At the 5-week follow-up assessment, the EW group had shown increases in their level of avoidance symptoms and health center visits.

1.2.3 Individual differences

Considering the contradictory findings, the question that for whom EW provides benefits has become a crucial point of the paradigm. For searching for answers to that question, even though there are limited number of studies, individual differences such as negative affectivity, gender, emotionality level of people, alexithymia, and some tendencies like rumination have been examined.

Negative affectivity (NA) is conceptualized by Watson and Clark (1984) as being related to different aspects of people's functioning. Specifically, they have mentioned that NA is effective in mood, adjustment, and psychopathology. As a general tendency of NA, they have stated that "... includes such affective states as anger, scorn, revulsion, guilt, self-dissatisfaction, a sense of rejection, and, to some extent, sadness. In contrast, NA is unrelated to an individual's experience of the positive emotions; that is, a high-NA level does not necessarily imply a lack of joy, excitement, or enthusiasm. Fearfulness also seems to be an unrelated disposition." (p. 465). They have also added the view that not only high-NA people react to the stressful situation more intensely than the low ones, but they also experience more negative affect even in the absence of any stressor as well as they are being more susceptible about the daily life struggles like frustration and failure. On the other hand, although Watson and Clark (1984) have defined people low on NA as being "better able to put unpleasant experiences out of mind" (p. 466), they have also warned about extreme scores potentially hindering reality check.

Negative affectivity has been thought of as a potential individual difference that influences the benefits of EW paradigm. For instance, Hoyt and Yeater (2011) have specifically targeted the role of affectivity within the EW paradigm. In that study, participants were divided into two negative affectivity groups (i.e. high and

low negative affectivity) before the writing sessions and then those groups assigned into the three conditions which were the EW (i.e. writing about a traumatic event), the active control (i.e. writing about traumatic event without any emotions), and the trivial topic control groups. The results revealed that only the participants high in negative affectivity who were assigned to the EW condition decreased in their level of post-traumatic symptoms and the conclusion derived from that result was that the efficacy of the EW intervention on post traumatic symptomatology might be moderated more by affectivity of people rather than modifications in the instructions. Relatedly, but contradictorily, Zakowski, Herzer, Barrett, Milligan, and Beckman (2011) have conducted a study with gynecological cancer patients. They have used the term “Neuroticism” in their study and concluded that the people high on neuroticism did not get benefit from the EW intervention rather they showed an increase in their distress scores at the 6-month follow-up assessment. However, the difference in the sample characteristics of these two studies (i.e. Hoyt & Yeater, 2011, and Zakowski et al., 2011) should be kept in mind while considering the effects of affectivity on the impact of EW intervention.

NA is a trait that impacts individual’s life in so many ways even though it has been considered as being unrelated to outcomes in EW paradigm like age and gender (e.g. Baiki & Wilhelm, 2005; Pennebaker, 1997; Pennebaker & Chung, 2011). Relatedly, one study (Pennebaker et al., 1990) has divided the sample based on negative affectivity levels of the participants (i.e. college students) and found that each group showed a decrease in their illness visits rates after the EW intervention required them to write about either the experience of coming to college or trivial topic for 20 minutes on three days.

Gender difference is also one of the examined concepts that was assumed as having potential to provide some explanation to the contradictory findings. For instance, Smyth (1998) has concluded in his meta-analysis that men benefit more from EW with respect to the finding that the proportion of the male participants was significantly in a positive relation with the overall effect size of the studies. On the other hand, Pennebaker and his colleagues (1990) have found that females showed more decreases in their health center visits than males after writing intervention. Conclusion that the effect of gender and some other dynamics like age has been offered, for instance by Pennebaker and Chung (2011), just as being promising rather than being definite.

The effect of ruminative tendency has also been studied under the EW paradigm. For instance, one specific study (Sloan, Marx, Epstein, & Dobbs, 2008) has examined the effects of rumination on the efficacy of EW intervention. They have found that people with brooding tendency, which is considered as a maladaptive ruminative thinking style, have benefited from EW intervention with respect to the decrease in their depression levels whereas this decrease has not been observed for the ones with pondering style of thinking which is a more adaptive type of rumination. Similarly, Gortner, Rude, and Pennebaker (2006) have examined the mediating effect of rumination, specifically the brooding type. They have found that the positive impact of the EW intervention on the depressive symptoms observed at the 6-month follow-up assessment was only for the high suppressor participants and that effect was mediated by the difference in the brooding scores of those people.

Emotionality level of people was also studied by Wong and Rochlen (2009) with a sample of male college students with differing levels of restricted emotionality. In this study, the experimental group, who wrote about possible

differences in their lives if they had the most ideal emotional connectedness with someone for 20 minutes on three days, significantly decreased their levels of psychological distress (i.e. depression, anxiety, and somatization scores) at the 4-week follow-up assessment. However, the study's prediction that the men who had highly restricted emotionality would be the most benefited ones from EW could not be supported by the results. Niles, Haltom, Mulvenna, Lieberman, and Stanton (2014) have conducted a study in order to examine the role of emotional expressivity in the EW paradigm. Niles et al. (2014) have reached the conclusion that emotional expressivity moderated the effect on anxiety in a way that participants in the EW group who were high in emotional expressivity were the ones who had a significant decrease in their anxiety levels at the 3-month follow-up assessment whereas the people low on expressivity within the same group showed an increase in their anxiety levels within the same period of time.

Some other characteristic features have also been studied. For example, one specific study (Baikie, 2008) has concluded that EW intervention is beneficial especially both for alexithymic individuals and splitters. Baikie (2008) has argued this results from a perspective that EW is a beneficial way for those people because it provides them a safe way to express their emotions in a way that they can control how much they share and/or basically, how they share. However, Lumley (2004) has suggested an opposite idea derived from his studies that alexithymics are possibly not able to obtain beneficial results of EW. He interpreted the results of his studies as alexithymics might experience difficulties to determine the emotional topic they would write, and/or they also might not be able to write about internal processes because of their focus on the external.

1.2.4 Benefits of processing loss with EW

Based on the idea that loss needs some time to be processed and the EW intervention gives people opportunity for processing, some studies have studied different types of loss under the EW paradigm. Results showed some significant impacts of EW intervention on loss processing.

Considering loss of health, there are some studies that required participants to write about their diagnoses in order to examine the effects of EW intervention on symptoms specific to the disease in question. For instance, people diagnosed with irritable bowel syndrome were studied by Halpert, Rybin, and Doros (2010) and it was found that the experimental group who wrote about their disease for 30 minutes over 4 consecutive days showed a decrease in their disease severity. Rosenberg et al. (2002) have also conducted an EW study with men with prostate cancer. Results showed that patients in the experimental group in which people wrote about their disease resulted in decreased level of physical pain, reduced drug use, and lower level of health care utilization. In some other studies, women with breast cancer were chosen as the sample and it was found that they benefitted from the EW intervention (e.g. Creswell et al., 2007; Henry, Schlegel, Talley, Molix, & Bettencourt, 2010). Adjustment to being HIV- positive was also examined by the EW paradigm (Rivkin, Gustafson, Weingarten, & Chin, 2006). In their study, Rivkin and her colleagues (2006) asked their participants in the EW group to write about their conditions for 20 minutes once at the baseline assessment and also in diary format once a week for next three weeks at home. They have also collected samples of beta2-microglobulin (B2-M) which is related to the course of disease in a way that lower the B2-M slower the course. Although they have failed to find any significant effect of condition, when the researchers analyzed the essays, they have reached the conclusion that

participants who increased in their use of cognitive words and social concepts had the better immune function and reported more positive change at the follow-up.

Loss of a loved one has also been studied via the EW paradigm. Pennebaker, Mayne, and Francis (1997) have chosen the caregivers whose spouses died due to AIDS even though the mode of disclosure was vocal interviews, the analysis was done by transcriptions of those recordings. Pennebaker and his colleagues (1997) have reported that the increased cognitive change was marginally related to the decrease in the rumination level one year after the study. There is also another EW study which selected the sample from bereaved individuals; but the intervention was consisted of only one day workshop in which the writing sessions were separated by brief coffee breaks or lunch (O'Connor, Nikoletti, Kristjanson, Loh, & Willcock, 2003). O'Connor et al. (2003) have had two follow-up assessments one of which was after 2 weeks and the other one was 8 weeks after the writing workshop. At the end, they have reported null findings for the grief and psychological health outcomes. However, they have also mentioned that although the effect failed to reach significance level, there was a trend towards increase in self-care for the intervention group. They have interpreted the null findings as being related to the duration of the intervention with respect to the view that the adaptation process needs more time than one day. However, Stroebe, Stroebe, Schut, Zech, and van den Bout (2002) have also reached similar conclusion (i.e. null findings) despite the fact that they have conducted their study as having more than one session; specifically, they had 7-day diary writing procedure. Given the null findings of the effects of the EW intervention on the case of loss of a loved one, recently, Savitri, Takwin, Ariyanto, and Aribowo (2019) have conducted a study with the structured the instruction for bereaved individuals who lost their parents more than six months ago. In their study Savitri et

al. (2019) have asked their participants to write either about their loss or about daily routines for 15 minutes over three consecutive days. They have designed the writing instructions in a way that for the first day, the EW group wrote their thoughts and emotions related to the loss while they wrote about the relationship and/or work life related changes in their lives on the second day. The third and the last day's instruction asked the EW group to write using different perspectives than they have already written or thought about until that day. The results have revealed that there was a significant decrease in the grief levels of the EW group from pre- to post-test assessment but not in the control group and the EW group had also lower level of grieving at the post-test than the control group participants. Lichtenthal and Cruess (2010) have also analyzed the effect of structured instruction by dividing their bereaved university student sample into four different conditions and also looked both at the post-experiment change and also at the longer-term effects by a 3-month follow-up assessment. The conditions of this study were the making sense of the loss (SM), the positive changes came with the loss (BF), the unmodified traditional EW, and the trivial topic control writing (i.e. description of the room) conditions. The participants wrote three times for 20 minutes over one week. Lichtenthal and Cruess (2010) have reported that except the control group, all writing groups decreased in their scores on prolonged grief symptoms, depression, and PTSD symptoms. Although it did not reach significance level, the most change was observed for the BF group. Lichtenthal and Cruess (2010) have discussed that majority of their sample (74%) lost some one at least one year ago, and the reinforcement of meaning making (i.e. SM instruction) is expected to be more beneficial for people who experience more recent losses.

Specific ways of losing someone have also been studied. Specifically, Kovac and Range (2000) have conducted an EW study with a sample of college students who lost a loved one in the past two years by suicide. As the intervention, they have asked participants to write four times over the course of two weeks. The instructions were about the loss and the related events and emotions for the EW group, and there was also a trivial topic writing control group. Kovac and Range (2000) have measured the suicide-related grief symptoms and the general grief ones with separate measures and they have found that the EW group had lower level of grief related to suicide at the 6-week follow-up assessment than the control ones even though that beneficial effect was not observed for the general grief symptoms and remained within the scope of suicide related grief symptoms. Range, Kovac, and Marion (2000) have also conducted a study with a sample of bereaved college students who lost a loved one due to an accident or homicide. They have reported that the EW group who wrote about their loss did not significantly differ from the trivial topic control group on any outcome measures at the 6-week follow-up assessment. Range et al. (2000) have combined the results of this study with the results of the previously mentioned study of Kovac and Range (2000) and concluded that the EW intervention is beneficial for people who experienced certain type of loss like suicide.

Sbarra, Boals, Mason, Larson, and Mehl (2013) have examined the EW impact in the cases of the loss of a significant relationship with their sample of people who were going through a period of marital separation. There were one control writing condition and two EW groups in their study one of which was the traditional EW whereas the narrative-based EW group was another one. They have found that highly ruminative people within the EW groups had significantly higher levels of emotional disturbance assessed by the Impact of Event Scale- Revised (IES-R) whereas people

with lower levels of ruminative tendency did not differ across conditions at the 3-month follow-up assessment. At the 8-month follow-up assessment, Sbarra et al. (2013) have reported that the IES-R scores of the EW groups did not differ significantly from each other with respect to the rumination levels while people with high level rumination within the control group reported less emotional distress than the low ruminative ones. They have concluded that people who were trying to find meaning from their separation and with high level of rumination tendency were the ones who reported more separation-related distress than the ones in the control group. Lepore and Greenberg (2002) have also conducted a study in order to examine the effects of EW with participants going through romantic relationship break-ups. Lepore and Greenberg (2002) have divided their sample into groups based on the participants' baseline intrusion and avoidance levels before running any analyses. The results showed that whereas the experimental group participants who were high on intrusion and avoidance measures have no change in their upper respiratory symptoms, the ones in the control group had increased symptoms. They have concluded that EW has mitigated the effects of high levels of intrusion and avoidance on the upper respiratory symptoms.

Boals and Klein (2005) have selected a sample of college students who also experienced a romantic relationship break-up in the last 12 months. Although this study required the participants to write only once, the results revealed significant information about processing of loss of a relationship based on the word categories analysis. Boals and Klein (2005) have asked their participants to mark the parts in their essays based on whether the part was referring the period before the break-up, or the post break-up time. By dividing the essays, Boals and Klein (2005) have aimed to understand the variations in word use when people write about the events

related to different level of stress. They have also measured the level of intrusion, avoidance, and grief symptoms of participants. The results have showed that people used more cognitive words, emotion words, sensory, and present tense words when they wrote about the break-up period. Besides, Boals and Klein (2005) have reported that people with higher level of avoidance used more negative emotion words, both first-person singular and third-person, and less cognitive words while higher level of grief was also found to be related to use more causal words, first-person singular, present tense, and less of past tense at the break-up parts of the essays. Boals and Klein (2005) have argued that the positive relation between the grief levels and the percentage of causal words in the essays is the manifestation of the process of search for meaning of the break-up whereas the negative relationship between the avoidance and the use of cognitive words suggests the absence of this process in the cases of avoidance.

Dunnack and Park (2009) have also examined the thought processes during the period of adjustment to loss by looking at the pronoun switches in the written essays. They have expected that both first- and third-person singular pronoun use would be associated with poor adjustment. However, the results of their study have showed that the first-person pronoun use was related to poor adjustment only at baseline. When Dunnack and Park (2009) used difference scores and analyzed the effect of change in the use of the first-person pronoun, they have reached a conclusion different from the previous research which showed that the use of I was related to poor adjustment (e.g. Boals & Klein, 2005). Dunnack and Park (2009) have stated that the first-person singular pronoun refers to self-focus which reinforces a connection to traumatic loss and enables grieving people to see and understand how the trauma has affected them. Therefore, the result of this study was considered to be

associated with this view in a way that the first-person singular pronoun use was related to poor adjustment only at the time before the EW intervention. Dunnack and Park (2009) have also discussed that the correlation between the increased I use and the cognitive words found has indicated that when people focused on themselves and the effects of loss in their lives, they had the chance both to elaborate what had happen and to understand the loss as well as to reintegrate. As a result of this process, their experiences have become less stressful and that was why people have showed better adjustment at the post-experiment assessment (Dunnack & Park, 2009).

1.3 Procedural differences on EW studies

1.3.1 Instructions

The common writing instruction for the EW conditions in the studies has been the variations of the following one:

For the next 3 days, I would like for you to write about your very deepest thoughts and feeling about an extremely important emotional issue that has affected you and your life. In your writing I'd like you to really let go and explore your very deepest emotions and thoughts You might use your topic to your relationships with others including parents, lovers, friends, or relative to your past your present or your future or to who you have been, who you would like to be or who you are now. You may write about the same general issues or experiences on all days of writing or on different topics each day. All of your writing will be completely confidential. Don't worry about spelling, sentence structure, or grammar. The only rule is that once you begin writing, continue to do so until your time is up (Pennebaker, 1997, p. 162).

The differences between instructions have been analyzed in order to assess whether any specific way of constructing them has influences on outcomes and effect sizes of studies. One of the most comprehensive meta-analyses (Frattaroli, 2006) has found that the existence of the specified examples and questions in the instructions have moderated both the overall effect and the psychological health outcomes' effect sizes in a positive way (marginally for the overall effect size; significantly for the

psychological health outcomes). In other words, when participants were explained what kind of information was wanted by giving examples, and asking potential questions required answers, the effects could be higher.

Additionally, EW studies might allow the participants to switch topics between or within sessions. This option has also been analyzed by Frattaroli (2006). It has been found that although whether the participants have chosen to switch their topics does not cause significant changes in the studies' overall or specific outcome measures' effect sizes, giving this option specifically in the instructions provides marginal improvements on psychological health effect sizes. One unpublished study (Frattaroli, 2001; as cited in Frattaroli, 2006) analyzed directly the effect of specific mentioning switching in the writing instruction. It has been reported that the group received the certain instruction about switching had much improved in analytical thinking than the other group that did not get any information on whether to switch topic or not.

1.3.2 Topic

Pennebaker (2004) has recommended that people should write about the issues which continue to bother them rather than writing about things that they no longer think about. He offers that when people write about their traumatic experiences, the event bothers them to a lesser degree. This suggestion of his might be linked to the idea that EW is a beneficial intervention and why not to use it for a more urgent, necessary, and influential matter for daily functioning life. Relatedly, Smyth (1998) has concluded that the studies which required the participants to write about current traumas, had higher mean effects sizes on the psychological well-being outcomes.

Pennebaker (2004) also suggests that the recency of the traumatic event is crucial. More specifically, if the event has happened in last few days or occasionally in last few weeks or months, EW would not be beneficial. He has linked this with the effects of trauma on people. He explains this link by saying that “Depending on the severity of the trauma, people are often distorted in the first one to three weeks after its occurrence. If you feel as though you are still reeling from a traumatic experience, then it is probably too early to start serious writing” (Pennebaker, 2004, p. 11). However, based on the meta-analysis done by Frattaroli (2006), although the studies that had the participants who wrote more about recent events in their lives, there was no significant difference between the effect sizes of studies required participants to write about their current issues and the ones not specified the recency of the experience. Relatedly, the topic choice right at the beginning of the studies has also been analyzed. For example, giving participants the freedom of choice about what to write is considered to have the possibility of increasing the likelihood of finding an effect (Zachariae & Jensen-Johansen, 2011).

Greenberg and Stone (1992) have also evaluated the trauma severity as a topic-related variation. They have divided the essays based on the participants’ subjective ratings on severity of the written trauma. They reported that between the severe, non-severe, and control groups, the long-term effects of EW intervention were prominent, especially for self-reported symptoms. The severe group has had significantly lower symptoms than the non-severe one, and marginally lower than the controls at the time of 2-month follow-up assessment while no significant difference were observed between the non-severe group and controls.

1.3.3 Writing sessions

There has been a theoretical discussion on how many sessions might be necessary to get positive results. One accepted idea is that three to five times of writing could be enough in order to avoid further rumination caused by EW (Kacewicz, Slatcher, & Pennebaker, 2007). Although there have been some studies conducted as having only one writing session (e.g. Cohen, Sander, Slavin, & Lumley, 2008; Greenberg et al., 1996), the studies with at least three sessions have been found to be having more positive effects on the effect sizes of both overall and psychological health as well as the subjective impact of the intervention (Frattaroli, 2006). For example, Cohen et al. (2008) have found that there was a trend towards increase in avoidance for people who were highly distressed at the beginning of a single 30-minute EW session. Cohen and his colleagues (2008) have also commented that those people may have needed more than one session because they were more activated in only one session.

Another discussion is about the length of the writing session. In accordance with the literature in which there have been studies with sessions lasting from 10 (e.g. Alexander-Emery, Cohen, & Prensky, 2005) to 30 minutes (e.g. Slavin-Spenney, Cohen, Oberleitner, & Lumley, 2011), meta-analytic findings suggest that when the sessions are at least 15 minutes, the effect sizes become larger (Frattaroli, 2006).

The time between sessions also differs from study to study. For instance, in general most studies conduct the experiments on consecutive days (e.g. Pennebaker et al., 1988; Donnelly & Murray, 1991). Although Frattaroli's (2006) meta-analytic findings have concluded that spacing the writing sessions had not caused significant changes in effect sizes, Smyth (1998) has found that time between sessions has a significantly positive relationship with the overall effect size. One study (Chung & Pennebaker, 2008) was conducted with three writing sessions in three conditions:

writing sessions separated by 10-min breaks (1-hour cond.), separated by 35-min breaks between sessions (3-hour cond.), or 24-hour breaks (3-day cond.). Whereas the 1-hour condition got physical health benefits comparable to the ones belonged to the 3-day participants, the effects of 3-hour group have failed to reach significance level at each assessment time (i.e. 1- and 9-month follow-up assessments). Based on the participants' perceptions regarding the intervention being helpful and valuable, it was concluded that three writing sessions within three hours should not have been used.

1.3.4 Mode of disclosure

The modes of disclosure could be handwriting (e.g. Chung & Pennebaker, 2008), typing on a computer (e.g. Fernández, Páez, & Pennebaker, 2009), or talking into a tape recorder (e.g. Slavin-Spenney et al., 2011). Meta-analytic study conducted by Frattaroli (2006) failed to find any significant difference between the modalities of disclosure with respect to the effect sizes.

1.3.5 Audience of disclosure

The usual procedure of EW requires that the participants hand in the essays at the end of each writing session. Radcliffe et al. (2010) looked at the effect of turning in the essays by comparing the benefits of EW across two types of disclosure group which were the shared disclosure and the private disclosure groups. They have found that participants who gave their essays (the shared disclosure group) had a significantly lower level of depression and interpersonal sensitivity than who kept their essays to themselves (the private disclosure group).

Contradictory to the study above, according to the meta-analytic finding (Frattaroli, 2006), it has been reported that higher psychological health effect size has been found for the studies in which participants have not handed their essays. However, Frattaroli (2006) has also mentioned that the studies that did not collect the essays were the studies conducted at home-setting and that setting was also a moderator of the effect sizes.

1.3.6 The settings of disclosure

The EW studies vary among themselves based on their choice of setting. For instance, some studies have been conducted in laboratories (e.g. Pennebaker et al., 1988) and some others have asked their participants to write at their own homes (e.g. Gidron et al., 2002). Frattaroli (2006) has concluded that studies conducted at homes had much higher effect sizes ($r = .122$) than the ones in labs ($r = .034$). As an additional finding of this meta-analysis, it has been specified that the privacy of participants provided an increase in both the overall (private room, $r = .085$; with other participants, $r = .034$) and the psychological health effect sizes (private room, $r = .069$; with other participants, $r = .028$).

1.3.7 Time of the follow-up assessment

The follow-up assessments of EW studies vary from one day (Booth, Petrie, & Pennebaker, 1997) to 15 months (Gidron et al., 2002). The result of a meta-analysis (Frattaroli, 2006) suggests that studies with the follow-ups less than one month after the experiment have larger effect sizes on the psychological health outcomes. In addition to this, Pennebaker and Chung (2011) argued about the timing of follow-up assessment by saying that some changes on physical and psychological health might

be observed immediately after EW intervention and may not last long whereas some of those changes may also appear many months and/or years later. They also mentioned that sample characteristics should be considered as an important point in the process of setting the time for the follow-up assessment. They have specifically given the study with the patients of asthma and rheumatoid arthritis (Smyth et al., 1999) as an example of observing benefits of EW at different times. In their study, Smyth et al. (1999) have found that whereas the improvements in asthma symptoms were seen after only two weeks, people with rheumatoid arthritis diagnosis showed no change until four months later. As a result of all these different dynamics, it is offered that depending on both the sample and the time processes of the outcomes determined for the study, researcher should establish the follow-up assessments' timing.

One of the meta-analyses (Meads et al., 2003) has reported that the follow-up assessments of different outcomes had varied. They have included 61 studies which were randomized control trials both with written and/or verbal disclosure (i.e. without any listener) conditions and conducted with any populations. Specifically, the follow-up assessment for physiological and immunological outcomes is between one week and six months; for the physical health ones, the period varies from one to five months; the assessment of performance is between six weeks and eight months; and the follow-up evaluation for the psychological outcomes differs from one month to seven months.

1.4 Content analysis of the essays

Language is the way for people in order to turn their inner world into a communicable way by which people tell each other how frustrated they were, how

happy they were with one another, how angry they were when they faced with an obstacle, and so on. These all are about their personal experiences, which at times very similar to one another; however, how people express those experiences differs from person to person. This variation was linked to people's experiences of EW interventions and the differences in the essays has become the focus of the research.

1.4.1 Ways to analyze language

Over the course of EW studies, different methods for analyzing the dimensions of language have been used. According to some views on language analysis, the meaning of a word is context specific; therefore, it can only be evaluated by considering both the context and communicators (Pennebaker, Mehl, & Niederhoffer, 2003). However, there are different ways that researchers have chosen for studying language dimensions. For instance, some studies assigned judges to look at the essays (e.g. Pennebaker et al., 1988) or the transcriptions of interviews (e.g. Pennebaker et al., 1987) while some others used either only the technique based on counting and statistically analyzing the words in their data (e.g. Cohn, Mehl, & Pennebaker, 2004) or combined both qualitative and quantitative ways for analysis of texts (e.g. Graybeal et al., 2002). In general, there are methods that approach language in different ways such as judges' content analysis, word pattern analysis, and word count strategies (for review, Pennebaker et al., 2003; Tausczik & Pennebaker, 2010).

1.4.2 Linguistic inquiry and word count (LIWC)

The more efficient way of analyzing words than judges' evaluations was needed (Tausczik & Pennebaker, 2010). The reasons behind this view have been reported as

being related to the agreement rates among judges, the procedure being expensive and slow, and judges became depressed after reading all essays. The first version of LIWC (Pennebaker, Francis, & Booth, 2001) has been developed to see the hallmarks of writing which are connected to the positive health outcomes (Pennebaker et al., 2003).

Specifically, the program analyzes some basic linguistic dimensions such as pronouns, articles, and adverbs (Tausczik & Pennebaker, 2010). These dimensions can be divided into two categories: content and function (i.e. style) words. The content words are basically nouns, verbs, and some adjectives and adverbs. These words are related to action, characters, and some other specific properties of a story (Pennebaker, 2007). The function words, on the other hand, are the glue for the content words. They are pronouns, prepositions, common adverbs, articles, auxiliary verbs, and conjunctions; all of which make connections between different content words and these words are the ones that show us how people connect to their world and communicate with each other (Pennebaker, 2007).

The first version of LIWC had consisted of psychological theories-related words like positive and negative emotion words, and cognitive words. For instance, the words “happy” and “sad” are part of the positive and negative emotion word categories, respectively while “cause” is considered as a cognitive word. As time goes by, the program has evolved into being flexible by having the option for creating user-defined dictionaries (Pennebaker et al., 2003).

In a general way, the program analyzes essays in 2 steps which are the scanning each word at the first step and then matching each word with the related categories (Tausczik & Pennebaker, 2010). LIWC has a hierarchical organization of dictionaries which means that one word can be assigned into different categories

(Pennebaker et al., 2003). For example, the word “laughed” would be in the positive emotion, the general affect, and the past tense categories. After comparing each word in a text with the categories in the dictionaries, LIWC provides percentages of the word used in each category.

1.4.3 Some indications of language dimensions

Different dimensions have been studied for varying reasons. One of the most prominent goal has been understanding the psychological processes behind the word choices of people. EW studies have focused on different word categories such as pronouns, emotion words, and cognitive words in order to identify specific psychological processes.

1.4.3.1 Pronoun use

Different pronouns are considered to be related to different processes. For example, Davis and Brock (1975) have conducted an experiment that led them to conclude that people, who focus their attention on themselves, used more first-person pronouns. Additionally, the high use of the first-person singular pronoun has been associated with being young or being depressed (Cohn et al., 2004) and higher levels of grief and avoidance of thoughts related to loss of a relationship (Boals & Klein, 2005). In another study (Zimmerman, Wolf, Bock, Peham, & Benecke, 2013), a positive relation was found between the scores in Beck’s Depression Inventory and the first-person singular pronoun use.

More specifically, different classifications of the first-person singular pronoun have been determined as subjective (I), objective (me), and possessive (my) pronouns (Tackman et al., 2018). Tackman and her colleagues (2018) have analyzed

11 different samples in order to define specifying aspects of the first-person singular pronoun use in different contexts. They have found that the association between depression and different types of first-person singular pronouns depended on the contexts of language. The prominent finding of their analysis is the positive correlation between the I-talk and negative emotionality in all contexts. Even when they controlled for depression, the relationship between I-talk and negative emotionality remained. As a more general conclusion of their analysis, they have offered that I-talk is related to general stress proneness rather than being limited only to depression. An additional suggestion has come from Zimmerman and his colleagues (2013). They have found that whereas high use of the first-person singular pronoun was associated both with high level of interpersonal distress and with an intrusive interpersonal style, the use of the first-person plural (we) was related to low levels of interpersonal distress, and, on the other hand, a cold interpersonal style. Relatedly, they have concluded that self-referencing language has implications not only about general interpersonal distress and depression but also about interpersonal styles of people.

A critical finding related to the relationship between depression and the first-person pronoun use has been observed. Rude, Gortner, and Pennebaker (2004) have conducted a study in order to see this relationship among college students. They have divided the participants into three groups based on their depression status. One of them had consisted of the never depressed people whereas in the other one there were formerly depressed participants. The last group included the participants who were currently depressed. All groups wrote one essay in 20 minutes about their experiences of being in college. The examination of the difference between the currently depressed group and the never depressed group has revealed that the former

one used significantly more first-person singular pronouns (i.e. I, my, me). Further examinations have revealed that all of the effects were carried by the use of *I* and no relationship was found between depression and the use of *me* or *my*. Rude and her colleagues (2004) have discussed that the use of *me* as an object implies a relationship with outside world whereas the use of *I* can be linked only to the person in solitude.

Additionally, the use of different pronouns has been studied as possible personality markers and individual differences. For instance, Mehl, Gosling, and Pennebaker (2006) have concluded that agreeableness is positively related to the use of first-person singular pronoun while the second-person pronouns are positively related to conscientiousness in men, and negatively in women. They have also found a negative correlation between the use of third-person pronouns and people's levels of openness to experience. Another study (Pennebaker & Stone, 2003) has analyzed 45 different studies with over 3000 participants. This study has reached the conclusions that the use of pronouns decreases with aging except the related finding that the use of "we" was highest among the people over the age of 70.

In addition to these findings, pronouns have been studied under the concept of perspective switching. As a general approach, looking at oneself and personal issues from a different perspective is considered to be related to better understanding (Pennebaker & Chung, 2011). Perspective switching in EW studies and analysis of pronouns are associated with better outcomes. For example, people whose use of pronouns differs more from day to day over the course of writing sessions get more benefits from the experience of writing (Campbell & Pennebaker, 2003). The critical conclusion derived based on this finding is that benefits are due to not only the change from self-referential use of pronouns to the other-focused language but also

the other way around is also beneficial. In other words, it is the effect of the change, not the direction of change (Ramírez-Esparza & Pennebaker, 2006).

Seih, Lin, Huang, Peng, and Huang (2008) used psychological displacement diary-writing paradigm (PDDP). This paradigm instructs people to write about the same event using the first-person pronouns, the second-person pronouns, and the third-person pronouns for three consecutive days, respectively. Namely, instructing people to use different pronouns in different days while they are writing about the same experience in each day. Jin (2005; as cited in Seih et al., 2008) has found that when people used the first-person pronouns, they would disclose personal feelings. Besides, at the times they used the second-person pronouns, they would get into dialogues with a supportive partner who is actually themselves. For the third-person pronoun usage, the same study concluded that when people wrote in the third-person perspective, their writings would be perceived as more objective and rational. This process of change in psychological distance is called “psychological displacement” and considered as taking people to a point at which they can be objective and rational about their emotional experiences.

By using PDDP, Seih and his colleagues (2008) recruited volunteers from university population and asked them to keep diaries for 10 consecutive days. Then they analyzed 40 diaries with content coding done by raters, and the average inter-rater reliability was found to be .62 for the features of each phases of PDDP (i.e. self-disclosure, self-support, and objective description). These features of each day were found to be significant predictors of life satisfaction. Besides, they also divided participants into three groups (high, moderate, and low) based on their anxiety scores pre-writing which was measured by an emotional scale. They concluded that the highly anxious group benefitted more than the other groups in terms of significant

change in anxiety and a marginal one in anger levels at the one-week follow-up assessment.

Additionally, another more recent study (Seih, Chung, & Pennebaker, 2011) has also examined the effects of both perspective switching and perspective taking. In the perspective taking part of the study, participants were assigned into three different groups and asked to write from either first-, second- or third-person perspective on three times for five minutes separated by 3-minute breaks. For the perspective switching part, participants were asked to write about the same topic from the first-person perspective in the first writing session, from the second-person perspective in the second session, and the third-person perspective in the third session. When these two parts were compared, it was found that perspective switching was related to the use of more cognitive words than perspective taking, meaning that cognitive processing is fostered by switching.

In their two longitudinal studies, Park, Ayduk, and Kross (2016) have examined the impact of EW in the process of meaning making which is considered to be reinforced by self-distancing. As the conclusion of the combination of their studies, Park et al. (2016) have stated that

“... expressive writing reduced physical symptoms indirectly through its effects on self-distancing and emotional reactivity [that is, expressive writing group (vs. comparison groups) → greater self-distancing → less emotional reactivity → fewer physical symptoms]. Finally, linguistic analyses using essays from both studies indicated that increased use of causation words and decreased use of negative emotion words and first-person singular pronouns predicted increases in self-distancing over time.” (p. abstract)

Boals (2012) has specifically examined the meaning making and the benefits of the EW intervention. Boals (2012) has used two ways to operationalize meaning making: 1) judges' ratings, and 2) use of cognitive words analyzed by LIWC. The results of the analyses have shown that people who wrote about highly stressful

experience and increased in their meaning making across sessions had the lower level of intrusion. On the other hand, for people who wrote about less stressful event, the increase in the meaning making was found to be related to higher level of intrusive thoughts (Boals, 2012).

1.4.3.2 Emotion words

The use of emotion words in the disclosure essays is another important aspect which can be analyzed by LIWC. As a general conclusion, it is proposed that in general the greater use of positive emotion words and the moderate level of negative emotions are associated with the most profound benefits (Pennebaker, 1997/2003; Pennebaker & Chung, 2011; Pennebaker et al., 1997). In addition to this generalization, there are some trends related to differences among studies. For instance, when people get older, they use higher level of positive emotion words and lower level of negative ones (Pennebaker et al., 2003). Besides, while depressed participants used more negative affect words and marginally fewer positive emotion words, the participants who were formerly or never depressed did not differ with respect to their use of affect words from each other (Rude et al., 2004). Another finding related to emotion words is that in adaptive bereavement, over the course of expressive writing sessions, people increased in their use of positive emotion words (Pennebaker et al., 1997).

1.4.3.3 Cognitive words

Processing an event or situation over the course of several expressive writing sessions can cause a change in the degree to use cognitive words, especially the causal and insight ones which are considered to be related to “the active process of reappraisal” (Tausczik & Pennebaker, 2010, pg. 35). According to Boals and Klein

(2005), causal words are used more in the more traumatic contexts. They have reasoned that causal words are needed while people are trying to organize their thoughts and to find some explanations for their traumatic experiences. However, while the exact number of these words has not been found to be related to the improvements, the important criterion is the tendency that the more increase in the use of cognitive words over the course of sessions, the more people get benefits from EW (Hemenover, 2003; Pennebaker et al., 1997; Ramírez-Esparza & Pennebaker, 2006). Therefore, most of the EW studies examine the change of cognitive words use across sessions by usually comparing the first day to the last one. For example, one study (Kovac & Range, 2002) has been conducted to see the effect of reinforcing cognitive processing by structured instructions on suicidality of college students. They have assigned the participants into three groups which were the cognitive change, the exposure, and the control groups. As the result of their study, Kovac and Range (2002) have reported that even though there was no change on suicidality levels, the level of automatic negative thoughts decreased over two weeks for all three groups and the use of insight words increased from the first day to the last one. They have concluded that the experience of writing itself as a process was the efficient dynamic of reinforcing insight without any significant effect of different instructions.

Regarding specifically the insight words, Hemenover (2003) has also found that for the participants in the trauma condition, increased use of these words had the prediction power for the post-test autonomy, which was operationalized as “feelings of self-determination, inward self-regulation and evaluation, and independence of social pressures to think and act in certain ways” (p. 1238) while for the control participants, it predicted greater interpersonal sensitivity.

Different procedures, selection of different measures, and especially the analysis of language have contributed into the search for answers to the questions like why the EW intervention works and for whom, if it works at all.

1.5 Theories on why it works

The starting point of the EW paradigm has its roots based on the view that inhibiting thoughts and emotions related to a negative life experience puts cumulative stress on the body (Pennebaker & Susman, 1988). Although earlier studies with beneficial physical health results have supported this inhibition link, studies with different outcomes and procedures have added varying dynamics into the EW paradigm other than inhibition and the inhibition theory has become short of explaining all of the EW's effects on people. Especially, for example, after the language analysis techniques have been developed, the differences in processing traumatic experiences among people have become observable, even quantitatively. The effects of EW have been considered as being related more to the processing differences among people rather than simply expressing inhibited emotions. Based on this view, researchers have offered other theories such as emotional exposure, social sharing, and cognitive processing theories. It must be said that not one theory can perfectly explain how and why EW works. Probably, all aspects work together and make EW paradigm more complex to solve in a way that EW has effects on people on different aspects of well-being like psychological, physical, and social (Pennebaker, 2004).

1.5.1 Inhibition theory

The inhibition theory is the first one offered, and the theory has assumed that constant inhibition of traumatic events and related emotions cause cumulative stress

on the individuals' bodies (Pennebaker & Susman, 1988). The EW has been considered to be a way of surfacing the inhibited emotions and removing the stress on the body; relatedly, EW has been perceived as beneficial for stress-related diseases (Pennebaker & Beall, 1986). After the first study was run by Pennebaker and Beall (1986), the inhibition theory was accepted given all the promising physical health outcomes like the ones discussed earlier. From different labs conducting EW studies, however, some findings, which have hinted that some other mechanisms were also involved, have also emerged. For example, in their study Francis and Pennebaker (1992) have found that even though the EW participants showed a significant decrease in their absentee rates from work more than the control group participants, that decline was more evident for those who were low in inhibition. Another study (Greenberg et al., 1996) found that people who wrote about even imaginary traumas had the similar rates of illness visits to the people who wrote about their own traumas and related emotions. Greenberg and Stone (1992) have also found no significant differences between people who wrote about previously disclosed versus undisclosed traumas on physician visits and self-reported physical symptoms as the long-term effect of the writing which questions the inhibition model for benefits of EW.

Inhibition is found to be related to physical health in many studies whereas the idea that disclosing and releasing the body from the negative effects of inhibition as being the core aspect of the paradigm's efficacy has not been materialized (Pennebaker, 1997). When language has become the aspect as having potential to show processing differences among people, both the analysis of language and also processing itself have given rise to other complementary theories. Thus, early on, by

1990s, the inhibition theory to explain the outcomes related to the EW paradigm seem insufficient (Pennebaker, 2003).

1.5.2 Emotional processing / Exposure theory

The rationale behind this theory is about the relationship between exposure and benefits of EW is from learning theories. People in EW conditions have to face with the traumatic event and emotions related to it. Sloan and Marx (2004a) have likened the writing for multiple sessions, repeatedly, as a process that loosens the connection between unconditioned stimulus and conditioned stimuli. In other words, by writing about the same event at different times, people are exposed to the emotions aroused, repeatedly. By this process, emotions that people experience start to differ in a way that they have the chance to “unlearn” their automatic responses that emerge when they have thought about the trauma, previously.

This view is related to the exposure therapy in a way that repeated exposure to the feared / avoided stimulus reduces the degree of emotional arousal (Foa & Kozak, 1986). Relatedly to the EW paradigm, high level of emotional arousal at the first writing session among the participants in the disclosure groups and the lower levels of it in the subsequent sessions have been considered as being related to better outcomes (Sloan, Marx, & Epstein, 2005). For example, Sloan and Marx (2004b) have conducted an experiment in order to specifically examine the exposure theory as an underlying process of EW. They have found that the disclosure group has higher level of physiological arousal at the first session than the controls and only the high level of arousal at the first session was found to be related to the decrease in psychological symptoms, specifically both for the PTSD symptom severity and for depressive symptoms. At first sight, these findings have been seen as providing

support for the exposure theory. However, Sloan and Marx (2004b) have pointed out a critical distinction between the theory and the EW paradigm. The classical EW instruction (Pennebaker, 1997) does not require people to write about the same experience over the writing sessions. Therefore, the idea behind the exposure therapy that facing the same event repeatedly resulted in beneficial outcomes has become questionable. Sloan and Marx (2004b) argued that "...it may be the case that any stimulus that elicits the desired negative affective state (fear, sadness, etc.) may be the critical component for extinction and the ultimate success of any exposure-based treatment." (pg. 171).

1.5.3 Social sharing theory

The originating point of this theory is that whether the EW intervention is truly private experience or not. Audience is an important aspect in the case of expressing emotions. Although there is no explicit audience on the writing tasks, there is a relationship between the writer and the implicit audience (Brody & Park, 2004). Brody and Park (2004) have emphasized that existence of an audience whether explicit or implicit one would have an impact on the shared emotions. In the case of the experimental design studies on EW, the researchers are the actual audience. Participants might not have disclosed as much as expected because of the readers and this censoring may have interfered with the efficacy of EW interventions (Frattaroli, 2006; Radcliffe et al., 2010).

On the other hand, social sharing is considered to be a necessary part of human's lives. Rimé (1995) has concluded that most people have a desire to talk about upsetting experiences with other people. In this way of thinking, it can be expected that having an audience might also increase the beneficial outcomes of EW

in a way that people would be more willing to tell their stories (Radcliffe et al., 2010). Sharing personal experiences with other people is a way of connecting to world and also a way of getting social support (Pennebaker, Zech, & Rimé, 2001). By talking about personal experiences, people show their own psychological states and stay connected to other people (Pennebaker & Graybeal, 2001). For example, some findings have showed that social interactions can be improved by expressing emotions, especially in the case of romantic relationships (Slatcher & Pennebaker, 2006). Relatedly, for example, Wong and Rochlen (2009) have found that male college students with higher levels of restrictive emotionality were less likely to have a romantic relationship and positive relationships in general. It can be concluded that expressing emotions makes people connect with others and people who do not and / or cannot share their emotions become isolated.

1.5.4 Cognitive processing theory

Researchers studying the EW paradigm have assumed that writing about an event helps people to better understand, organize, and assimilate the event (Pennebaker, 2003). The constructivist theories, discussed in the previous section, also emphasize the people's need for meaning making during the times of loss (Gillies & Neimeyer, 2006). Relatedly, Pennebaker (1997) have suggested that writing about traumatic experiences can help the integration and assimilation process and make them more structured as a result of writing a coherent story which can affect the way the person thinks about trauma. Pennebaker (2000) has defined a constructed story as "... a type of knowledge that helps to organize the emotional effects of an experience as well as the experience itself" (p. 11). Creating meaningful stories have been associated with

the use of some specific cognitive word categories such as causation (e.g. because), and insight-related (e.g. understand) (Pennebaker et al., 1997).

Some researchers have tried to reinforce cognitive structuring by their specific writing instructions. The results are mixed. For example, decrease in depressive symptoms and perceived stress levels (Danoff-Burg, Mosher, Seawell, & Agee, 2010), and decrease in health center visits and physical symptoms among frequent clinic attenders when they wrote chronologically about negative experiences (Gidron et al., 2002) are some of the reached outcomes. On the other hand, one of the studies conducted with a Turkish university student sample (Cantekin, 2008) has also used structured instruction for one disclosure group in order to reinforce cognitive and emotional processing. In Cantekin's study (2008), another disclosure group wrote based on the standard EW protocol and also there was a control group wrote about the campus environment. Although Cantekin (2008) did not use LIWC analysis to see exact change in word use, the results of this study showed that there was no significant difference between the disclosure groups with respect to the psychological distress and cognitive processing levels and each of the three groups showed improvements at the 1-month follow-up assessment.

1.6 Current study

Based on the theories and studies mentioned earlier, the aim of the present study is multidimensional.

First of all, the goals are both to replicate some earlier findings with a Turkish university student sample and also to analyze the language use. To our knowledge, this is the first study that looks at the differences both in words and relatedly in processing differences by using LIWC program in Turkish. Besides, the effects of

negative affectivity as individual difference on the efficacy of EW paradigm is also going to be analyzed. The structured instructions were also determined with respect to the literature and expected to provide more benefits for the EW participants. While the first and the last days' instructions have been more in line with the standard EW instruction (Pennebaker, 1997), the second and third ones have aimed to increase the efficacy of the intervention by making participants to think about different aspects of their loss experiences and to switch perspectives in order to reinforce cognitive processing, respectively. Specifically, writing about the resilient part of the self is in the second day's instruction, and writing by taking third-person perspective is reinforced on the third day's writing for the EW group participants. Besides, with respect to the findings of the Frattaroli's meta-analysis (2006), the instructions of the present study have also included the specific examples and questions in order to increase the efficacy of the intervention.

Some exploratory analyses, especially for the word categories, are also going to be conducted. However, some specific hypotheses of the present study are as follows:

Impact of EW paradigm related hypotheses:

1. EW intervention was expected to show differential improvements based on negative affectivity level (i.e. lower depression, rumination, and IES-R; and higher post-traumatic growth scores) [2 (time) x 2 (condition) x 2 (NA groups) ANOVA]. Participants who are high in negative affectivity at the baseline were expected to show more benefit from the EW intervention.
2. Participants' perceived social support levels were chosen as the covariate variable to examine the impact it created on the outcomes of the EW intervention.

Exploratory hypotheses:

3. Exploratory analysis of the change from day one to day four in affect words, pronoun use, and cognitive words.
4. Exploratory analysis of the impact of the loss type (i.e. death, relationship loss) on depression, rumination, IES-R, and PTGI scores.

CHAPTER 2

METHOD

2.1 Participants

Participants were Boğaziçi University students in two mass classes and from different departments (Table 1). They got course credits for their participation to all four sessions and the follow-up assessment. The only requirement of the participation was being a native Turkish speaker because students were expected not only to fill the questionnaires but also to write essays in Turkish.

Table 1. Departments of the Participants

Department	Frequency	Percent
Psychology	4	4,7
Primary Education	7	8,1
Western Languages & Literatures	2	2,3
Guidance & Psychological Counseling	16	18,6
Foreign Language Education	4	4,7
Political Sciences & International Relations	7	8,1
Sociology	6	7,0
Translation & Interpreting Studies	1	1,2
Molecular Biology & Genetics	4	4,7
Mechanical Engineering	2	2,3
Tourism Administration	1	1,2
Management Information Systems	1	1,2
Computer Education & Educational Technology	1	1,2
Management	2	2,3
Physics	1	1,2
Industrial Engineering	1	1,2
Electrical & Electronics Engineering	4	4,7
Linguistics	2	2,3
Chemistry	1	1,2
History	1	1,2
Mathematics & Science education	1	1,2
Total	86	100,0

They were randomly assigned to the conditions. The number of participants in each condition and the number of people dropped out during the procedure can be seen in Figure 1.

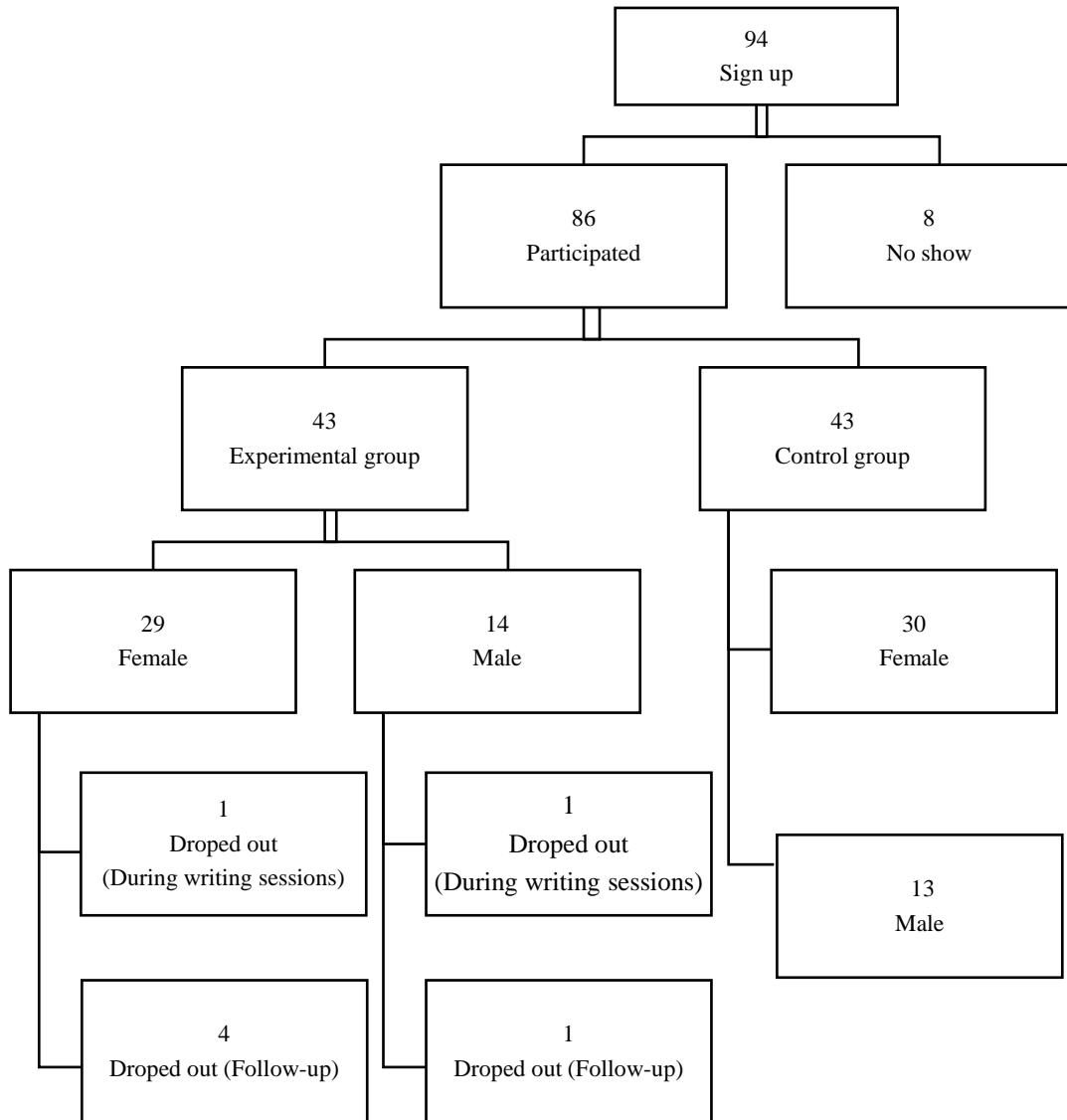


Fig. 1 Participants in the groups

Participants were between the ages of 18 and 25 ($M = 20.67$, $SD = 1.50$) and the mean of the siblings they have was 2.48 ($SD = 1.23$) as a result of that some participants came from big families. Other demographic variables (i.e. current living situation, the place they have lived most, their experience of therapy, the city parents live, and the parents' education levels) were shown in Table 2.

Table 2. Demographics of Participants

Variables	Experimental (EG)		Control Group (CG)	
	Frequency	Percent	Frequency	Percent
Current Living Situation				
Family	14	32.6	11	25.6
Dormitory	15	34.9	20	46.5
With housemate	9	20.9	11	25.6
Alone	4	9.3	1	2.3
Other	1	2.3	-	-
Most Lived Place				
Town	2	4.7	7	16.3
City	11	25.6	10	23.3
Metropolis	30	69.8	26	60.5
Therapy				
Past	5	11.6	10	23.3
Current	3	7	4	9.3
No history	32	74.4	29	67.4
Not specified time	3	7	-	-
Parents' City				
Istanbul	23	53.5	18	41.9
Other	20	46.5	25	58.1
Mother Education				
No Education	-	-	1	2.3
Primary School	8	18.6	7	16.3
Middle School	4	9.3	5	11.6
High School	12	27.9	13	30.2
Bachelor's degree	15	34.9	16	37.2
Postgraduate	4	9.3	1	2.3
Father Education				
No Education	-	-	-	-
Primary School	4	9.3	2	4.7
Middle School	5	11.6	6	14
High School	8	18.6	6	14
Bachelor's degree	22	51.2	22	51.2
Postgraduate	4	9.3	6	14
Other	-	-	1	2.3

2.2 Procedure

After the approval of the university's The Ethics Committee for Master and PhD Theses in Social Sciences and Humanities (Appendix A), the announcement of the study was sent to the students in three sections via email. They chose the time they were able to attend for their first day of the study. The following appointments were

set when they completed their first day. Most participants, except for three, completed the writing sessions within a week of their first session ($M = 4.57$, $SD = 1.03$). The follow-up assessment date was planned to be three weeks later and was scheduled after the last writing session ($M = 27.95$, $SD = 1.08$).

When the participants had arrived, they were randomly assigned into the conditions and the consent forms specific for each condition (Appendix B and C) were given to them, accordingly. After they signed the consent forms, they were taken into the separate rooms in order to provide privacy. Brief information about the study was given by the experimenter; however, the exact aim of it was excluded at that point of the study in order not to influence the essays.

Previously to the writing section of the study, the scales and forms were given to each participant in an envelope on which the participant number was written: Demographic Form (Appendix D), Positive and Negative Affect Schedule (PANAS; Appendix E), Beck's Depression Inventory (BDI; Appendix F), Ruminative Thought Style Questionnaire (RTSQ; Appendix G), The Life Experiences Questionnaire (Appendix H), The Event Impact, Previous Disclosure, Inhibition Scale (EPDIS; Appendix I), The Impact of Event Scale-Revised (IES-R; Appendix J), Posttraumatic Growth Inventory (PTGI; Appendix K), and Multidimensional Scale of Perceived Social Support (MSPSS; Appendix L). Then, the writing instruction for day one (Appendix M) and the Post-Session Evaluation Questionnaire (Appendix N) were also delivered in another envelope and collected as sealed. The next appointments that the participant would attend for her/his other writing sessions were set and s/he was told that the first day of the study has been completed.

The second (Appendix O) and the third day of the study (Appendix P) had consisted of only the writing sessions for 15 minutes and the post-session evaluation

questionnaires for each day. The last day of the sessions, after the fourth day's writing assignment (Appendix Q), there was an additional questionnaire, The Post-Experiment Evaluation Questionnaire (Appendix R). At the end of the fourth day, participants were reminded that they were expected to come for the follow-up assessment three weeks later, and the schedule for it was set.

For the follow-up assessment, two days of the week which was three weeks later the writing sessions were offered to the participants. They had chosen one of the days and set the suitable times for them. Two days before the follow-up assessment, emails as remainder of the day and time were sent to the participants. When they showed up for their fifth day, they were given PANAS, BDI, RTSQ, EPDIS, IES-R, and PTGI forms in one envelope. Each day's procedure can be seen in Figure 2.

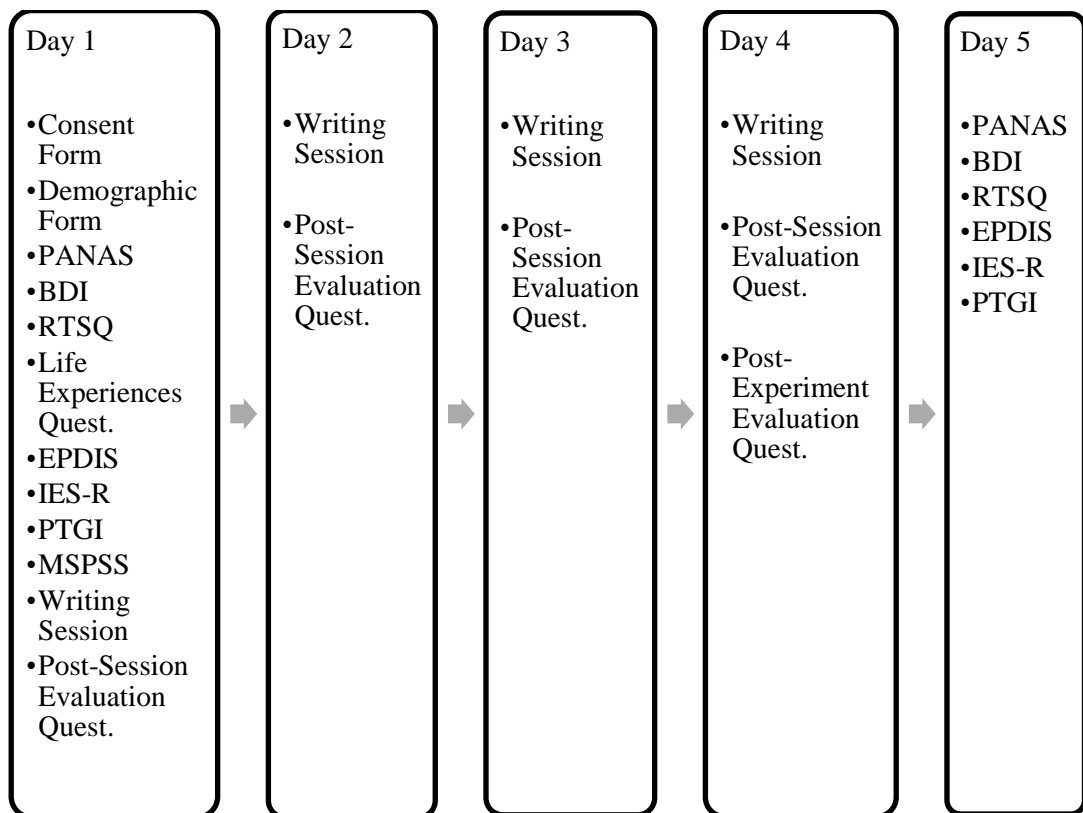


Fig. 2 Procedure

2.3 Materials

2.3.1 Consent forms (Appendices B and C)

In order to give the participants information about the study, and to obtain their consents for using their data, the consent forms have been developed. The aim of the study was not written in much detail in order not to affect the participants and their essays. For each study group, different wording has been used in the forms.

Basically, for the control group, they were told that the study would examine the effects of writing; on the other hand, “the effects of writing about loss experiences” was stated in the experimental group’s forms.

An important statement, which was added into the form, is related to The Flip-Out Rule (Pennebaker, 2004). Basically, the participants were asked to stop writing on the topic they have been writing and to think some other topic to write about if they have found themselves in a state that they thought they could not handle the topic and related emotions. This information was also in the first day’s writing instruction and on each day the experimenter verbally reminded all participants that they did not have to write about the same topic which they had been writing both in the previous session and/or after they started writing on that session.

2.3.2 Demographic form (Appendix D)

The form was consisted of the questions like age, gender, and their parents’ educations. For each question, please refer to the Appendix D.

2.3.3 Positive and negative affect schedule (PANAS; Appendix E)

PANAS has been chosen as the measure of Negative Affectivity levels of the participants in this study. The original measure was developed by Watson, Clark, and

Tellegen (1988). The measure has two subscales, positive affect (PA) and negative affect (NA). Each subscale consists of 10 items on a 5-point Likert type scale and the subscales' Cronbach alphas have been reported as being high (for PA, ranging from .86 to .90; from .84 to .87 for NA) (Watson et al., 1988).

The Turkish adaptation of the PANAS was done by Gençöz (2000). The internal consistencies were reported as .86 for NA, and .83 for PA. An additional study used the PANAS in Turkish reported the alphas as .88 for PA, .86 for NA (Kavcıoğlu, 2011).

For the current study, 16 items in each subscale were present. Also, the trait version of PANAS and the state version of it were used both at the pre-test and at the follow-up assessments. The reliability of NA subscale of the Trait version of PANAS is .87 at the pre-test assessment, and .92 at the follow-up time. For NA subscale in the State version of PANAS, the reliability is .93 at the pre-test, and .91 at the follow-up assessment.

For the State version of PANAS, the reliability of the PA subscale is .92 at the pre-test time, and .93 at the follow-up assessment. The PA subscale of the Trait version of PANAS, has .88 reliability both at the pre-test time and at the follow-up assessment.

2.3.4 Beck's depression inventory (BDI; Appendix F)

The original inventory was developed by Beck and his colleagues (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). It is a self-report measure with 21 items which assess the depressive symptoms and perceptions of the person in question. There have been different forms of the inventory with different levels of reliabilities but the

coefficient alphas of the BDI's 21-item have been reported as ranging from .92 to .78 in university student samples (for the review; Beck, Steer, & Garbin, 1988).

The Turkish adaptation of BDI was done by Hisli (1989) and reported as having acceptable statistical results ($r = .80$). The cut-off point of the Turkish version of BDI was offered as 17 to point the clinically depressed people in college samples (Hisli, 1989).

For the current study, 20-item version of BDI was used by leaving out the item on suicidal thoughts. The scale's reliability at the pre-test time is .85, and .89 for the follow-up assessment.

2.3.5 Ruminative thought style questionnaire (RTSQ; Appendix G)

The original RTSQ was developed to assess general rumination tendency rather than depressive rumination (Brinker & Dozois, 2009). It is a 20-item on Likert type measure. Brinker and Dozois (2009) have reported the internal reliability of the total questionnaire as very high (.92) in the psychology undergraduate sample ($N = 118$).

The Turkish adaptation of the questionnaire has been done in the scope of a doctoral dissertation and the Cronbach alpha of the total scale has been found as .91 (Karatepe, 2010). There is no established cut-off point for any diagnoses; however, the total score represents the level of rumination tendencies of people.

For the current study, the reliability of the scale is .93 both for the pre-test and the follow-up assessments.

2.3.6 Life experiences questionnaire (Appendix H)

In order to assess the past traumatic experiences of the participants, some probable negative events have been listed. These predetermined questions had two types of

answers: One was in a yes or no format and asked participants whether they have experienced that specific event in their lives or not. If they answered 'yes' to the first one, the next question required them to specify the time as an age range in which they have experienced the event.

2.3.7 Event impact, previous disclosure, inhibition scale (EPDIS; Appendix I)

Pennebaker and Beall (1986) included some questions about the trauma chosen to be written in the EW paradigm such as the impact of the event on the participant, level of previous disclosure, and how much they had inhibited themselves from thinking about it. These questions are in the form of a likert scale. These questions are included in the EW paradigm, thus they were part of the package, however, each of these constructs (i.e. event impact, inhibition/avoidance) were assessed additionally using the IES-R.

2.3.8 The impact of event scale–revised (IES-R; Appendix J)

To measure participants' intrusion, avoidance, and hyperarousal levels IES-R was chosen. The original scale was developed by Horowitz, Wilner, and Alvarez (1979). It consisted of 15 items in two subscales which were intrusion and avoidance. The Cronbach alpha for the intrusion subscale was .78, and for the avoidance subscale was .82. The split-half reliability for the total scale was also high ($r = .86$). The revised version of the IES was developed in 1997 by Weiss and Marmar (as cited in Weiss, 2007). They have added the hyperarousal subscale with 6 items and also 1 additional item into the intrusion subscale. Therefore, the scale has become a 22-item measure with three subscales. The internal reliability of each subscale was reported

as being high (for intrusion $\alpha = .87$; for avoidance, $\alpha = .84$; for hyperarousal, $\alpha = .79$) (as cited in Çağlayan, 2016).

The Turkish adaptation of the IES-R was studied in 2006 by Işıklı. Both the standardization work by Işıklı (2006) and another study conducted by Çağlayan (2016) have reported the total scale's internal reliability as being high (.93 and .94, respectively). These two separate studies reported the Cronbach's alpha of the avoidance subscale as .82 and .81, respectively. For the intrusion subscale, Işıklı (2006) found a somewhat smaller alpha number (.83) than the reported alpha (.92) by Çağlayan (2016). The internal reliability of the third subscale, hyperarousal, also was high in both the study conducted by Işıklı (2006) ($\alpha = .90$) and the Çağlayan (2016)'s study ($\alpha = .89$).

For the current study, the wording of the scale's instruction has been changed to match the topic of loss. At the pre-test assessment time, the total reliability of the scale is .89. The reliabilities of the intrusion, avoidance, and hyperarousal subscales are .81, .71, and .79, respectively. The total reliability of the scale at the follow-up assessment is .87. The intrusion, avoidance, and hyperarousal subscales have the reliabilities as .76, .73, and .74, respectively.

2.3.9 Post-traumatic growth inventory (PTGI; Appendix K)

The original PTGI, which consisted of 21 items in the five subscales, developed by Tedeschi and Calhoun (1996). They reported the internal consistency of the inventory as .90. The alphas for the subscales were found to be .84 for the New Possibilities subscale (5 items), .85 both for the Relating to Others (7 items) and for the Spiritual Change (2 items) subscales, .72 for the Personal Strength (4 items), and .67 for the Appreciation of Life subscale (3 items) (Tedeschi & Calhoun, 1996).

The Turkish translation was done twice one of which has the 5-point scale (Kılıç, 2005; cited in Dirik & Karancı, 2008) and the second one is a 6-point scale like the original one (Dirik & Karancı, 2008). The last adaptation has found a three-factor structure of the scale; and reported alphas as .94 for the total scale, .86 for Relationship with Others, .87 for Philosophy of Life, and .88 for Self-Perception (Dirik & Karancı, 2008). Another study tested the original five-factor model and found alphas for the factors new possibilities, relating to others, personal strength, spiritual change, and appreciation of life as being .81, .84, .79, .63, .83, respectively (Karancı et al., 2012).

For the current study, the New Possibilities Subscale has been removed because of the possibility that some participants could write about the death of a loved one. Therefore, some of the items were deemed to be potentially disturbing for them. The reliability of the 4-factor model of PTGI is .87 at the pre-test assessment. The subscales relation to others, personal strength, spiritual change, and appreciation of life have the reliabilities as .72, .78, .54, and .94, respectively. At the follow-up assessment, the total scale's reliability is .89. While the alpha of the spiritual change subscale is again lower (.65), the appreciation of life subscale has again the highest reliability as being .91. The reliabilities of both the relating to others and the personal strength subscales are .78.

2.3.10 Multidimensional scale of perceived social support (MSPSS; Appendix L)

The original scale has been developed in a way to assess subjective social support quickly and easily (Zimet, Dahlem, Zimet, & Farley, 1988). It is a self-report measure with 12 items on a Likert scale and there are three subscales: Significant Other, Family, and Friends. Zimet and his colleagues (1988) have developed the

scale in a college sample. They reported the internal reliability of the total scale as high (.88). The alphas for the subscales were also acceptable (.91, for Significant Other; .87, for Family; .85, for Friends).

The Turkish adaptation of MSPSS was done by Eker and Arkar (1995). They conducted the study with a university student (US; $N = 146$) sample at first. Then they used the scale in one study with four different hospital samples which were the university students who went to the medical center with psychiatric /psychological problems (US-med; $N = 50$), the patients with kidney problems, the patients in the psychiatry department of the hospital (half of them was inpatients and the other half was outpatients), the control group which consisted of random visitors of the patients. The results related to this study were from the two university student samples. They reported the internal reliability of the total scale as .85 for the US sample and .77 for the US-med sample. The subscales alphas from the US sample were .91 for Significant Other, .87 both for Family and for Friends. From the US-med sample, the alphas for the Significant Other, Family, and Friends subscales were .79, .82, .86, respectively (Eker & Arkar, 1995).

For the current study, this scale is used only at the pre-test time. The reliability of the total scale is .84. For the significant other subscale, the alpha is the highest (.98). The reliabilities of the family and the friend subscales are .91 and .93, respectively.

2.3.11 Writing instructions for the first day (Appendix M)

In the writing instruction for the first day, the experimental group participants were asked to write about an experience that they consider as a loss in their lives. The type of loss was not specified, and the participants were expected to choose their own

topic. Some examples have been given with respect both to the issues they could mention in their essays and also to the types of losses they could think of. For the control group, the instruction required them to write about their daily schedule.

2.3.12 Writing instructions for the second day (Appendix O)

For the second day, the instruction has focused on the resiliency of the participants. They were expected to write about the sources they have used as resources to ease their sufferings, and whether they got any positive outcomes from their experiences or not. The examples of possible benefits were also given in the instruction. The control participants have written about their last weekend activities for the second-day essay assignment.

2.3.13 Writing instructions for the third day (Appendix P)

Based on the perspective switching aspect of the study, the instruction of third day has been determined. Participants were expected to write in a way that they did not include themselves in their story and simply did write the loss-related event/situation as being another person's experience. Specifying examples were also given in the instruction. The control group was asked to write about their plans for the upcoming weekend.

2.3.14 Writing instructions for the fourth day (Appendix Q)

As the last day of the writing sessions, participants were asked to write again their experience in a way that was similar to the first session. However, the wording was modified in order to reinforce them to create an audience for their experiences. Specifically, participants were asked to write about their loss experience as if they

were telling someone who did not know anything about the event/situation. As the fourth day's assignment, the control participants were expected to write about their schedule for the coming week.

2.3.15 Post-session evaluation questionnaire (Appendix N)

The scale was developed by Pennebaker and Beall (1986) as part of the EW paradigm to evaluate the participants' physical symptoms related to writing, emotional status after writing, perceived value and meaning of their essays, self-reported inhibitions on the subject, and the degree to which they perceive the writing was personal, and how much they wished to share what they have written with someone. The scale consisted of 6 questions in 7-point Likert scale type, and one open-ended question asked them to write about how their writing experiences were.

2.3.16 Post-experiment evaluation questionnaire (Appendix R)

At the end of the fourth day of the writing sessions, an additional evaluation scale was filled by the participants, again developed by Pennebaker and Beall (1986) as part of the EW paradigm. This scale has three types of questions. One of these subscales has nine items in 10-point Likert type questions. These nine items were about their perceptions of how much personal their four essays were, the perceived severity of the event, the degree to which they were able to share their deepest thoughts and emotions about the event, the perceived effect of the event on their current daily lives, the degree to which they have shared the event previously, how hard it was for them to write the event for four days, and the degree to which they felt sad and happy during the four days of the experiment, respectively. There are three open-ended questions about the writing experience. These questions tapped at

the positive and negative sides of writing, respectively, and whether they thought that the writing experience was going to be of help to them. The last two questions asked the participants to specify their age at the time of the loss, and to mark which period of their lives they have had experienced it.

2.3.17 LIWC analysis

The Turkish version of LIWC was developed by Mderrisođlu (2016). The detected words by LIWC (Dictionary), word counts, and words per sentence for each day's essays were shown in Table 3.

Table 3. LIWC Results

Categories		<i>N</i>	<i>M</i>	<i>SD</i>	Min	Max
Word Count						
	Day 1	86	252.45	102.31	60	691
	Day 2	85	242.02	70.24	103	422
	Day 3	85	219.94	82.47	57	493
	Day 4	84	224.82	97.08	75	696
Words per Sentence						
	Day 1	86	11.94	9.81	5.21	81
	Day 2	85	10.82	4.45	4.38	29.25
	Day 3	85	12.26	18.09	3.35	175
	Day 4	84	11.44	12.66	5.07	123
Dictionary (%)						
	Day 1	86	90.50	4.40	77.78	97.89
	Day 2	85	91.20	3.92	73.72	96.41
	Day 3	85	90.37	3.66	82.81	97.18
	Day 4	84	90.55	4.06	76.47	97.33

CHAPTER 3

RESULTS

For the purpose of the current study, the findings related to EW were explored for both the condition effects as well as individual differences based on negative affect as an interaction effect. All parametric analyses were conducted by dividing the sample based on both the conditions and the participants' scores on the baseline value of PANAS – Trait version's subscale Negative Affectivity. High and Low Negative Affectivity (NA) Groups have been created and for the cut-off point, the median of the scale ($Mdn = 93$) was used.

First, all data was screened and cleared for the possible disturbances like extreme scores, outliers, and missing values by splitting it based on both the conditions and the NA groups. There were no multivariate outliers on the current sample but there were small number of univariate outliers (for scales $n = 4$; for post-session questionnaires $n = 4$; for word categories analyzed $n = 6$) which were handled by excluding them from the analyses in which they had the extreme scores. The normality test of the related measures became unproblematic after excluding these outliers. In general, except when it was mentioned, assumptions were not violated. Considering the homogeneity of variances assumption, because the sample sizes in each group were almost equal, the Levene's test's significance was not considered as a violation (Field, 2013).

Regarding the missing values, during pretest assessment, PTGI and MSPSS scales were not included in the battery package for one participant in the control group (CG), and IES-R for one participant in the experimental group (EG) due to the error of the experimenter. Additionally, at the follow-up assessment, one participant

in the EG skipped one page of PANAS. Also, there were small number of missing values which were mostly random, and they were left as they were. The SPSS option “exclude cases pairwise” was used based on the knowledge that the appropriate option to analyze the data with this proportion of missing values (Field, 2013). For all analyses, two dropouts who did not complete the writing sessions were excluded from the sample and the final sample size has become 84 for baseline measures. Five people who did not show up at the follow-up time were excluded only from the analyses included the data from that time.

3.1 Descriptive analyses

A crosstabulation analysis was conducted to see the relationship between the conditions and the NA groups. The results showed a relatively even distribution across groups (Table 4).

Table 4. Crosstabulation Results

		NA Groups			
		Low	High	Total	
Condition	EG	Count	20	21	41
		% within Condition	48.8%	51.2%	100.0%
		% within NA groups	44.4%	53.8%	48.8%
		% of Total	23.8%	25.0%	48.8%
	CG	Count	25	18	43
		% within Condition	58.1%	41.9%	100.0%
		% within NA groups	55.6%	46.2%	51.2%
		% of Total	29.8%	21.4%	51.2%
Total		Count	45	39	84
		% within Condition	53.6%	46.4%	100.0%
		% within NA groups	100.0%	100.0%	100.0%
		% of Total	53.6%	46.4%	100.0%

Considering the time of the chosen loss experience (i.e. the age of the trauma) the groups were very similar to each other (for EG, $N = 39$, $M = 16.64$, $SD = 4.29$; for CG, $N = 34$, $M = 16.56$, $SD = 5.09$). Also, the time passed since the chosen event was computed by subtracting the time of event from the age of participant. The

overall mean for the time passed since the chosen event the EG and the CG were 3.95 years ($N = 39, SD = 4.45$) and 4.15 years ($N = 34, SD = 4.51$), respectively. In addition to that, the frequencies of the written topic for EG can be seen in Table 5.

Table 5. Types of the Written Topics

Written Topic	Frequency	Percent
Death	13	31.7
Death of a loved one by suicide	2	4.9
Romantic Relationship	9	22.0
Being Cheated	3	7.3
Friendship	2	4.9
Academic	3	7.3
Family Dispute	2	4.9
Sexual Abuse / Rape	1	2.4
Denigration	1	2.4
Leaving Home	1	2.4
Death of a loved one by terrorist attack	1	2.4
Personal Illness / Health Issues	3	7.3
Total	41	100

For the baseline measures, group differences were analyzed by a MANOVA in order to see whether the randomly assigned groups differed from each other, significantly, or not. There was no difference between the experimental conditions (i.e. no significant main effect of condition) while there were some significant differences across the affectivity groups. Specifically, the High NA (H-NA) group was significantly higher scores on both the RTSQ ($F(1,78) = 10.47, p < .01, \eta_p^2 = .12$) and the IES-R subscale Hyperarousal ($F(1,78) = 4.65, p < .05, \eta_p^2 = .06$) as well as the BDI ($F(1,78) = 15.36, p < .001, \eta_p^2 = .17$) than the Low NA (L-NA) group. There was no significant interaction between the conditions and affectivity groups. For detailed descriptive of the NA groups within the conditions, refer to the Table 6.

Table 6. Descriptive of the Measures

		Experimental Group (EG)				Control Group (CG)			
		Pre-Test		Follow-Up		Pre-Test		Follow-Up	
		M (SD)		M (SD)		M (SD)		M (SD)	
		L-NA (N = 20)	H-NA (N = 21*)	L-NA (N = 19**)	H-NA (N = 17)	L-NA (N = 25***)	H-NA (N = 18)	L-NA (N = 25)	H-NA (N = 18)
PANAS TR	NA	22.95 (2.65)	37.33 (7.09)	24.22 (4.78)	35.82 (10.21)	24.08 (3.44)	38.67 (4.59)	23.88 (4.81)	39.28 (9.46)
	PA	52.00 (10.46)	49.33 (7.74)	51.17 (9.53)	47.24 (7.28)	55.96 (10.88)	50.94 (8.39)	56.28 (9.78)	47.22 (10.30)
PANAS ST	NA	30.20 (10.39)	44.19 (9.11)	28.16 (9.91)	34.76 (11.36)	32.96 (12.87)	44.33 (13.30)	29.68 (8.89)	39.72 (14.73)
	PA	44.40 (13.76)	37.43 (10.55)	45.47 (8.80)	41.41 (12.60)	43.20 (13.04)	38.22 (9.23)	45.12 (14.42)	40.11 (14.49)
The Impact of Event Scale- Revised (IES-R)		24.50 (13.72)	32.50 (16.43)	19.58 (10.48)	30.41 (11.29)	28.04 (15.79)	33.94 (18.76)	22.84 (14.69)	31.56 (16.05)
	Intrusion	8.75 (5.52)	12.65 (7.16)	7.00 (3.20)	10.59 (5.01)	10.28 (6.24)	11.83 (7.49)	8.00 (5.54)	11.28 (7.13)
	Avoidance	9.35 (5.52)	9.50 (5.01)	7.84 (6.35)	9.82 (4.26)	9.00 (6.01)	10.83 (5.85)	8.44 (5.74)	10.28 (4.76)
	Hyperarousal	6.40 (6.05)	10.35 (7.18)	4.74 (3.14)	10.00 (5.61)	8.76 (6.04)	11.28 (7.74)	6.40 (5.23)	10.00 (7.32)
Posttraumatic Growth Inventory (PTGI)		37.70 (17.01)	34.90 (16.62)	47.21 (15.71)	39.41 (14.61)	38.00 (16.19)	34.06 (14.16)	41.84 (16.19)	36.61 (16.27)
	Relating to others	13.75 (7.35)	13.76 (8.44)	18.11 (7.77)	15.41 (7.89)	13.50 (7.63)	13.56 (7.71)	16.32 (7.67)	15.00 (8.69)
	Personal strength	11.45 (6.28)	10.05 (5.46)	14.05 (4.02)	11.00 (6.33)	12.33 (5.52)	9.67 (4.19)	12.88 (4.61)	10.61 (4.54)
	Spiritual change	4.35 (3.12)	3.95 (2.62)	5.16 (3.20)	3.94 (3.15)	4.71 (2.66)	4.61 (3.13)	4.56 (2.75)	4.56 (3.24)
	Appreciation of life	8.15 (5.24)	7.14 (5.56)	9.89 (4.58)	9.06 (4.75)	7.46 (5.03)	6.22 (4.51)	8.08 (4.07)	6.44 (4.22)
BECK's Depression Inventory (BDI)		11.55 (7.86)	20.30 (10.01)	10.32 (4.75)	16.76 (8.59)	13.16 (8.32)	19.39 (7.38)	10.56 (6.48)	17.83 (11.47)
Ruminative Thought Style Questionnaire (RTSQ)		84.25 (21.45)	100.76 (20.22)	82.95 (19.88)	99.76 (21.91)	87.04 (24.55)	102.39 (22.73)	79.12 (21.44)	96.67 (24.24)
Multidimensional Scale of Perceived Social Support (MSPSS)		59.85 (15.98)	53.00 (15.17)	-	-	63.17 (13.23)	58.11 (16.46)	-	-
	Special person	16.75 (10.23)	15.52 (9.84)	-	-	20.50 (9.06)	16.83 (10.54)	-	-
	Family	20.20 (7.16)	16.90 (7.86)	-	-	18.21 (7.67)	19.83 (7.18)	-	-
	Friends	22.90 (5.69)	20.57 (5.64)	-	-	24.46 (3.88)	21.44 (7.21)	-	-

*For IES-R, $N = 20$; **For PANAS-TR at the follow-up, $N = 18$; ***For PTGI and MSPSS, $N = 24$

Additionally, on the EPDIS' nominal level questions which address characteristics related to the traumatic experience participants were asked to either write about (EG) or think about only in the baseline measurement period (CG), a chi-square analysis was carried out. For the scale level questions of the same measure, an independent sample *t*-test were conducted to see whether there was a difference between the EG and the CG. Both analyses showed that the two groups were similar on this measure, too (all *ps* > .05). The descriptive of the EPDIS for both groups can be seen in Table 7.

As mentioned before in the previous chapter, earlier negative life experiences were asked to the participants in each group. The frequencies of each event for the EG participants and the CG participants were shown in Table 8 and Table 9, respectively.

Table 7. Descriptive of EPDIS for Both Groups

	Experimental Group		Control Group	
	Frequency	M (SD)	Frequency	M (SD)
Past impact of the loss		4.27 (0.92)		4.26 (0.95)
Current impact of the loss		2.90 (1.26)		2.88 (1.22)
Personal change after the loss		4.00 (1.00)		3.72 (1.10)
Emotional reactions in time				
Diminished	9		8	
Lower	21		16	
Same	4		9	
More	3		9	
Much more	3		1	
Talking with someone				
Yes	37		36	
No	4		7	
Days after the loss until talking		446.16(1071.64)		335.86 (901.35)
Emotions after talking				
Worse	8		5	
Not changed	10		15	
Better	15		13	
Much better	4		4	
Degree of sharing		3.59 (1.14)		3.84 (1.00)
Satisfaction of talking		3.44 (1.21)		3.61 (1.10)
Easy sharing		2.51 (1.34)		2.95 (1.34)
Thinking that bothering others				
Never	17		12	
Rarely	8		8	
Sometimes	11		11	
Often	2		6	
Always	1		1	
Inhibited by disturbing others				
Never	16		13	
Rarely	5		8	
Sometimes	8		10	
Often	9		5	
Always	-		2	
Thinking that others minimize				
Never	18		16	
Rarely	4		7	
Sometimes	11		8	
Often	3		5	
Always	3		1	
Others avoid talking				
Never	21		20	
Rarely	6		11	
Sometimes	11		5	
Often	1		2	
Always	-		-	
Change in others' perspectives				
Yes, positively	11		5	
Yes, negatively	2		2	
No	26		31	

Table 8. Trauma Histories of the Experimental Group

Frequencies
Experimental Group (N = 41)

Trauma Type	Age at the event							Experienced more than once						
	None	0-6	7-11	12-15	16-19	>20	NOW	X2	X3	X4	X5	All	Not Specified	Missing
Family Health	21	3	1	1	7	1	2	4	1	-	-	-	-	-
Family Economic	22	1	4	5	5	-	1	1	1	-	-	-	-	-
Parents' Divorce / Separation	35	3	1	1	-	-	-	-	1	-	-	-	-	-
Personal Health	28	2	4	1	1	1	1	2	2	-	-	-	-	-
Mother Loss	41	-	-	-	-	-	-	-	-	-	-	-	-	-
Father Loss	38	2	-	-	1	-	-	-	-	-	-	-	-	-
Sibling Loss	41	-	-	-	-	-	-	-	-	-	-	-	-	-
Friend Loss	36	-	1	1	3	-	-	-	-	-	-	-	-	-
Other Significant Loss	21	1	3	3	7	1	1	3	1	-	-	-	-	-
Exposure to Violence	28	2	2	4	1	1	1	-	-	-	-	-	-	2
Natural Disaster	31	8	-	1	1	-	-	-	-	-	-	-	-	-
End of a romantic relationship	13	-	-	1	12	9	3	3	-	-	-	-	-	-
Other Significant Life Event(s)	-	-	-	4	2	1	-	1	1	-	-	-	-	32

Table 9. Trauma Histories of the Control Group

Frequencies
Control Group (N = 43)

Trauma Type	Age at the event							Experienced more than once						
	None	0-6	7-11	12-15	16-19	> 20	NOW	X2	X3	X4	X5	All	Not Specified	Missing
Family Health	18	3	3	5	4	2	3	3	1	1	-	-	-	-
Family Economic	24	1	6	5	2	-	1	2	1	1	-	-	-	-
Parents' Divorce / Separation	33	2	4	-	1	1	1	1	-	-	-	-	-	-
Personal Health	31	1	3	2	4	2	-	-	-	-	-	-	-	-
Mother Loss	43	-	-	-	-	-	-	-	-	-	-	-	-	-
Father Loss	42	-	-	1	-	-	-	-	-	-	-	-	-	-
Sibling Loss	42	-	1	-	-	-	-	-	-	-	-	-	-	-
Friend Loss	39	-	1	1	1	-	1	-	-	-	-	-	-	-
Other Significant Loss	20	1	5	3	8	4	2	-	-	-	-	-	-	-
Exposure to Violence	31	2	4	1	-	-	1	3	-	-	-	-	1	-
Natural Disaster	33	8	1	1	-	-	-	-	-	-	-	-	-	-
End of a romantic relationship	19	-	-	-	13	6	1	2	1	-	-	-	1	-
Other Significant Life Event(s)	2	1	2	3	3	2	-	1	1	-	-	1	-	27

3.2 Manipulation check

Regarding the topic of each group, the post-session and the post-experiment evaluation questionnaires, and the content of the essays based on affect words categories (i.e. positive and negative affect words) and pronoun usage change across sessions were chosen as manipulation checks.

The post-session evaluation questionnaires for each day were analyzed to see whether there was any difference between the EG and the CG (Table 10). The analysis showed that the EG participants reported more negative affect on Day 1 than the CG ($t(80) = -2.79, p < .01$). Besides, some other significant differences were observed between the groups in each day (all $ps < .001$) as the EG participants reported their essays as being more personal, meaningful and important. They also considered that they shared their deepest emotions related to the topic in each session including the participants who had not shared with anyone before. Additionally, EG participants reported higher level of inhibition regarding the topic they wrote on while they also expressed that they wished they had shared the content previously with someone (all $ps < .001$).

As evaluation of the four sessions, the post-experiment evaluation questionnaire was also analyzed to see the groups' experiences of writing (Table 11). Two groups were similar both on their happiness ratings for the four days of writing and on their levels of sharing the topic before the experiment ($ps > .05$). On the other hand, the EG participants were significantly sadder during last four days than the CG ($p < .05$) and they rated their topics as being more personal, more difficult at the time the loss happened, and as containing their deepest emotions ($ps < .01$). Besides, the EG had significantly more difficulty in writing ($p < .01$).

Table 10. Post-Session Evaluation Questionnaire Scores across Conditions

	EG		CG		<i>t</i>	<i>p</i>
	<i>N</i>	<i>M (SD)</i>	<i>N</i>	<i>M (SD)</i>		
Total Positive Affect*						
Day 1	38	7.42 (4.25)	43	7.65 (3.58)	.264	.792
Day 2	40	8.53 (3.78)	43	7.93 (3.98)	-.697	.488
Day 3	40	7.38 (4.31)	43	7.47 (4.85)	.089	.929
Day 4	40	6.75 (3.75)	41	8.61 (4.88)	1.921	.058
Total Negative Affect*						
Day 1	39	22.13 (9.67)	43	16.91 (7.28)	-2.794	.007
Day 2	40	15.50 (7.81)	43	14.67 (7.63)	-.487	.628
Day 3	40	14.80 (8.20)	43	15.44 (8.38)	.352	.726
Day 4	40	14.43 (8.78)	41	13.93 (7.00)	-.283	.778
Total Physical Symptoms*						
Day 1	38	14.89 (8.09)	43	15.07 (9.30)	.090	.929
Day 2	38	10.47 (5.86)	41	12.10 (6.90)	1.123	.265
Day 3	38	9.87 (4.93)	43	12.35 (7.04)	1.814	.073
Day 4	38	10.26 (5.14)	41	11.22 (4.91)	.846	.400
How Much Personal						
Day 1	40	8.53 (1.63)	43	4.95 (2.94)	-6.765	.000
Day 2	41	7.90 (1.80)	43	4.93 (2.46)	-6.289	.000
Day 3	41	7.88 (1.90)	43	4.74 (2.41)	-6.595	.000
Day 4	41	7.93 (1.69)	42	4.38 (2.37)	-7.829	.000
How Much Meaningful/Important						
Day 1	40	8.68 (1.54)	43	4.19 (2.63)	-9.394	.000
Day 2	41	8.51 (1.89)	43	4.63 (2.61)	-7.786	.000
Day 3	41	8.20 (1.78)	43	4.93 (2.60)	-6.679	.000
Day 4	41	8.07 (1.92)	42	4.95 (2.43)	-6.489	.000
How Much Emotion Shared						
Day 1	40	7.85 (1.85)	43	2.44 (2.35)	-11.586	.000
Day 2	41	7.73 (1.82)	43	2.05 (1.59)	-15.289	.000
Day 3	41	7.44 (2.01)	43	2.47 (2.28)	-10.574	.000
Day 4	41	7.44 (2.26)	42	2.17 (1.79)	-11.792	.000
How Much Shared What Previously Not Shared						
Day 1	40	5.55 (2.94)	43	2.05 (1.85)	-6.553	.000
Day 2	41	6.20 (2.54)	43	1.98 (1.91)	-8.628	.000
Day 3	41	6.73 (2.61)	43	2.37 (2.31)	-8.120	.000
Day 4	41	5.66 (2.71)	42	2.38 (2.08)	-6.190	.000
Wishing to have Shared						
Day 1	39	5.15 (3.20)	43	2.16 (2.19)	-4.977	.000
Day 2	41	5.27 (3.14)	43	1.51 (1.18)	-7.324	.000
Day 3	41	5.34 (2.88)	43	2.16 (2.08)	-5.822	.000
Day 4	41	5.12 (3.15)	42	1.74 (1.47)	-6.302	.000
How Much Inhibited						
Day 1	40	5.50 (2.99)	43	2.26 (1.97)	-5.884	.000
Day 2	41	5.07 (3.14)	43	1.63 (1.46)	-6.491	.000
Day 3	41	4.88 (3.08)	43	1.79 (1.77)	-5.674	.000
Day 4	41	4.78 (2.99)	42	1.79 (1.54)	-5.761	.000

* The total scores were obtained by summing the related items in the questionnaire

Table 11. Post-Experiment Evaluation Questionnaire Scores across Conditions

	EG (<i>N</i> = 40)	CG (<i>N</i> = 40)	<i>t</i>	<i>p</i>
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
How Much Personal	8.33 (1.54)	4.30 (2.23)	-9.38	.000
Difficulty at The Time of The Event	7.95 (2.08)	3.95 (2.44)	-7.90	.000
Current Impact of The Event	6.73 (2.32)	4.75 (2.88)	-3.38	.001
How Much Shared Previously	5.60 (2.29)	6.20 (2.52)	1.12	.268
How Much Shared During Sessions	7.98 (1.61)	2.70 (1.84)	-13.64	.000
How Much Inhibited	4.88 (2.62)	2.25 (1.77)	-5.24	.000
How Difficult The Writings were	5.43 (1.99)	3.93 (2.01)	-3.36	.001
Feeling Sad Last Four Days	5.38 (2.32)	4.20 (2.29)	-2.28	.025
Feeling Happy Last Four Days	4.90 (1.97)	5.13 (2.12)	.49	.624

In addition to these self-reported measures, the essays contents were also examined as a part of the manipulation check. First, the differences in the affect words between the groups were analyzed by a *t*-test. For each day, EG participants used significantly more affect words (i.e. total affect words, positive and negative affect words) (Table 12).

In order to examine whether the instruction of each session worked or not, the EG essays were compared across sessions. The *t*-test analysis showed that there was a significant difference between the use of I in total on Day 1 and Day 3 where the instruction was to use the third-person pronoun in describing the event ($t(38) = 14.27, p < .001$). Besides, the use of the third-person words in total on the day three was significantly different from the level on the first day ($t(40) = -3.72, p < .001$).

Table 12. Affect Word Categories of the Conditions across Sessions

	EG		CG		<i>t</i>	<i>p</i>
	<i>N</i>	<i>M (SD)</i>	<i>N</i>	<i>M (SD)</i>		
Affect Words						
Day 1	41	9.66 (2.46)	43	3.21 (1.53)	-14.490	.000
Day 2	41	8.27 (2.38)	43	3.68 (1.42)	-10.805	.000
Day 3	41	10.60 (2.72)	43	3.54 (1.85)	-13.946	.000
Day 4	41	9.31 (2.68)	43	3.24 (1.86)	-12.121	.000
Positive Affect Words						
Day 1	41	3.05 (1.55)	43	2.00 (1.15)	-3.552	.001
Day 2	41	3.29 (1.50)	43	2.14 (.99)	-4.154	.000
Day 3	41	3.94 (1.87)	43	2.57 (1.51)	-3.698	.000
Day 4	41	3.06 (1.71)	43	2.11 (1.25)	-2.924	.004
Negative Affect Words						
Day 1	41	5.99 (2.35)	43	.98 (.77)	-13.253	.000
Day 2	40	4.22 (1.54)	43	1.35 (1.06)	-9.947	.000
Day 3	41	5.97 (2.41)	43	.86 (.85)	-13.101	.000
Day 4	41	5.49 (2.00)	42	.92 (.83)	-13.649	.000

On the fourth day of the sessions, as mentioned earlier, the EG participants wrote as telling someone. Therefore, as another manipulation check analysis, the EG's use of second-person singular words in total on the first day of the sessions were compared the one on the last day. The *t*-test analysis showed that there was a significant increase from the day one to the day four ($t(40) = -2.26, p < .05$).

All these analyses showed that the manipulation to separate two groups (i.e. EG and CG) from each other has worked well. Besides, the instructions of each day for the EG reinforced the use of different word categories. The word categories' more detailed descriptive in each day for each group is shown in Table 13.

Table 13. Descriptive of Some of the Word Categories

	Experimental Group (<i>N</i> = 41)				Control Group (<i>N</i> = 43)			
	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)
Word Count	286.85(116.32)	247.95 (73.39)	240.15 (87.47)	249.68 (107.69)	221.16 (78.05)	237.16 (68.21)	201.26 (74.47)	201.12 (80.03)
Words Per Sentence	11.77 (3.69)	12.79 (4.29)	10.51 (2.63)	10.63 (2.69)	12.14 (13.48)	8.93 (3.81)	13.97 (25.34)	12.22 (17.56)
Dictionary	93.42 (2.19)	93.02 (2.49)	92.25 (3.38)	93.01 (2.29)	87.72 (4.28)	89.40 (4.24)	88.54 (2.99)	88.20 (4.00)
Function	42.46 (4.51)	43.69 (4.15)	41.74 (5.75)	42.67 (6.05)	30.08 (4.95)	28.07 (5.78)	31.71 (7.24)	31.48 (7.04)
Pronouns	10.80 (3.04)	12.04 (2.78)	9.90 (3.45)	10.25 (2.92)	4.00 (1.85)	3.76 (1.62)	4.64 (2.66)	4.88 (2.04)
Personal Pronouns	5.58 (2.47)	5.48 (2.08)	3.58 (1.98)	5.27 (2.56)	1.68 (1.49)	2.16 (1.28)	2.12 (1.61)	2.04 (1.18)
I	2.96 (1.55)	2.53 (1.27)	0.16 (0.41)	2.61 (1.21)	0.53 (0.52)	0.92 (0.76)	0.56 (0.67)	0.44 (0.55)
We	0.13 (0.27)	0.18 (0.37)	0.03 (0.13)	0.23 (0.42)	0.03 (0.11)	0.28 (0.36)	0.11 (0.33)	0.05 (0.18)
You Singular	0.06 (0.15)	0.08 (0.20)	0.10 (0.37)	0.13 (0.35)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
You Plural	0.01 (0.08)	0.02 (0.08)	0.03 (0.13)	0.01 (0.06)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
She / He	2.12 (1.54)	2.43 (1.34)	3.11 (1.76)	1.98 (1.42)	0.97 (1.26)	0.78 (0.73)	1.08 (0.93)	1.34 (1.04)
They	0.30 (0.49)	0.25 (0.46)	0.15 (0.30)	0.30 (0.45)	0.15 (0.20)	0.18 (0.33)	0.37 (0.56)	0.21 (0.34)
Total I	3.92 (1.52)	3.75 (1.63)	0.26 (0.53)	3.46 (1.32)	1.30 (0.89)	1.43 (0.93)	1.21 (0.93)	1.09 (0.86)
Total You Singular	0.23 (0.32)	0.45 (0.45)	0.29 (0.54)	0.40 (0.50)	0.43 (0.56)	0.66 (0.74)	0.28 (0.43)	0.26 (0.39)
Total She / He	3.79 (1.97)	4.27 (1.62)	5.48 (2.38)	3.86 (1.92)	2.25 (1.52)	1.80 (1.15)	2.91 (1.47)	2.91 (1.48)
Total We	0.19 (0.34)	0.24 (0.47)	0.07 (0.24)	0.32 (0.52)	0.06 (0.17)	0.33 (0.35)	0.31 (0.57)	0.09 (0.23)
Total You Plural	0.01 (0.08)	0.02 (0.08)	0.03 (0.13)	0.01 (0.06)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Total They	0.36 (0.54)	0.30 (0.52)	0.19 (0.30)	0.35 (0.48)	0.17 (0.34)	0.20 (0.36)	0.43 (0.61)	0.23 (0.35)
Impersonal Pronouns	4.34 (1.75)	5.44 (2.02)	4.89 (1.93)	4.14 (1.52)	1.92 (1.15)	1.40 (0.97)	2.15 (1.47)	2.42 (1.61)

3.3 Impact of EW paradigm on outcomes

To test the main hypothesis for the differential impact off the EW on individual differences, 2 (EG and CG) x 2 (H-NA and L-NA) x 2 (Time) mixed-design ANOVAs were conducted for the scores of BDI, RTSQ, IES-R total and its subscales, and PTGI total and its subscales by excluding outliers if there was any.

3.3.1 BDI scores

There were two outliers excluded, namely one in the EG and another one in the CG. The mixed-design ANOVA was conducted and the results showed that there was a main effect of the NA groups ($F(1,73) = 20.61, p < .001, \eta_p^2 = .22$) and a marginally significant main effect of time ($F(1,73) = 3.74, p < .10, \eta_p^2 = .05$). It can be inferred that while each group showed slight decrease with time on BDI scores, there was a significant difference on the depression scores of the NA groups (for the L-NA, $M = 11.00, SD = .97$; for the H-NA, $M = 17.63, SD = 1.09$). No other main effect (condition) or interaction effect reached significance.

Although there was no other significant effect, looking at the means of each group showed a slight decrease for the H-NA participants in the EG in the depression scores with time more than any other group (Figure 3). However, at the end, the EW's effect on depression could not be replicated with this sample.

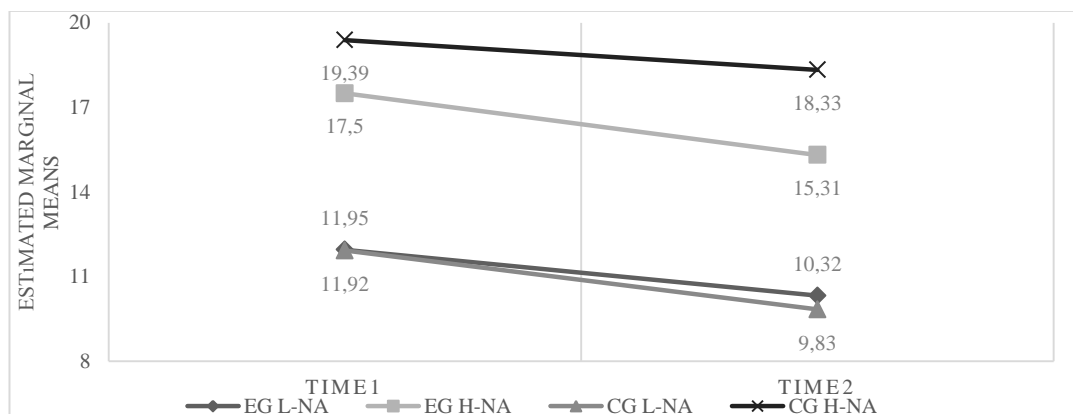


Fig. 3 BDI score changes of each group

3.3.2 RTSQ scores

The results of the same ANOVA conducted for the level of ruminative tendencies showed that there was a main effect of time ($F(1,75) = 4.36, p < .05, \eta_p^2 = .06$) which means that the rumination scores changed from pre-test ($M = 93.54, SD = 2.54$) to follow-up ($M = 89.63, SD = 2.49$). Additionally, there was also a significant difference between the NA groups ($F(1,75) = 11.30, p < .01, \eta_p^2 = .13$) indicating that the L-NA group had the lower rumination scores ($M = 83.75, SD = 3.12$) than the H-NA group ($M = 99.41, SD = 3.46$) (Figure 4).

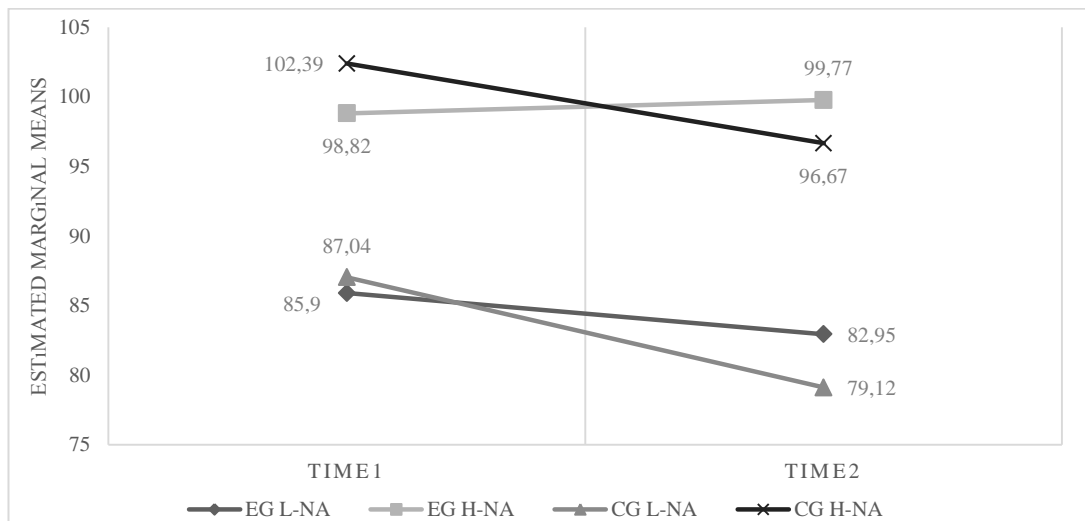


Fig. 4 RTSQ scores of each group across time

3.3.3 IES-R

The results of the ANOVA showed that there were a statistically significant main effect of time ($F(1,75) = 4.94, p < .05, \eta_p^2 = .06$), a main effect of the NA groups ($F(1,75) = 5.82, p < .05, \eta_p^2 = .07$), and a marginal interaction effect of time and the NA groups ($F(1,75) = 3.17, p < .10, \eta_p^2 = .04$) indicating that there was a significant difference between the scores of the NA groups at each time and the L-NA participants showed more decrease in their IES-R total scores from pre-test ($M =$

26.70, $SD = 2.40$) to follow-up time ($M = 21.21$, $SD = 2.05$) than the H-NA group participants who did not change in this measure from pre-test ($M = 31.59$, $SD = 2.67$) to follow-up ($M = 30.98$, $SD = 2.28$). The difference of each group across time was shown in Figure 5 despite the fact that there was no other significant effect as a result of the analysis.

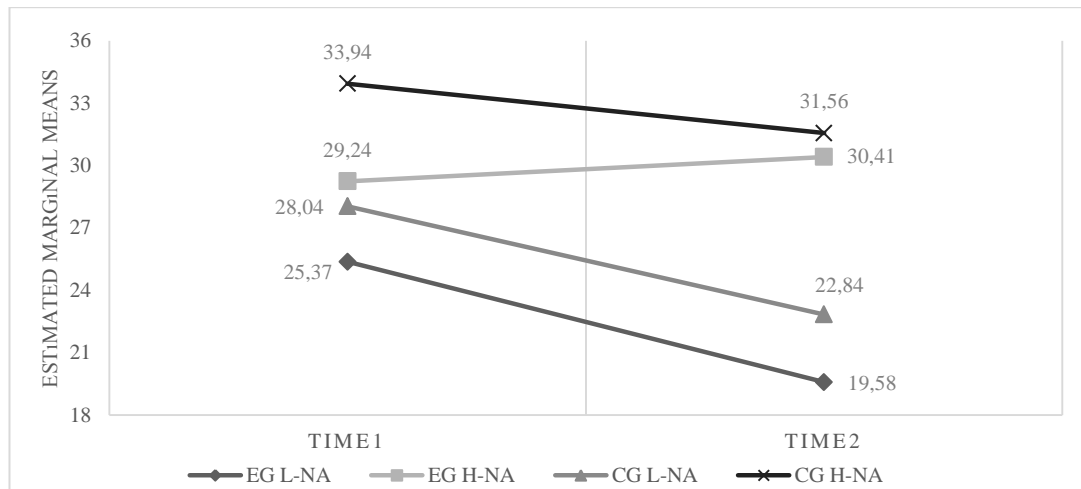


Fig. 5 IES-R scores of each group across time

3.3.3.1 Intrusion

The subscale of the IES-R was also analyzed separately by the same ANOVA matrix. There was no problem about the skewness value, but the kurtosis value was about 5 for only the L-NA participants within the EG at the follow-up assessment and there was no outlier. The group size was almost equal at both assessment times ($n_{baseline} = 20$ and $n_{follow-up} = 19$) and with respect to the knowledge that when the group sizes were equal, F -statistic was robust to this specific problem (Field, 2013), previously used ANOVA design was conducted for this outcome. The results showed that there was a main effect of time ($F(1,75) = 5.78$, $p < .05$, $\eta_p^2 = .07$) indicating that there was a significant difference between the intrusion score at pre-test ($M = 10.72$, $SD = .74$) and the follow-up scores ($M = 9.22$, $SD = .61$). There was also a

main effect of NA groups ($F(1,75) = 5.33, p < .05, \eta_p^2 = .07$) implying that there was a significant difference between the scores of NA groups (for the L-NA, $M = 8.57, SD = .81$; for the H-NA, $M = 11.37, SD = .90$).

Although any effect included the conditions reached significance level, there was a slight decrease for the H-NA participants in the EG whereas the same group within the CG showed almost no change (Figure 6).

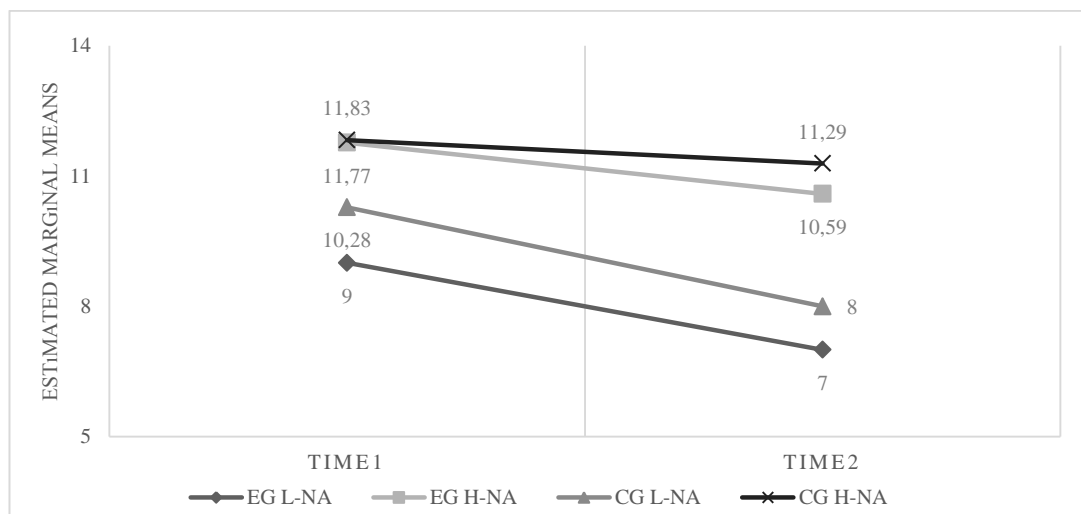


Fig. 6 Intrusion scores of each group across time

3.3.3.2 Avoidance

The same mixed-design ANOVA was also conducted for the avoidance subscale.

Even though none of the effects was significant, there were some differences among groups. For instance, the direction of the change for the NA groups within the EG was different in a way that the L-NA group showed a decrease whereas the H-NA one was towards to increase (Figure 7).

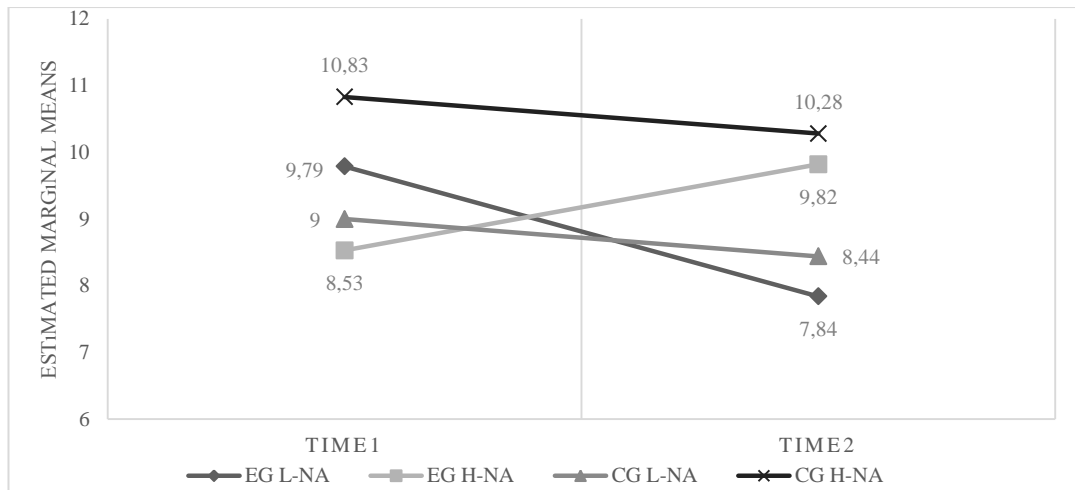


Fig. 7 Avoidance scores of each group across time

3.3.3.3 Hyperarousal

The results of the mixed-design ANOVA showed that the main effect of time was only marginally significant ($F(1,73) = 2.91, p < .10, \eta_p^2 = .04$). Besides, another marginal level significance of the interaction between time and the conditions were also found ($F(1,73) = 3.54, p < .10, \eta_p^2 = .05$). That marginal interaction pointed that the change in each group was slightly different from each other. Specifically, contrary to expectations, whereas the CG participants showed a decrease in their hyperarousal scores from pre-test ($M = 10.02, SD = .96$) to follow-up ($M = 8.20, SD = .84$), the EG showed almost no change (pre-test $M = 7.03, SD = 1.07$; follow-up $M = 7.12, SD = .93$).

In addition to these, there was a significant main effect of the NA groups ($F(1,73) = 9.94, p < .01, \eta_p^2 = .12$) indicating that the H-NA group had significantly higher hyperarousal scores ($M = 10.06, SD = .91$) than the L-NA group ($M = 6.13, SD = .85$). Although the effect was not significant, there was a tendency worth mentioning that the H-NA participants in EG condition were the only group who

showed an increase in their hyperarousal scores from pretest to follow-up time whereas all other groups were decreased in their hyperarousal scores (Figure 8).

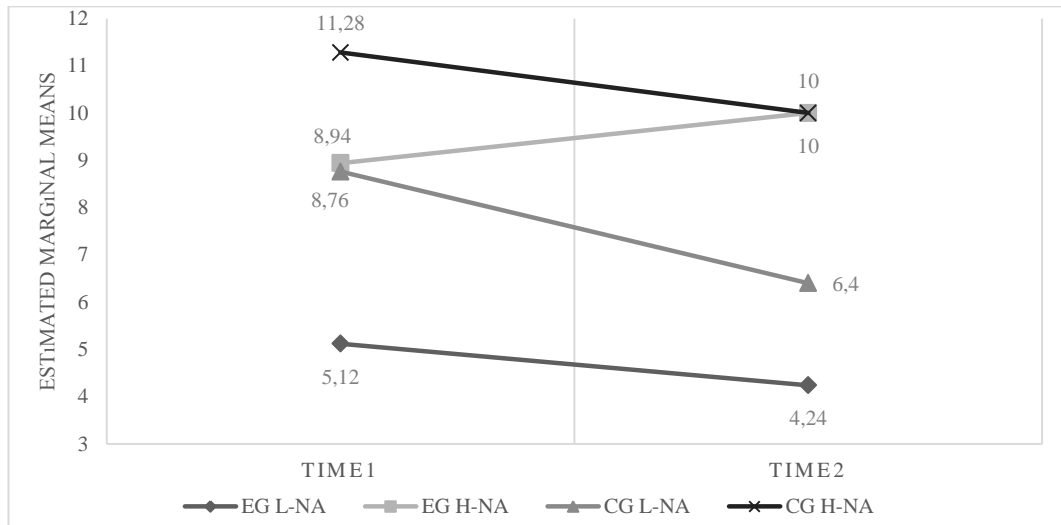


Fig. 8 Hyperarousal scores of each group across time

3.3.4 PTGI

The total score of PTGI were analyzed by the same mixed-design ANOVA. The results revealed that there was again a significant main effect of time ($F(1,74) = 9.65$, $p < .01$, $\eta_p^2 = .12$) indicating that there was an increase in PTGI scores with time.

Although no other effect reached significance level, the L-NA participants within the EG increased the most (Figure 9).

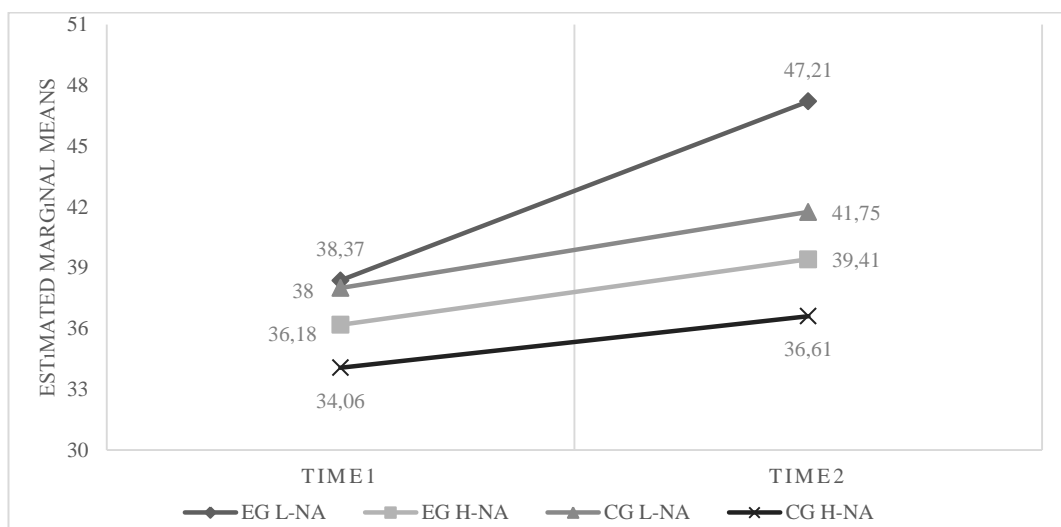


Fig. 9 PTGI total scores of each group across time

3.3.4.1 Relating to others

The results of the same mixed-design ANOVA indicated that there was only a significant main effect of time ($F(1,74) = 12.96, p < .001, \eta_p^2 = .15$). Looking at the mean scores of each group showed that the direction of the time effect was towards to increase (Figure 10).

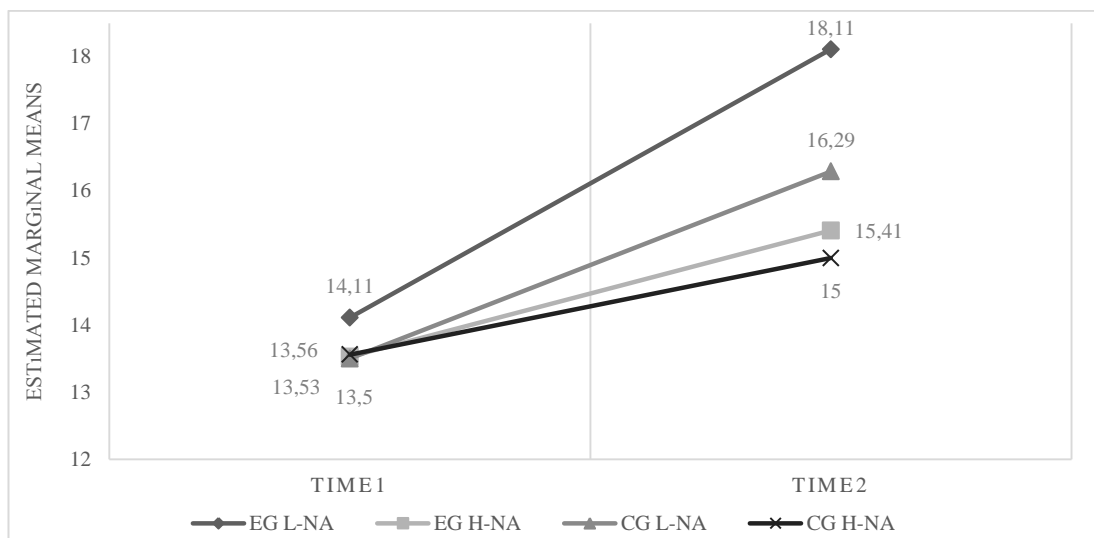


Fig. 10 Relating to others subscale scores of each group across time

3.3.4.2 Personal strength

As the results of the same ANOVA, the effect found was of time at the marginal level ($F(1,74) = 3.42, p < .10, \eta_p^2 = .04$) implying that the scores increased from pre-test ($M = 11.13, SD = .63$) to follow-up ($M = 12.15, SD = .56$). Also, there was a significant main effect of NA groups ($F(1,74) = 4.17, p < .05, \eta_p^2 = .05$) indicating that the L-NA group had the higher scores ($M = 12.72, SD = .71$) than the H-NA group ($M = 10.56, SD = .79$). For the change across time, refer to Figure 11.

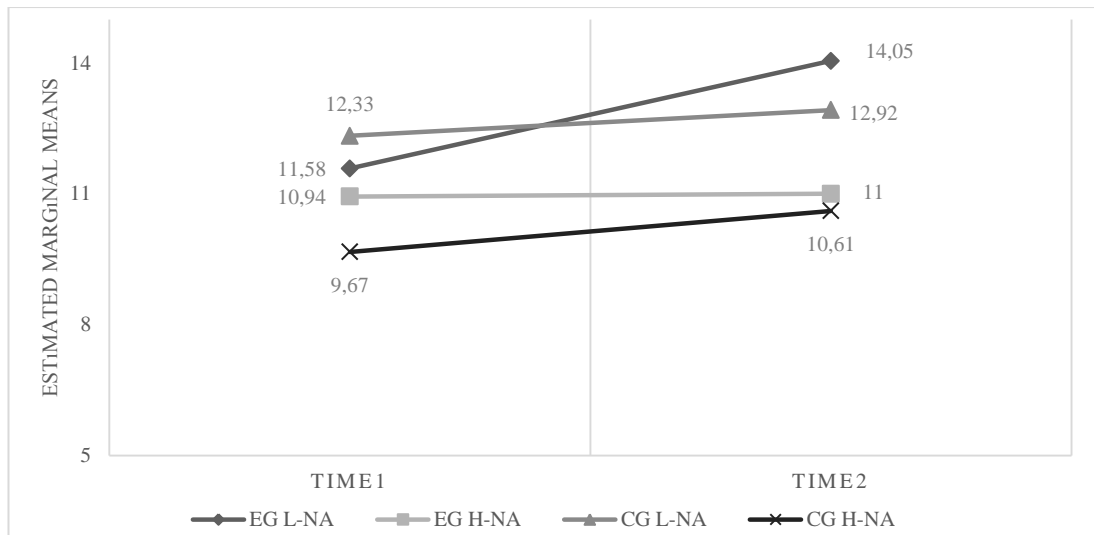


Fig. 11 Personal strength subscale scores of each group across time

3.3.4.3 Spiritual change

The same mixed-design ANOVA was conducted for this subscale. However, none of the effect reached significance (all $ps > .05$).

3.3.4.4 Appreciation of life

The ANOVA results revealed a significant main effect of time ($F(1,74) = 4.69, p < .05, \eta_p^2 = .06$) and a marginal main effect of the conditions ($F(1,74) = 2.85, p < .10, \eta_p^2 = .04$). These indicated that whereas the groups increased their scores with time, there was a difference between the CG ($M = 7.02, SD = .68$) and the EG ($M = 8.70, SD = .73$). Although the interaction effect between the time and the conditions did not reach significance level, the EG participants showed a tendency to increase in their scores (pre-test $M = 7.93, SD = .86$; follow-up $M = 9.48, SD = .73$) whereas the CG ones remained relatively same (pre-test $M = 6.84, SD = .80$; follow-up $M = 7.20, SD = .69$). For the change within each group, refer to the Figure 12.

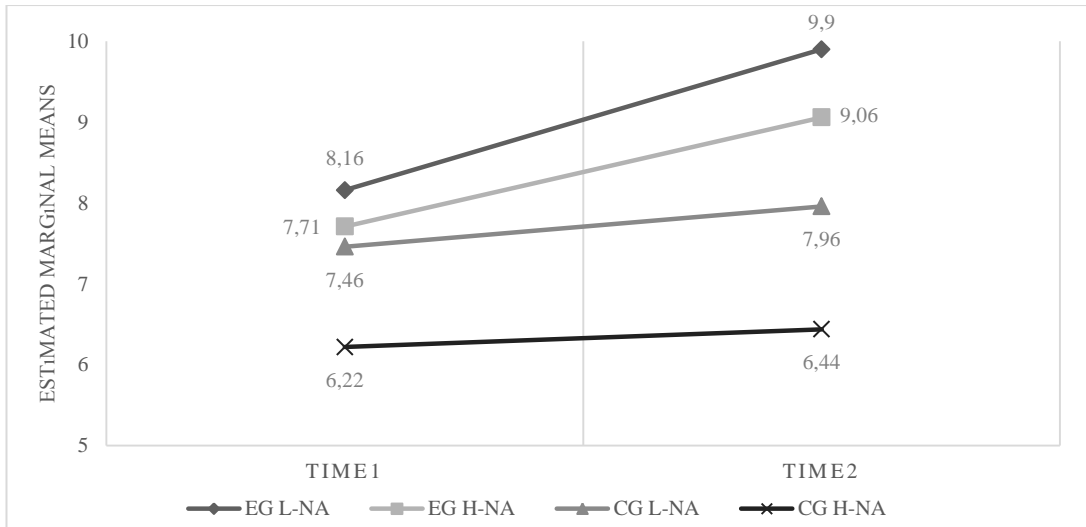


Fig. 12 Appreciation of life subscale scores of each group across time

The summary of the ANOVAs results can be seen in Table 14.

Table 14. The Results of the ANOVAs

	Btw-SS Effects						Within-SS Effects							
	Condition		NA Groups		Condition X NA Groups		Time		Time X Condition		Time X NA Groups		Time X Cond. X NA Groups	
	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2
BDI	.57	.01	20.61****	.22	.86	.01	3.74*	.05	.04	.00	.02	.00	.19	.00
Rumination	.01	.00	11.30***	.13	.03	.00	4.36**	.06	2.41	.03	.66	.01	.05	.00
IES-R Total	.94	.01	5.82**	.07	.00	.00	4.94**	.06	.29	.00	3.17*	.04	.57	.01
Intrusion	.39	.01	5.33**	.07	.10	.00	5.78**	.07	.02	.00	1.04	.01	.13	.00
Avoidance	.32	.00	.95	.01	.43	.01	.69	.01	.05	.00	2.31	.03	2.29	.03
Hyperarousal	2.67	.04	9.94***	.12	.49	.01	2.91*	.04	3.54*	.05	2.22	.03	.18	.00
PTGI Total	.65	.01	2.04	.03	.01	.00	9.65****	.12	.95	.01	1.32	.01	.56	.01
Relating to Others	.18	.00	.47	.01	.10	.00	12.96****	.15	.34	.01	1.52	.02	.08	.00
Personal Strength	.23	.00	4.17**	.05	.09	.00	3.42*	.04	.21	.00	.87	.01	1.60	.02
Spiritual Change	.11	.00	.54	.01	.41	.01	.16	.00	.59	.01	.40	.01	.60	.01
Appreciation of Life	2.85*	.04	1.02	.01	.13	.00	4.69**	.06	1.81	.02	.14	.00	.00	.00

**** $p < .001$; *** $p < .01$; ** $p < .05$; * $p < .10$

3.4 Further analyses

3.4.1 Multidimensional scale of perceived social support (MSPSS) as the covariate

For each scale, 2 (EG and CG) x 2 (H-NA and L-NA) x 2 (time) mixed-design ANCOVA with the total score of the MSPSS as the covariate was conducted.

For depression, the main effect of NA groups was still statistically significant ($F(1,71) = 17.80, p < .001, \eta_p^2 = .20$) and the time effect was again marginally significant ($F(1,71) = 3.77, p < .10, \eta_p^2 = .05$) after controlling for perceived social support which was significantly related to the outcome ($F(1,71) = 16.25, p < .001, \eta_p^2 = .19$). The b -value indicated that the higher the perceived social support statistically significantly lower the depression both at pre-test ($b = -.23, t(71) = -4.61, p < .001$) and at the time of follow-up assessment ($b = -.14, t(71) = -2.30, p < .05$).

After controlling for perceived social support, the main effect of NA groups remained significant ($F(1,73) = 9.73, p < .01, \eta_p^2 = .12$) and the interaction between time and the conditions became marginally significant on the rumination scores ($F(1,73) = 3.05, p < .10, \eta_p^2 = .04$). The inspection of the change revealed that the CG participants had lower scores at follow-up assessment ($M = 87.84, SD = 3.45$) than the one at the pre-test ($M = 95.19, SD = 3.49$) while the experimental group showed almost no change with time (pre-test $M = 91.90, SD = 3.74$; follow-up $M = 91.15, SD = 3.70$).

The same ANCOVA analysis for the IES-R measure's total score revealed that there were the main effects both of time ($F(1,73) = 10.75, p < .01, \eta_p^2 = .13$) and of the NA groups ($F(1,73) = 4.76, p < .05, \eta_p^2 = .06$) after controlling for perceived social support. Besides, the covariate was marginally related to the outcome ($F(1,73) = 3.65, p < .10, \eta_p^2 = .05$). After controlling for the covariate, the interaction effect between the NA groups and time reached the significance level ($F(1,73) = 5.67, p <$

.05, $\eta_p^2 = .07$) indicating that the L-NA participants had lower scores at the follow-up ($M = 20.97, SD = 2.07$) than they did at the pre-test ($M = 27.25, SD = 2.35$) whereas the H-NA ones showed no change (pre-test $M = 30.70, SD = 2.59$; follow-up $M = 30.79, SD = 2.29$). Moreover, the interaction between the covariate and time was also significant ($F(1,73) = 7.69, p < .01, \eta_p^2 = .10$). The b -value indicated that the higher the perceived social support statistically significantly lower the IES-R scores at only pre-test assessment ($b = -.32, t(73) = -2.70, p < .01$).

For the intrusion subscale, the same ANCOVA analysis showed that there was no longer significant main effect of time ($p > .05$) but the NA groups main effect was still at the significance level ($F(1,73) = 4.77, p < .05, \eta_p^2 = .06$) after controlling for perceived social support.

The ANCOVA analysis of the avoidance subscale revealed some statistically meaningful results while the previous analysis did not. There were a significant main effect of time ($F(1,73) = 14.01, p < .001, \eta_p^2 = .16$) and a significant interaction effect between time and the NA groups ($F(1,73) = 4.83, p < .05, \eta_p^2 = .06$) after controlling for perceived social support. Looking at the means of the NA groups at each time revealed that the direction of change was opposite for each one.

Specifically, whereas the L-NA participants decreased in their scores (pre-test $M = 9.57, SD = .83$; follow-up $M = 8.05, SD = .84$), the H-NA ones had the tendency to increase from pre-test ($M = 9.39, SD = .92$) to follow-up ($M = 10.10, SD = .93$).

Besides, the interaction between the time and the covariate was also significant ($F(1,73) = 13.21, p < .001, \eta_p^2 = .15$). The b -value indicated that the higher the perceived social support statistically significantly lower the avoidance at only pre-test assessment ($b = -.11, t(73) = -2.53, p < .05$).

For the hyperarousal subscale scores, the same ANCOVA analysis was conducted. The homogeneity of regression slope assumption was violated (interaction the conditions x CV: $F(1,69) = 4.26, p = .04, \eta_p^2 = .06$) for this measure. Although ANCOVA is considered as being robust to this violation (Hamilton, 1977), more accepted idea is to interpret the results with caution against the Type I error (Glashouwer, Timmerman, & de Jong, 2019; Field, 2013). The main effects of time ($F(1,71) = 3.12, p < .10, \eta_p^2 = .04$) and the NA groups ($F(1,71) = 7.97, p < .01, \eta_p^2 = .10$) did not change with respect to the significance level after controlling for perceived social support which was also significantly related to the outcome ($F(1,71) = 5.33, p < .05, \eta_p^2 = .07$). The *b*-value indicated that the higher the perceived social support statistically significantly lower the hyperarousal level both at pre-test ($b = -.12, t(71) = -2.51, p < .05$) and marginally at the follow-up ($b = -.07, t(71) = -1.72, p < .10$). Besides, there was another marginal main effect belonged to the conditions ($F(1,71) = 3.43, p < .10, \eta_p^2 = .05$) and the interaction effect between the time and the conditions reached significance level ($F(1,71) = 4.56, p < .05, \eta_p^2 = .06$) after controlling for perceived social support. The analysis also revealed another marginal level interaction effect between the time and the NA groups ($F(1,71) = 3.32, p < .10, \eta_p^2 = .05$) indicating that whereas the L-NA participants had lower scores at the follow-up time ($M = 5.36, SD = .85$) than at the pre-test ($M = 7.20, SD = .96$), the H-NA participants showed no change (pre-test $M = 9.76, SD = 1.03$; follow-up $M = 9.79, SD = .91$).

Considering the total scores of PTGI, after controlling for perceived social support which was significantly related to the outcome ($F(1,73) = 8.51, p < .01, \eta_p^2 = .10$), there was no longer any main effect of time ($p > .05$). The *b*-value indicated that the higher the perceived social support statistically significantly increase the post-

traumatic growth both at pre-test ($b = .29, t(73) = 2.42, p < .05$) and at the follow-up ($b = .34, t(73) = 2.87, p < .01$).

Additionally, the main effect of time on the PTGI's subscale Relating to Others was also no longer significant ($p > .05$) after controlling for perceived social support which was again statistically significantly related to the outcome ($F(1,73) = 15.21, p < .001, \eta_p^2 = .17$) in a way that the b -value indicated that the higher the perceived social support statistically significantly increase the subscale score both at pre-test ($b = .19, t(73) = 3.44, p < .001$) and at the follow-up ($b = .21, t(73) = 3.62, p < .001$).

The marginal main effect of time on the subscale Personal Strength which was revealed in the previous analysis was again not significant ($p > .10$) after controlling for the same covariate. Besides, the previously found main effect of the NA groups was only marginally significant ($F(1,73) = 3.35, p < .10, \eta_p^2 = .04$) and for the Spiritual Change subscale, the same ANCOVA analysis changed none of the previous results (all $ps > .05$).

The Appreciation of Life subscale was also analyzed by the same ANCOVA and there was no longer a significant main effect of time ($p > .05$) whereas the marginal main effect of the conditions remained ($F(1,73) = 3.54, p < .10, \eta_p^2 = .05$). The b -value indicated that the higher the perceived social support statistically significantly increase the subscale score only at pre-test ($b = .07, t(73) = 2.01, p < .05$).

The summary of the results of ANCOVA analyses are shown in Table 15.

Table 15. The Results of the ANCOVAs

	Btw-SS Effects								Within-SS Effects									
	Condition		NA Groups		Condition X NA Groups		MSPSS (Covariate)		Time		Time X MSPSS		Time X Condition		Time X NA Groups		Time X Cond. X NA Groups	
	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2
BDI	1.65	.02	17.80****	.20	1.32	.02	16.25****	.19	3.77*	.05	2.27	.03	.00	.00	.20	.00	.21	.00
Rumination	.00	.00	9.73****	.12	.03	.00	1.03	.01	2.12	.03	.91	.01	3.05*	.04	1.11	.02	.01	.00
IES-R Total	1.24	.02	4.76**	.06	.00	.00	3.65*	.05	10.75****	.13	7.69****	.10	.96	.01	5.67**	.07	.44	.01
Intrusion	.44	.01	4.77**	.06	.05	.00	1.74	.02	2.68	.04	1.11	.02	.01	.00	1.69	.02	.24	.00
Avoidance	.42	.01	.66	.01	.47	.01	1.31	.02	14.01****	.16	13.21****	.15	.42	.01	4.83**	.06	2.49	.03
Hyperarousal	3.43*	.05	7.97****	.10	.43	.01	5.33**	.07	3.12*	.04	1.88	.03	4.56**	.06	3.32*	.05	.10	.00
PTGI Total	1.36	.02	1.02	.01	.01	.00	8.51****	.10	.11	.00	.19	.00	1.03	.01	1.12	.02	.56	.01
Relating to Others	.81	.01	.01	.00	.14	.00	15.21****	.17	.22	.00	.17	.00	.39	.01	1.31	.02	.08	.00
Personal Strength	.38	.01	3.35*	.04	.09	.00	1.42	.02	.48	.01	.07	.00	.18	.00	.92	.01	1.57	.02
Spiritual Change	.05	.00	.35	.01	.41	.01	.68	.01	.21	.00	.33	.01	.68	.01	.28	.00	.60	.01
Appreciation of Life	3.54*	.05	.56	.01	.13	.00	2.73	.04	.06	.00	.62	.01	2.02	.03	.06	.00	.00	.00

**** $p < .001$; *** $p < .01$; ** $p < .05$; * $p < .10$

3.4.2 Post-session and experiment evaluation questionnaires

Considering these measures, although the differences between the conditions were analyzed and reported as a part of the manipulation check, the possible effects of both the NA groups and any interactions were examined. For positive affect reported at the post-session evaluation questionnaires of each day, 2 (EG and CG) x 2 (NA Groups) x 4 (day) mixed-design ANOVA was conducted by computing and using the mean scores. The results revealed a significant 3-way interaction between day, the conditions, and the NA groups ($F(3,225) = 3.86, p < .05, \eta_p^2 = .05$) indicating that the interaction among the day and the conditions was different between the L-NA and the H-NA groups (Figure 13 and Figure 14, respectively). The simple contrast revealed that the day four was the one that was significantly different from each day (the first day, $F(1,75) = 7.91, p < .01, \eta_p^2 = .10$; the second day, $F(1,75) = 5.92, p < .05, \eta_p^2 = .07$, the third day, $F(1,75) = 8.16, p < .01, \eta_p^2 = .10$).

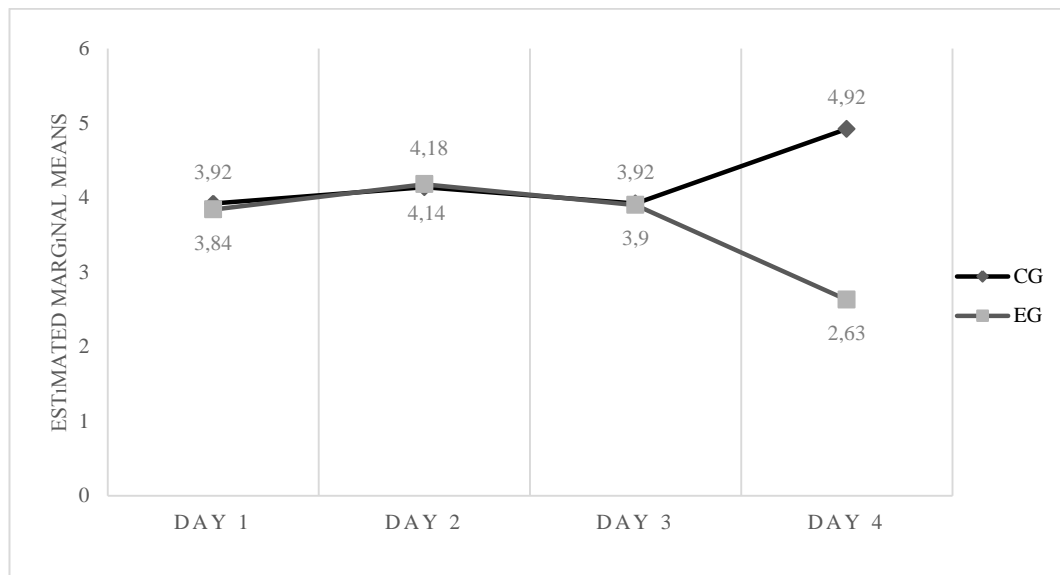


Fig. 13 The interaction between the day and the conditions based on the L-NA

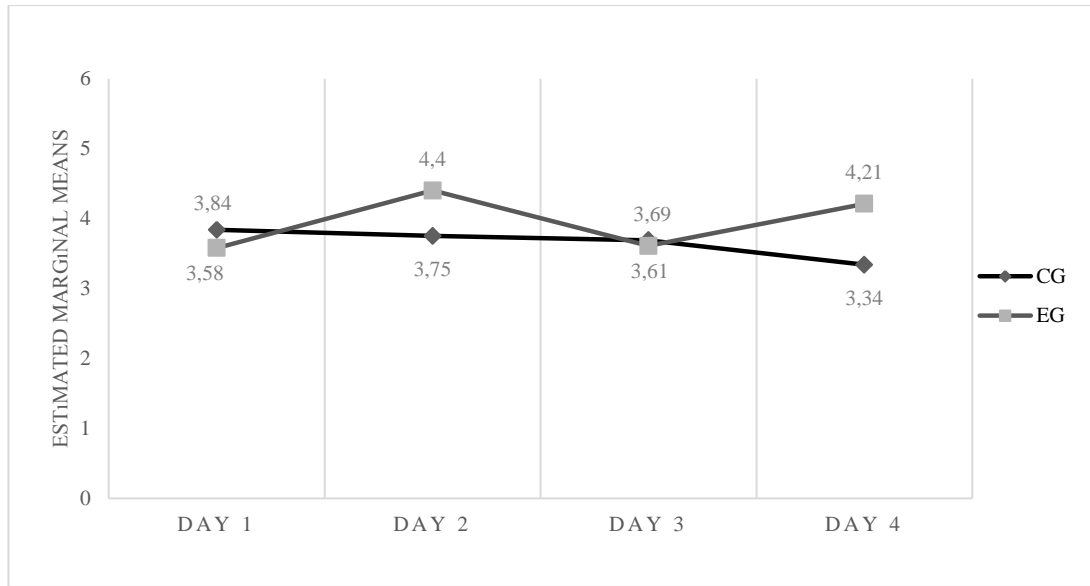


Fig. 14 The interaction between the day and the conditions based on the H-NA

Additionally, the same ANOVA was conducted with the mean scores of post-session negative affect of each day. The sphericity assumption was violated; therefore, the Greenhouse-Geiser correction was used. The results showed that there was a main effect of the day ($F(2.66, 199.29) = 10.28, p < .001, \eta_p^2 = .12$) and another one of the NA groups ($F(1,75) = 14.23, p < .001, \eta_p^2 = .16$). In addition to these, there was a significant interaction effect between the day and the condition ($F(2.66, 199.29) = 4.16, p < .01, \eta_p^2 = .05$). The results of the simple contrast revealed significant interactions when comparing the conditions at the first day to each of the other days (for the day 2, $F(2.66, 199.29) = 5.02, p < .05, \eta_p^2 = .06$; for the day 3, $F(2.66, 199.29) = 8.02, p < .01, \eta_p^2 = .10$; for the day 4, $F(2.66, 199.29) = 6.66, p < .05, \eta_p^2 = .08$). The difference between the conditions across sessions is shown in Figure 15.

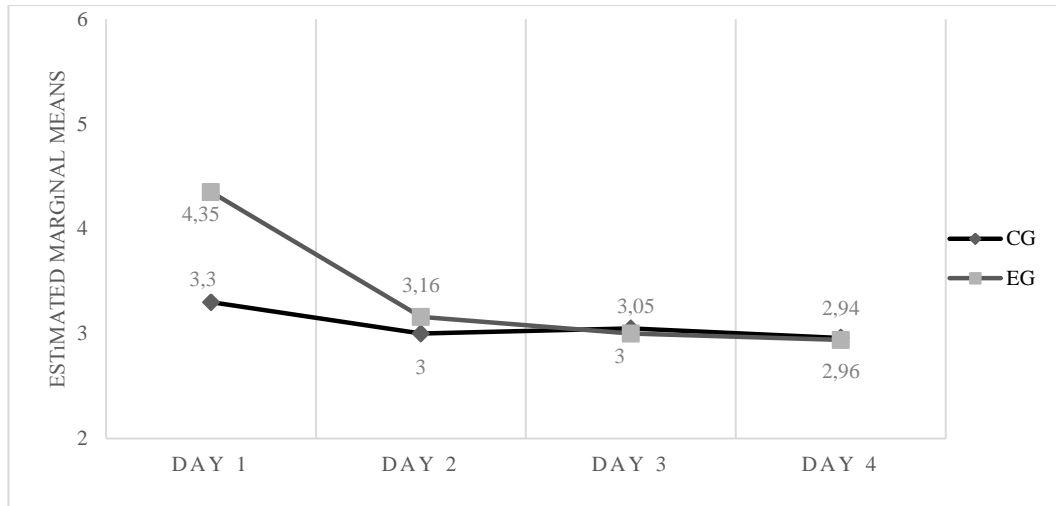


Fig. 15 Difference in negative affect reported by the conditions across sessions

For the post-session physical symptoms, at first, four outliers (i.e. two in the EG and two in the CG) were excluded and then the same ANOVA was conducted. Since the sphericity assumption was violated, the Greenhouse-Geiser correction was used. The results showed that there were significant main effects of the day ($F(2.16, 149.18) = 11.54, p < .001, \eta_p^2 = .14$) and the simple contrast showed that the participants reported significantly more physical symptoms in the first day than they did both in the second ($F(1,69) = 11.64, p < .01, \eta_p^2 = .14$) and in the third ($F(1,69) = 18.31, p < .001, \eta_p^2 = .20$) as well as in the fourth session ($F(1,69) = 17.65, p < .001, \eta_p^2 = .20$). Besides, although the interaction effect between the day and the condition failed to reach significance level, the simple contrast revealed a marginally significant result for the interaction when comparing the second day and the first day ($F(1,69) = 3.18, p < .10, \eta_p^2 = .04$) indicating that while the control group reported relatively same level of physical symptoms (for the first day, $M = 2.11, SD = .19$; for the second day, $M = 1.90, SD = .15$), the EG participants showed a decrease from the first day ($M = 2.06, SD = .18$) to the second one ($M = 1.41, SD = .15$).

Additionally, there was also a significant main effect of the NA groups ($F(1,69) =$

12.50, $p < .001$, $\eta_p^2 = .15$) implying that the H-NA participants reported more physical symptoms ($M = 1.99$, $SD = .12$) than the L-NA ones ($M = 1.43$, $SD = .11$).

Based on the post-experiment evaluation questionnaires, there was no significant interaction (all $ps > .05$). However, in addition to the differences among the conditions reported before as the manipulation check, the results revealed marginally significant main effect of the NA groups both for the current impact of the written topic ($F(1,76) = 3.66$, $p < .10$, $\eta_p^2 = .05$) and also for the feeling happy last four days ($F(1,76) = 2.81$, $p < .10$, $\eta_p^2 = .04$). These results indicated that the L-NA participants felt less of the current impact ($M = 5.20$, $SD = .40$) and happier ($M = 5.36$, $SD = .31$) than the H-NA ones (the current impact, $M = 6.31$, $SD = .42$; feeling happy, $M = 4.59$, $SD = .33$).

3.4.3 Analyses based on the loss type

In order to examine the possible effects of specific types of loss, the written ones were categorized. Specifically, all of death related losses classified as “death” ($n = 14$) ignoring the cause of it. Additionally, the topics which were end of a relationship, being cheated on, family dispute, leaving home, denigration, and end of a friendship were classified as “relationship” ($n = 15$). Others were left as they were and not included in the further analysis. By this grouping, 2 (loss type) x 2 (time) ANOVAs and 2 (loss type) x 2 (time) ANCOVAs with MSPSS as the covariate were conducted. Only the results reached significance were reported below.

Considering the results of the ANOVAs, there was no significant interaction effect between the loss type and time (all $ps > .05$). Like previous analyses, there were significant main effects of time both on the intrusion subscale of the IES-R measure ($F(1,27) = 5.24$, $p < .05$, $\eta_p^2 = .16$), and on the total score of PTGI ($F(1,27)$

= 5.21, $p < .05$, $\eta_p^2 = .16$), as well as on its subscale the relating to others ($F(1,27) = 6.01$, $p < .05$, $\eta_p^2 = .18$). Besides, the main effects of time were at the marginal level on the IES-R total score ($F(1,27) = 3.29$, $p < .10$, $\eta_p^2 = .11$) and the appreciation of life ($F(1,27) = 3.23$, $p < .10$, $\eta_p^2 = .11$). Additionally, there were only marginally significant main effects of the loss type on the IES-R total score ($F(1,27) = 3.05$, $p < .10$, $\eta_p^2 = .10$) and its subscale intrusion ($F(1,27) = 3.36$, $p < .10$, $\eta_p^2 = .11$), and the appreciation of life subscale of PTGI ($F(1,27) = 3.62$, $p < .10$, $\eta_p^2 = .12$). The results indicated that the participants who wrote about death had lower scores on the IES-R in total and the intrusion subscale and higher scores on the appreciation of life subscale both at pre-test and at the follow-up than the ones wrote about relationship related losses (Figure 16).

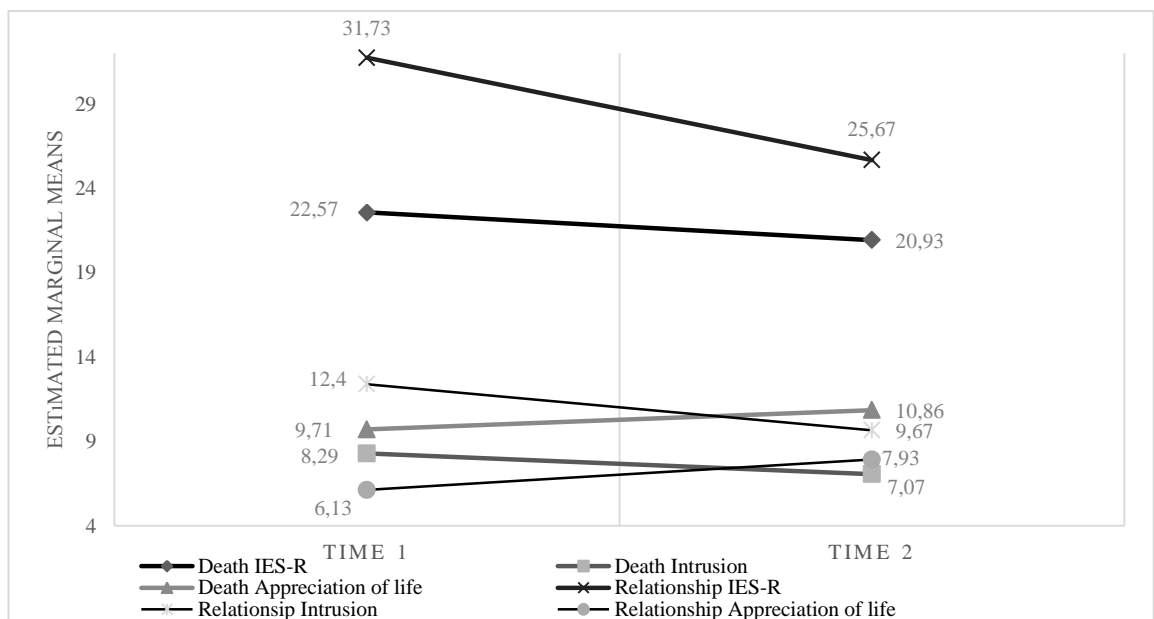


Fig. 16 Comparison of loss types

With respect to the results of the ANCOVAs mentioned above, there was again no significant interaction effect between the loss type categories and time (all $ps > .05$). However, similar results like previous ANOVA were found. The main effect of the loss type on the intrusion subscale was rounded off to $.10$ ($F(1,26) = 2.87$, $p = .102$, $\eta_p^2 = .10$) which indicated only a tendency after controlling for perceived social

support. Similarly, the time effect on the relating to others subscale became marginal ($F(1,26) = 3.93, p < .10, \eta_p^2 = .13$). Also, the level of perceived social support had a significant effect on the level of relating to others scores ($F(1,26) = 4.22, p < .10, \eta_p^2 = .14$) and was found to be in relation with the outcome measure at only baseline ($b = .23, t(26) = 2.67, p < .05$) indicating that higher the perceived social support increased the scores of this measure only at baseline. The similar findings were also reached for the depression scores. There was a significant interaction effect of time and perceived social support ($F(1,26) = 11.43, p < .01, \eta_p^2 = .31$) which had a marginal level effect on the outcome ($F(1,26) = 3.11, p < .10, \eta_p^2 = .11$). It was found that the perceived social support levels were in relation with the depression levels at baseline ($b = -.28, t(26) = -2.81, p < .01$) indicating that higher levels of perceived social support decreased the depression scores at only baseline.

The new finding apart from the previously conducted ANOVAs has been seen for the rumination scores. It was found that the main effect of the loss type groups was marginally significant for the rumination scale ($F(1,26) = 3.53, p < .10, \eta_p^2 = .12$) after controlling for perceived social support. This result indicated that the rumination level of the participants who wrote about death was higher ($M = 98.87, SD = 5.28$) than the ones who wrote about loss of a relationship ($M = 84.96, SD = 5.10$). There was also a significant main effect of time ($F(1,26) = 6.28, p < .05, \eta_p^2 = .19$) and a significant interaction effect of time and perceived social support on rumination ($F(1,26) = 6.51, p < .05, \eta_p^2 = .20$) after controlling for perceived social support which was found to be in a negative relation with the rumination levels at only baseline ($b = -.57, t(26) = -2.22, p < .05$) indicating that higher the perceived social support levels decreases the level of rumination at the baseline.

3.4.4 Perceived benefit

One open-ended question was asked to the participants in both group regarding their perceptions on the experience of writing for four days. The answers were coded as “yes” and “others” which represented the answers both the “neutral” and “uncertain” categories as well as the negative perceptions. A chi-square analysis was conducted to see whether there was any difference both between the EG and the CG, or not. The results indicated that each group was similar to each other ($p > .05$). There was also no significant difference between the NA groups within the EG condition ($p > .05$). Specifically, while one participant did not answer the question, 13 participants out of 19 who were in the L-NA group, and 15 out of 21 H-NA participants have reported that they have benefitted the intervention while six participants in each group reported otherwise. There was no answer indicated harmful effect.

3.5 Word categories analyses

Considering the word usage, the difference between the first day and the last one was analyzed with respect to the selected LIWC categories which were affect words in total, positive affect words, negative affect words and its subcategories anger, anxiety, and sadness, I as the pronoun and the total use of I, cognitive mechanism words, insight, causality, and inhibition words by 2 (EG and CG) x 2 (NA groups) x 2 (day 1 and day 4) ANOVAs. Only the categories had the significant results were reported below.

Based on the I-talk, the ANOVA results showed no significant interaction ($ps > .05$). For analyzing I in total, one outlier in the CG was excluded. The results showed a significant main effect of the day ($F(1,79) = 5.77, p < .05, \eta_p^2 = .07$) indicating that the participants decreased their use of total I from the first day ($M = 2.58, SD = .14$)

to the last one ($M = 2.25, SD = .12$). Besides, there was also a significant main effect of the condition ($F(1,79) = 134.64, p < .001, \eta_p^2 = .63$) showing that the EG participants used significantly more I in total ($M = 3.69, SD = .16$) than the CG participants did ($M = 1.14, SD = .16$). The results of the analysis of I as the pronoun showed very similar results except the main effect of the day was only marginal ($F(1,80) = 3.68, p < .10, \eta_p^2 = .04$) while the condition effect was still highly significant ($F(1,80) = 139.44, p < .001, \eta_p^2 = .64$). The difference between the conditions was same in a way that the EG participants used more I ($M = 2.79, SD = .14$) than the CG participants ($M = .47, SD = .14$) and all participants used more I in the first day ($M = 1.75, SD = .13$) than they did in the last one ($M = 1.52, SD = .10$).

In addition to these analyses, the affect words category was analyzed by the same ANOVA. The results revealed no significant result except a main effect of the condition ($F(1,80) = 296.20, p < .001, \eta_p^2 = .79$), which was expected as a result of the instructions and reported previously as a part of the manipulation check.

However, p value of the interaction effect between the conditions and the NA groups were rounded off .10 which indicated a tendency ($F(1,80) = 2.73, p = .103, \eta_p^2 = .03$). Specifically, while the H-NA participants with the EG used more affect words ($M = 9.74, SD = .36$) than the low ones within the same group ($M = 9.22, SD = .37$), the L-NA participants were the ones who used more of those words ($M = 3.52, SD = .33$) than the H-NA ones within the CG ($M = 2.82, SD = .39$). Moreover, the positive affect word category was analyzed and the results again showed no significant interaction effect but a significant main effect of the condition ($F(1,80) = 17.88, p < .001, \eta_p^2 = .18$) and another one for the NA groups ($F(1,80) = 6.33, p < .05, \eta_p^2 = .07$) were revealed. Expectedly, the CG used less positive affect words ($M = 2.01, SD$

= .18) than the EG ($M = 3.07$, $SD = .18$) and the L-NA group used them more ($M = 2.85$, $SD = .17$) than the H-NA one ($M = 2.23$, $SD = .18$).

Additionally, after excluding one outlier in the CG, the same ANOVA was conducted to see the change in the use of negative affect words in total. The results revealed that there was a significant main effect of the conditions ($F(1,79) = 276.26$, $p < .001$, $\eta_p^2 = .78$), expectedly again. However, for this category, there were also one statistically significant interaction between the conditions and the NA groups ($F(1,79) = 5.76$, $p < .05$, $\eta_p^2 = .07$) and one marginal level interaction effect between the day and the NA groups ($F(1,79) = 3.09$, $p < .10$, $\eta_p^2 = .04$). The significant interaction effect indicated that whereas the L-NA participants in the CG used more negative affect words ($M = 1.06$, $SD = .26$) than the H-NA ones in the same condition ($M = .78$, $SD = .32$), the opposite case was presented in the EG. The H-NA ones in the EG were the ones who used more negative affect words ($M = 6.29$, $SD = .29$) than the L-NA ones ($M = 5.17$, $SD = .29$). Besides, with respect to the marginal interaction between the day and the NA groups, the results indicated that the H-NA participants decreased in their use of negative words from the first day ($M = 3.85$, $SD = .27$) to the last one ($M = 3.22$, $SD = .25$) while the L-NA ones showed a tendency to increase with time (for the first day, $M = 3.07$, $SD = .25$; for the fourth day, $M = 3.15$, $SD = .23$).

For the subcategories of negative affect words, the results were similar. Specifically, there was a main effect of condition for both anger ($F(1,78) = 45.19$, $p < .001$, $\eta_p^2 = .37$), anxiety ($F(1,77) = 41.67$, $p < .001$, $\eta_p^2 = .35$), and sadness ($F(1,79) = 127.90$, $p < .001$, $\eta_p^2 = .62$) and the main effects of the day were statistically significant for anxiety ($F(1,77) = 6.33$, $p < .05$, $\eta_p^2 = .08$) and marginal for anger ($F(1,78) = 3.41$, $p < .10$, $\eta_p^2 = .04$). All condition effects were expected as

the result of the manipulation. Also, the main effect of the day on both anger-related and anxiety-related words indicated that the participants had the tendency to decrease in their use of those words from the day one (for anger, $M = .61$, $SD = .08$; for anxiety, $M = .52$, $SD = .07$) to the day four (for anger, $M = .47$, $SD = .08$; for anxiety, $M = .39$, $SD = .06$). Besides, there was a significant interaction between the conditions and the NA groups on the sadness-related words ($F(1,79) = 5.89$, $p < .05$, $\eta_p^2 = .07$) indicating that the L-NA participants in the CG used higher number of those words ($M = .54$, $SD = .18$) than the H-NA ones in the CG ($M = .30$, $SD = .22$) whereas in the EG, the H-NA participants were the ones who used more of them ($M = 3.05$, $SD = .20$; the L-NA, $M = 2.32$, $SD = .20$). Based on the analysis of anxiety, a marginal three-way interaction between the day, the NA groups, and the conditions was also revealed ($F(1,77) = 3.89$, $p < .10$, $\eta_p^2 = .05$) indicating that the interaction among the day and the NA groups was different across the conditions (Figure 17 and 18, respectively). For all the descriptive information related to the affect word categories in each day across groups, refer to the Table 16.

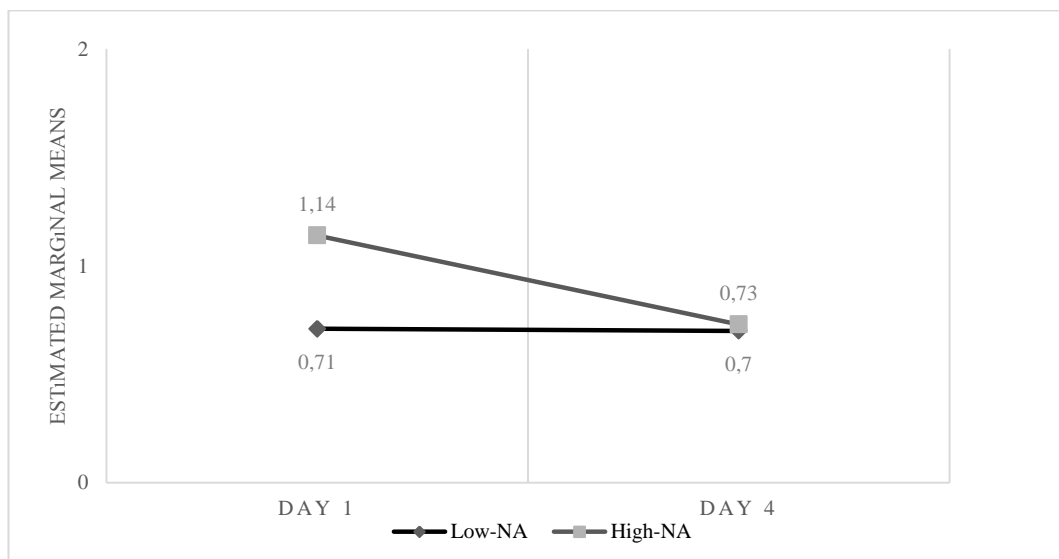


Fig. 17 Anxiety words of the NA groups within EG

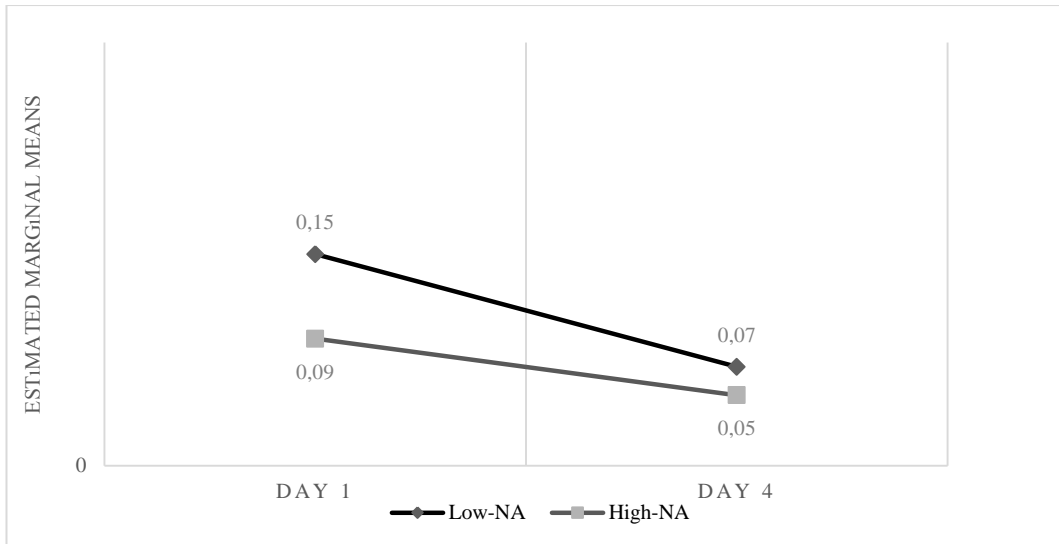


Fig. 18 Anxiety words of the NA groups within CG

Table 16. Affect Words across Groups

	Experimental Group								Control Group							
	H-NA (<i>N</i> = 21)				L-NA (<i>N</i> = 20)				H-NA (<i>N</i> = 18)				L-NA (<i>N</i> = 25)			
	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)
Affect Words	10.28 (2.43)	8.78 (1.70)	10.81 (2.93)	9.19 (2.88)	9.01 (2.38)	7.74 (2.88)	10.39 (2.55)	9.43 (2.51)	2.74 (1.35)	3.54 (1.15)	2.84 (1.57)	2.91 (1.78)	3.56 (1.59)	3.78 (1.60)	4.05 (1.90)	3.48 (1.91)
Positive affect words	2.70 (1.44)	3.39 (1.44)	3.73 (1.75)	2.72 (1.86)	3.43 (1.60)	3.18 (1.60)	4.17 (2.00)	3.42 (1.50)	1.62 (1.06)	2.12 (0.99)	2.01 (1.13)	1.86 (1.08)	2.27 (1.15)	2.15 (1.01)	2.98 (1.64)	2.29 (1.35)
Negative Affect Words	6.85 (2.33)	4.66 (1.63)	6.27 (2.24)	5.73 (2.36)	5.09 (2.08)	4.05 (1.93)	5.67 (2.60)	5.25 (1.56)	0.87 (0.84)	1.23 (0.96)	0.78 (0.70)	0.95 (1.15)	1.05 (0.73)	1.43 (1.13)	0.92 (0.95)	1.06 (0.95)
Anxiety	1.14 (.90)	.62 (.72)	1.00 (.79)	.72 (.75)	.71 (.65)	.58 (.77)	.86 (.80)	.70 (.71)	.17 (.41)	.27 (.34)	.18 (.37)	.08 (.21)	.14 (.20)	.16 (.31)	.10 (.19)	.11 (.32)
Anger	1.07 (.77)	.67 (.59)	1.00 (.90)	.93 (1.15)	1.14 (1.20)	.67 (.75)	1.17 (1.43)	.88 (.93)	.13 (.24)	.28 (.41)	.06 (.13)	.08 (.26)	.13 (.32)	.14 (.33)	.06 (.19)	0.00 (0.00)
Sadness	3.17 (1.87)	2.44 (1.62)	2.97 (1.40)	2.92 (1.53)	2.21 (1.15)	2.02 (.81)	2.74 (1.22)	2.43 (.95)	.28 (.31)	.57 (.66)	.40 (.46)	.47 (.65)	.56 (.51)	.90 (.76)	.47 (.60)	.52 (.57)

Regarding the cognitive word categories, the same ANOVA was conducted for each one. The results revealed no significant effect on inhibition words (all $ps > .05$) while the main effect of the conditions was significant both on the insight words ($F(1,80) = 66.39, p < .001, \eta_p^2 = .45$) and on the cognitive word category in total ($F(1,80) = 79.95, p < .001, \eta_p^2 = .50$) indicating that the EG participants used more of these two word categories in their essays (for cognitive words, $M = 24.27, SD = .55$; insight, $M = 5.20, SD = .22$) than the CG participants (for cognitive words, $M = 17.30, SD = .55$; insight, $M = 2.65, SD = .22$). Besides, a marginally significant three-way interaction between the day, the NA groups, and the conditions on the use of causality words was revealed ($F(1,80) = 3.54, p < .10, \eta_p^2 = .04$). This finding indicated that the interaction between the day and the NA groups was different among the conditions and the inspection of that difference revealed some contrasting findings. Namely, the L-NA participants in the CG used almost equal number of causality words in each day (for the first day, $M = 3.31, SD = .26$; the fourth day, $M = 3.27, SD = .29$) while the H-NA ones in the same group showed a tendency to increase in their use of those words from the day one ($M = 2.73, SD = .30$) to the day four ($M = 3.24, SD = .34$). On the other hand, the opposite tendency was seen for the EG in a way that the L-NA participants in this group increased their causality words usage (for the first day, $M = 2.89, SD = .29$; the fourth day, $M = 3.54, SD = .32$) whereas the H-NA ones showed a tendency to decrease from the first day ($M = 3.28, SD = .28$) to the fourth one ($M = 2.93, SD = .31$).

For all the descriptive information related to the cognitive mechanism word categories in each day across groups, refer to the Table 17. Also, the ANOVA results of the all word categories is shown in Table 18.

Table 17. Cognitive Mechanism Words across Groups

	Experimental Group								Control Group							
	H-NA (<i>N</i> = 21)				L-NA (<i>N</i> = 20)				H-NA (<i>N</i> = 18)				L-NA (<i>N</i> = 25)			
	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)	Day 1 <i>M</i> (SD)	Day 2 <i>M</i> (SD)	Day 3 <i>M</i> (SD)	Day 4 <i>M</i> (SD)
Cognitive Mechanisms	24.81 (5.03)	25.43 (4.67)	24.95 (3.83)	24.89 (4.11)	23.70 (4.06)	24.78 (2.24)	25.98 (4.17)	23.65 (4.41)	17.10 (4.52)	15.58 (4.60)	20.56 (5.22)	17.10 (4.72)	17.15 (3.45)	15.57 (4.19)	18.90 (4.81)	17.85 (4.31)
Insight	5.10 (1.95)	5.43 (2.37)	5.40 (2.13)	5.90 (2.22)	4.92 (1.83)	5.53 (1.65)	5.97 (1.95)	4.89 (1.48)	2.87 (1.75)	2.02 (1.95)	3.47 (1.81)	2.47 (2.03)	2.57 (1.39)	2.40 (1.54)	2.25 (1.50)	2.67 (1.48)
Causality	3.28 (1.36)	2.99 (1.18)	3.22 (1.53)	2.93 (1.41)	2.89 (1.22)	3.40 (1.28)	3.37 (1.38)	3.54 (1.15)	2.73 (1.54)	2.72 (1.42)	3.41 (1.39)	3.24 (1.60)	3.31 (1.06)	2.59 (1.49)	3.84 (1.75)	3.29 (1.52)
Inhibition	0.45 (0.48)	0.47 (0.56)	0.64 (0.48)	0.39 (0.46)	0.39 (0.47)	0.22 (0.30)	0.57 (0.54)	0.46 (0.46)	0.46 (0.52)	0.21 (0.41)	0.29 (0.44)	0.25 (0.35)	0.37 (0.40)	0.16 (0.25)	0.30 (0.40)	0.28 (0.37)

Table 18. The Results of the ANOVAs of Word Categories

Day 1 & Day 4	Btw-SS Effects						Within-SS Effects							
	Condition		NA Groups		Condition X NA Groups		Time		Time X Condition		Time X NA Groups		Time X Cond. X NA Groups	
	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2	<i>F</i>	η_p^2
I	139.44****	.64	1.76	.02	.30	.00	3.68*	.04	1.12	.01	.34	.00	.16	.00
Total I	134.64****	.63	.27	.00	.04	.00	5.77**	.07	.86	.01	1.20	.02	.02	.00
Affect Words	296.20****	.79	.06	.00	2.73	.03	.23	.00	.40	.01	1.10	.01	2.18	.03
Positive Affect	17.88****	.18	6.33**	.07	.13	.00	.14	.00	.11	.00	.12	.00	.06	.00
Negative Affect	276.26****	.78	2.13	.03	5.76**	.07	1.85	.02	1.07	.01	3.09*	.04	1.98	.02
Anger	45.19****	.37	.01	.00	.02	.00	3.41*	.04	.37	.01	.07	.00	.23	.00
Anxiety	41.67****	.35	.69	.01	1.36	.02	6.33****	.08	1.86	.02	2.61	.03	3.89*	.05
Sadness	127.90****	.62	1.48	.02	5.89**	.07	.00	.00	.01	.00	.56	.01	1.44	.02
Cognitive Words	79.95****	.50	.25	.00	1.03	.01	.11	.00	.10	.00	.07	.00	.15	.00
Insight	66.39****	.45	1.06	.01	.77	.01	.25	.00	1.38	.02	.13	.00	2.10	.03
Causation	.00	.00	.96	.01	.22	.00	.91	.01	.05	.00	.32	.00	3.54*	.04
Inhibition	1.42	.02	.03	.00	.07	.00	1.31	.02	1.42	.02	.85	.01	.00	.00

**** $p < .001$; *** $p < .01$; ** $p < .05$; * $p < .10$

CHAPTER 4

DISCUSSION

The present study has aimed to replicate earlier findings related to psychological wellbeing with a Turkish university sample. By examining both the scales and the essays, a pattern with respect to the relation between the word use and wellbeing was also investigated. As the individual difference domain considered to be potentially influential to the efficacy of EW intervention, negative affectivity was chosen. The writing instructions were determined in order to enable the participants processing their losses and to increase the intervention's efficacy. Although not all earlier findings could be replicated, the current study is a pioneer in a way, first reporting the results of the LIWC analyses of the essays in Turkish.

4.1 Summary of the findings

Regarding the hypotheses of the current study, some contradictory findings have been reached for different outcome measures. Although the null hypothesis 1 could not be rejected in a way that the current study has failed to replicate earlier beneficial findings of the EW intervention on psychological measures, especially, the exploratory analyses based on the word use have showed some encouraging findings for future EW research.

4.1.1 The effects of the EW intervention

The EW intervention effect was expected to be observed in people's self-reported psychological measures. However, the present study has failed to reinforce any beneficial change in people's psychological well-being as a result of the intervention.

One challenging finding has been reached for the hyperarousal level changes of the groups. Specifically, there was a tendency for the control group to decrease in their scores whereas the EW participants maintained same level of hyperarousal. Although any other statistically meaningful difference on the psychological outcome measures has not been seen, some observed changes should also be mentioned.

Regarding the post-traumatic growth measure, the EW participants has increased more than the control group even though the significance level was not reached. Specifically, the EW group showed almost twice as much increase in their total scores from pre-intervention to the follow-up time than the control one.

Additionally, the rumination levels of the control group had showed a slightly more decrease than the EW group's as being in contradiction with the expectations. The observed differences regarding other measures were almost at the same degree and towards the same direction for each group.

The results of the analyses of the post-session evaluation questionnaires as the short-term effects of writing showed some previously reported differences among the conditions in the literature. Specifically, the EW group has reported the highest level of negative emotions on the first day and decreased towards the same level that of the CG participants showed across sessions. The CG reported relatively similar degrees of negative emotions after each session. Then again, the EW group has decreased in their reported physical symptoms from the first day to the second one while the CG has not changed in this domain. Although these changes within the EW group are in line with the exposure theory which assumes that the increase in negative emotions after the first writing session and the subsequent decrease in the next ones being in relation with the beneficial effects of the intervention (Sloan et al., 2005), the failure

of finding any beneficial effect of the intervention in the current study has supported the idea that other complementary dynamics are also in progress.

Some differences in the word use across the conditions were also observed. Almost all the changes in the use of selected word categories observed across sessions was relatively equal and towards to same directions for each group. Although the degree of change across sessions was not significantly different from each other, the level of the usage of those words differed across the conditions. Namely, the EW participants have used more words in the dictionaries the first-person singular pronoun, the affect words (i.e. the negative affect words and its subcategories anger, anxiety, and sadness, the positive affect words in total), and the cognitive mechanism words in total and the insight subcategory. On the other hand, there were no differences in the use both of causality and of inhibition words across the conditions.

The failure to find any significant beneficial effect of the intervention is consonant with the literature based on the earlier findings and the conclusion that the benefit of the EW experience is in relation with the degree of change across writing sessions in the use of cognitive mechanism words, especially causation and insight categories, not the actual levels of their use (e.g. Hemenover, 2003; Pennebaker et al., 1997; Ramírez-Esparza & Pennebaker, 2006). The structured instructions of the current study were determined in order to reinforce the EW group participants to think about different aspects of their loss experiences. Being in line with the literature (e.g. Seih et al., 2011), perspective switching was expected to be the reinforcement of cognitive change. Although the manipulation check has showed the change in the use of personal pronouns, the positive effect of the perspective

switching on the increase in cognitive word use could not be replicated with the current sample.

The writing instructions of the control group should also be considered as another reason for the null findings. As Rubin, Hawkins, Cobb, and Telch (2009) have proposed, the writing about unemotional topic has the possibility to distract people from distressing thoughts and emotions. Relatedly, Baikie, Geerligs, and Wilhelm (2012) have discussed that writing about routines and planning resemble the behavioral therapy method for depressed people and other forms of neutral writing could be used. Considering the current study, the time of the writing sessions overlapped with the exam weeks of the school and two of the control group instructions required them to plan the rest of the day and week. At the end, the control group participants did not differ from the EW group with respect to their perceptions that the writing for four days was beneficial for them. Accordingly, as it can be seen in the post-experiment evaluation questionnaire which contained the open-ended question regarding the participants' perceptions of the writing experience, many control group participants mentioned that during the exam week, they appreciated the time we offered them to make plans. For example, one control group participant specifically wrote that:

... events started making me anxious. I just have to do all my obligations, religiously. Writing was good for me, so I am thinking of keeping a journal. In order to relax, I might write my plans and doings as I did for this experiment. It is a good coincidence that this experiment coincided with a very busy week of mine... (for the original text, please refer to Appendix S, 1)

The timing of the current study has another possibility to be influential on the results that both groups improved with time. Unfortunately, as the university community, we have experienced a recent loss due to suicide that became quite public among the university body just three days before the first writing session of

this study. The announcement of the study was done earlier and could not be changed. The recently shared trauma had a significant impact on all of us. The acute panic and grief coincided with the pre-test time in the current study, thus these two important stressful events may have colluded in creating an unexpected main effect for time across both conditions.

4.1.2 The role of negative affectivity

The negative affectivity levels of the participants have been added into the analyses by dividing the participants into two groups within each of the conditions with respect to the view that people at different levels of negative affectivity experience their life events in separate ways (Watson & Clark, 1984). Although for the psychological outcome measures, the results have not revealed any statistically meaningful conclusions, there were some observed tendencies to be mentioned within the EW group.

The EW participants with higher levels of negative affectivity were expected to benefit more from the intervention. However, contrary to expectations, they only showed a sharp decrease in their depression scores. On other psychological self-reported measures, that kind of trend was not observed. On the other hand, for instance, for the post-traumatic growth domain, the EW participants who were low on negative affectivity have increased their scores the most, thus showing greater benefit. In fact, both the rumination and also IES-R score analyses showed similar tendencies in a way that while the EW participants low on negative affectivity decrease in their scores on these measures and also namely in IES-R's subscales intrusion, avoidance, and hyperarousal, the high negative affectivity group within the

EW condition either stayed relatively same or got worse (i.e. showed a tendency to increase).

Some statistically meaningful results have been revealed by the analyses of the words use across the essays. First of all, there was an observed difference in the use of negative affect words and its subdictionary sadness-related words between people with the different levels of negative affectivity across the conditions. Specifically, as expected, the EW group has used those words more than the CG, in general. However, while the low negative affectivity people in the EW condition have used less of those words than the high ones in the same condition. As Watson and Clark (1984) have put it, people with low negative affectivity repress their distressing experiences and related emotions more than the high ones, the differences in the negative emotion word use between the affectivity groups within the EW condition is expected. Besides, in line with this trait, people high on negative affectivity are more inclined to be self-aware (Watson & Clark, 1984); therefore, during the act of writing about their losses, they are expected to be more in connection with their emotions which are generally negative with respect to the topic. Regarding the difference between the affectivity groups within the CG, this self-awareness might be operating for the high negative affectivity group. In other words, the writing instructions were asked the CG participants not to include their emotions and the people high on negative affectivity within this group might be more sensitive on following the instructions.

There were also some differences across sessions among the groups. Namely, for the anxiety-related and the causality words, the direction of the change in the use of them differed for each group. For the anxiety-related words, there was a tendency of people high in negative affectivity within the EW condition to decrease from the

first day to the last one whereas the low ones have stayed relatively at the same level. Considering the results on negative emotion words use, while the high negative affectivity group within the EW condition has used more of those words in total, their use of anxiety-related words decreased across sessions more than the low ones did. This might be linked to their ruminative tendencies in a way that in the first day, they have written their experiences as they had currently thought. As Watson and Clark (1984) have stated, people high on negative affectivity have the tendency to ruminate more which in turn increase the negative emotions experienced. However, the instructions of the present study have asked them to think and write about different aspects of their experiences. This change in perspectives may have made it possible for those people to go beyond their ruminative thoughts at least while they were writing and to get freed from the anxiety that their rumination created. Moreover, while the people high in negative affectivity within the same group have decreased in their use of causality-related words, the low negative affectivity people had the tendency to increase in this category across the days of writing. Considering the tendency on the psychological outcomes observed for the EW participants low on negative affectivity, the increase in their use of causality words is in line with the earlier findings, especially on post-traumatic growth (e.g. Zheng et al., 2019). The direction of the change in the use of causal words was opposite for each emotionality group and the role of negative affectivity on cognitive processing change needs further research.

Some other tendencies affected by negative affectivity in the use of words have also been observed even though the results were not statistically meaningful. Affect words category in general was one of them. The sharpest decreases in the use of both affect word categories and the I-talk have been seen for the EW participants who

were high in negativity affectivity whereas the low ones within the same condition stayed at relatively similar levels. As Dunnack and Park (2009) have concluded, the increase in the use of I across sessions is related to the better adjustment in a way that reinforcing the self-focus that enables the person to integrate traumatic memories and to explore the effects of the trauma on him/herself. According to this conclusion, the decrease in the use of I seen in the essays of the high negative affectivity group within the EW condition could be linked to the absence of beneficial effects of the intervention for this group. Further research can clarify the significance of pronoun use change within the Turkish language.

Insight-related word category was the only one expected and hypothesized that the increase in these words across the days of writing would bring benefits from the intervention, especially for people with high negative affectivity. The beneficial effects of the EW interventions have been linked to the increase in both insight and causation words, as mentioned before. This result regarding the insight words together with the observed decrease in the causality words of this group within the EW condition have questioned the role of these word categories in the change in cognitive processing resulting in getting benefits from the intervention. In other words, even though the high negative affectivity group within the EW condition showed a tendency to increase in their use of insight-related words, they have also decreased in the causation word category and showed no sign of getting psychological benefits from the intervention. The low negative affectivity group, on the other hand, showed some tendencies like greater post-traumatic growth towards getting better after the intervention while they also showed increases in their use of causality words. The dynamics that these word categories reinforce in order to result in cognitive processing change should be examined with further research.

The results of the reported positive affect after each writing sessions showed that the negative affectivity has altered the direction of change across sessions. Specifically, for the CG the low NA group has increased in positive affect while the high NA participants within the same condition have stayed relatively at the same level. Considering the writing instructions for the CG and the timing of the sessions (i.e. exam week), by writing plans and schedules the low NA group in this condition have gotten more relief and may have felt happier than the high NA participants within the CG. More interesting findings were reached for the intervention group. The direction of the change in felt positive emotions reported was opposite for each affectivity group. Specifically, the low NA participants within the EW condition have reported fewer positive emotion as time passed by whereas the high NA ones have showed an increase in their felt positive affect. The felt positivity reported by the participants was changed for the better by the intervention for the high NA intervention participants; but the results of objectively measured psychological outcomes have not been affected by this change.

In conclusion, for the psychological outcome measures, the findings of the current study have failed to replicate earlier findings. Moreover, the observed tendencies (except for depression) regarding the change in psychological well-being are in contradiction with the expectations in a way that the people with low negative affectivity who have processed their losses through writing have shown changes for the better. Namely, they have had the tendency to increase more in post-traumatic growth domain, and to decrease in rumination, intrusion, avoidance, and hyperarousal levels after the intervention. Considering the word use, the same group of people within the EW condition have also been the ones who showed increase in their use of causality-related words from the first day to the last one whereas the high

negative affectivity group, who were the ones expected to obtain more benefits, have decreased in the use of these words even though they were also the ones who have had a tendency to increase in their use of insight-related words. Regarding these two cognitive mechanism word categories and the role of negative affectivity, further research is needed in order to understand the differences among the processes they reinforced and in return result in beneficial impact of the EW intervention.

4.1.3 The role of perceived social support

In order to examine the effects of the EW intervention when controlling for any effect of the participants' perceptions regarding how much social support they have, their scores on the related measure have been added into the analyses as the covariate. The important cautionary point here is that the current study has failed to reach any statistically meaningful results on psychological wellbeing measures; therefore, both the hypothesized and the reported effects of social support do not make any clear-cut conclusions.

Social support has been found as being associated both with psychological wellbeing and with the time of loss (e.g. Briere & Scott, 2006). For instance, a negative relation between social support and depression and anxiety has been reported (Wilson, Weiss, & Shook, 2020). Similarly, in the present study, there was a negative association between perceived social support levels of the participants and their depression scores at both pre-intervention and at even the one reported three weeks later. Moreover, negative relations have been found between social support and avoidance and hyperarousal scores at the baseline. To be more specific, the higher the people's perceived social support levels, the lower their scores of depression and of the event-related avoidance and hyperarousal at baseline. Besides,

the negative association between depression and social support was not changed after the intervention. On the other hand, there was also a positive association between social support and post-traumatic growth scores of the participants at both times in a way that the higher the perceived social support, higher the post-traumatic growth after the loss in question.

After controlling for the role of social support levels reported, the only meaningful conclusion has been that the CG participants appeared to have gotten a benefit from the writing experience with respect to their decrease in the event-related hyperarousal scores whereas the EW group has stayed relatively at the same level. Similarly, even though the results were not statistically significant, the same tendency has been observed for the rumination levels of the conditions. These unexpected findings related to the control group might be related to the structuring element of the writing instructions during the exam week, as mentioned before. The specific role of social support within the EW paradigm should be examined with further research.

4.1.4 The impact of the EW intervention based on the type of loss

The analyses based on loss type categories created have shown no statistically meaningful results; but there were some tendencies observed. Meanwhile, when the sample size in question is considered, definitive conclusions should be approached by caution.

Any effect either of the intervention or the loss categories have not been observed for the outcome measures of depression, rumination, avoidance, hyperarousal, post-traumatic growth in total and its domains relating to others, spiritual change, and personal strength. On the other hand, the participants who wrote

about loss of a relationship have reported at both assessment times that they have experienced more intrusive thoughts of the loss than the ones who wrote about death of a loved one. There was also an observed proneness for the people in the relationship category to decrease more in their intrusion scores after the EW intervention even though the significance level was not reached. Besides, while the EW participants who wrote about death have been the ones who appreciated life more comparing those who wrote about relationship loss, the tendency was that people who processed their loss of a relationship via writing were more prone to increase in their scores on this outcome.

The role of social support on the change in psychological well-beings of people who have experienced different kind of losses, was also analyzed. The findings showed that when the effect of social support they had was controlled, people who experienced a loss related to death have the tendency to ruminate more than people who had a relationship-related loss. Additionally, the effect of social support has been found only at baseline assessments of depression, rumination, and the level of relating to others. The relationships between perceived social support and depression as well as rumination have been found to be negative, whereas there was a positive relationship between the level of relating and perceived social support. In other words, before the intervention was applied, higher perceived social support was associated with higher ruminative tendencies as well as relating to others and lower depression levels.

4.2 Strengths and limitations

4.2.1 Strengths of the current study

The focus of the present study was to analyze the question for whom the EW intervention works if it works at all. The impact of the EW intervention can not be thought of as being independent from the differences in the processing of people which can be seen in their use of words, considering the extensive literature. The present study is the first one reporting the LIWC analysis with the created Turkish dictionary, to our knowledge. Looking also at the role of negative affectivity levels of people during the expressive writing experience has aimed to shed lights on more specific aspect of individual differences on processing via writing. Structured instructions like perspective switching and writing about the resilient part of one's self as well as the gains from the loss have worked well regarding both the word use and the self-reported emotions at the end of the sessions as well as the subjective comments of the participants.

First of all, analyzing word usage was as crucial aspect of the present study with respect to our knowledge that all currently existing studies with Turkish samples have only examined the effect of the EW intervention apart from using LIWC program. The current study is a pioneer and have reached some thought-provoking results for the future researches. The findings showed that negativity affectivity was related to the differences among the word use in the EW essays.

Perspective switching technique of writing has also been used in order to improve the efficacy of the intervention. By using LIWC, compliance to the perspective switching was checked and seen to be successfully endorsed. Moreover, some subjective comments of the participants in the post-session evaluation questionnaire of the day of this switching have shown the manipulation has been a

successful one. Feeling different emotions regarding the topic was common. To illustrate, one participant has stated at the end of the writing session that “(W)riting in this way is easier. The person can write more objectively. While I was telling my story, I felt anger, but not at this time...”.

The manipulation has also worked well to change the way of understanding the event by using the third-person perspective. For example, one of the intervention group participants has commented that the writing experience of that day as being “eye-opening” in a way that “some links between the events have suddenly started to make sense...”. Besides, some other comments of the intervention participants have included that they have questioned their roles in the event and/or situation. For instance, one of them have stated that

I am feeling more relieved and happier unlike the previous two days. Maybe, when I looked at the event by using another person’s view, I felt that even though the event is upsetting, the guilty party of this event was not me. (for the original text, please refer to Appendix S, 2)

Technique of perspective switching has also pointed that using the third-person singular pronoun could also perceptively increase self-compassion even though it has not been measured in the scope of the present study. Feeling sorry for the subject of the experience was common among the responses. For instance, one participant stated that “... I felt sadder than the previous days. When I wrote by using the third person, it was like I was watching those times from a distance and I felt sorry for myself as if I was another person.”. Similarly, another participant has written that:

Thinking that another person has experienced these events has made me sad, somehow. While the difficulties I have can not make me sad, another person’s experiences related to the same event have made me sad. Although the event I lived through has had more positive aspects, thinking that another person has experienced these events has made me feel different emotions. (for the original text, please refer to Appendix S, 3)

The immediate effects of writing about the resilient parts of the self and the gains from the loss have been observed at both the self-reported post-session affects and also at the subjective comments on the daily writing experience. The highest level of reported positive affect was on that day and this has pointed to the fact that the writing instruction has worked. The observed commonalities among people's comments have been more on self-observations like the thoughts of overcoming the problems, feelings of relief and self-sufficiency. One of the sincerest statements was "I have told myself that you made it!". Another participant who wrote about the death of a loved one during the sessions has stated at the end of the second session that:

By remembering what have changed and what I have done after experiencing a great loss-related pain, I have realized how much I have changed. This loss is still been influential in my present-day life, and also my characteristic features and my behaviors have been changed by this loss. I have realized that with today's writing. Although remembering those times makes me feel sad, remembering [the lost person] have always awaken different emotions in me. Those days are like in the past but at the same time in the present; but the recovering period was the most difficult days of my life and today, remembering that period and also what I have done during it has made me feel strong. (for the original text, please refer to Appendix S, 4)

Altogether, it can be said that the structured writing instructions have worked well as seen both at quantitative and also at qualitative measures. Besides, adding the individual differences into the study of the EW intervention's efficacy has resulted in some encouraging findings, especially regarding the processing differences among people observed by the LIWC analysis.

4.2.2 Limitations of the current study

There are limitations some of which were mentioned in the related sections like timing of the study. Other limitations will be elaborated in this section.

First of all, regarding the null findings of the present study even though the writing instructions worked well, the sample size should be the first limitation to be mentioned. The chosen statistical approach was to exclude any outliers, extreme scores, and missing scores from the analyses; therefore, the sample size was diminished during running of the analyses. There were also some dropouts at both the time of the writing sessions and also at the 3-week follow-up assessment. Moreover, any additional and/or exploratory analysis done within the intervention group by dividing it into, for instance, two groups based on the individual differences like the one in the present study, the sample size became even smaller for those analyses. Future research should consider recruiting more people in the beginning with respect to the possibility of shrinking of the sample size especially at the time of the follow-up assessment.

Considering the earlier findings in the literature reported the biggest benefits of EW on physical health outcome measures, it should be pointed that the present study had no objectively measured physical health outcomes like health center visits of the intervention participants. It is probable that the results could be different on objectively measured physical health outcomes. Moreover, some additional information like trauma histories and therapy experiences has also been collected from the participants but not used in any analysis with respect to the scope of the thesis. By controlling for these and other gathered information which could be influential in people's processing their losses via writing, some other meaningful conclusions can be reached.

During the data collection phase of the present study, in order to ensure the participants privacy, they were left alone. However, expectedly, not all of them were eager to participate rather they were interested the course credits we offered. There

were no means of checking how the participants used their 15 minutes of writing due to providing privacy during that time. For instance, one intervention participant who passed the 15-minute time frame was checked on to see whether she was doing okay was found to be doing fine and being busy with her mobile phone.

The timing of the present study was problematic. As mentioned before, as the university community, we have experienced a very recent loss of one of our own days before the experiment was to start. The impact of the shared trauma could not be examined before the EW intervention started. The improvement observed for each group could be the result of naturally processing that shared loss trauma. Besides, the exam week of the university has overlapped with the study's writing sessions, and the control group's writing instructions have had the potential to releasing some tension on the participants by asking them to make plans. In general, the timing of the present study was not ideal, but could not be changed with respect to the announcement made earlier and also to the time restriction of the thesis.

In conclusion, the sample size requires a great deal of consideration, especially in the case of further examinations within the intervention group. Moreover, adding the objectively measured physical health outcomes would increase the possibility of finding the effects of the intervention. Also, some other moderators should also be considered. Importantly, the timing of the study with a university student sample is more crucial than the ones with any other sample with respect to the varying levels of stress across the semester. It is more appropriate that recruitment should be done at different time periods to balance this effect.

REFERENCES

- Acar, D., & Dirik, G. (2018). Yazılı duygusal dışavurum paradigması: Kanser hastalarının eşlerinde travma sonrası stres belirtileri ve travma sonrası gelişim üzerindeki etkileri. *Klinik Psikiyatri Dergisi*, 21(2), 154-167. doi:10.5505/kpd.2018.48343
- Alexander-Emery, S., Cohen, L. M., & Prenskey, E. H. (2005). Linguistic analysis of college aged smokers and never smokers. *Journal of Psychopathology and Behavioral Assessment*, 27(1), 11-16. doi: 10.1007/s10862-005-3260-4
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. Washington DC, USA: Author.
- Anders, S. L., Frazier, P. A., & Frankfurt, S. B. (2011). Variations in Criterion A and PTSD rates in a community sample of women. *Journal of Anxiety Disorders*, 25(2), 176-184. <https://doi.org/10.1016/j.janxdis.2010.08.018>
- Archer, J. (1999). *The nature of grief: The evolution and psychology of reactions to loss*. London: Routledge.
- Archer, J., & Fisher, H. (2008). Bereavement and reactions to romantic rejection: A psychobiological perspective. In M. S. Stroebe, R. O. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (p. 349–371). Washington DC, USA: American Psychological Association. <https://doi.org/10.1037/14498-017>
- Axelrod, J. (2019). The 5 stages of grief and loss. *Psych Central*. Retrieved from <https://psychcentral.com/lib/the-5-stages-of-loss-and-grief/>
- Baikie, K. A. (2008). Who does expressive writing work for? Examination of alexithymia, splitting, and repressive coping style as moderators of the expressive writing paradigm. *British Journal of Health Psychology*, 13(1), 61-66. doi: 10.1348/135910707X250893
- Baikie, K. A., Geerlings, L., & Wilhelm, K. (2012). Expressive writing and positive writing for participants with mood disorders: An online randomized controlled trial. *Journal of Affective Disorders*, 136(3), 310-319. <https://doi.org/10.1016/j.jad.2011.11.032>

- Baikie, K. A., & Wilhelm, K. (2005). Emotional and physical health benefits of expressive writing. *Advances in Psychiatric Treatment, 11*(5), 338-346. doi: 10.1192/apt.11.5.338
- Batten, S. V., Follette, V. M., Hall, M. L. R., & Palm, K. M. (2002). Physical and psychological effects of written disclosure among sexual abuse survivors. *Behavior Therapy, 33*(1), 107-122. doi: 10.1016/S0005-7894(02)80008-9
- Beck, A. T., Steer, R.A., & Garbin, M.G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*(1), 77-100. doi: 10.1016/0272-7358(88)90050-5
- Beck, A.T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561-571. doi:10.1001/archpsyc.1961.01710120031004
- Blatner, A. (2005, February 19). Some principles of grief work [Web log post]. Retrieved from <https://www.blatner.com/adam/psynbtk/grief.htm#top>
- Blum, H. P. (2003). Psychic trauma and traumatic object loss. *Journal of the American Psychoanalytic Association, 51*(2), 415-432. <https://doi.org/10.1177%2F00030651030510020101>
- Boals, A. (2012). The use of meaning making in expressive writing: When meaning is beneficial. *Journal of Social and Clinical Psychology, 31*(4), 393-409. <https://doi.org/10.1521/jscp.2012.31.4.393>
- Boals, A., & Klein, K. (2005). Word use in emotional narratives about failed romantic relationships and subsequent mental health. *Journal of Language and Social Psychology, 24*(3), 252-268. doi: 10.1177/0261927X05278386
- Bonanno, G. A., & Kaltman, S. (2001). The varieties of grief experience. *Clinical Psychology Review, 21*(5), 705-734. doi: 10.1016/s0272-7358(00)00062-3
- Booth, R. J., Petrie, K. J., & Pennebaker, J. W. (1997). Changes in circulating lymphocyte numbers following emotional disclosure: Evidence of buffering? *Stress Medicine, 13*(1), 23-29. doi: 10.1002/(SICI)1099-1700(199701)13:1<23::AID-SMI714>3.0.CO;2-E

- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss sadness and depression*. New York: Basic Books.
- Briere, J. N., & Scott, C. (2016). *Travma Terapisinin İlkeleri: Belirtiler, Değerlendirme ve Tedavi için Bir Kılavuz, DSM-5 için Güncellenmiş*. Istanbul, Turkey: İstanbul Bilgi Üniversitesi Yayınları.
- Brinker, J. K., & Dozois, D. J. A. (2009). Ruminative thought style and depressed mood. *Journal of Clinical Psychology, 65*(1), 1-19. doi: 10.1002/jclp.20542
- Broderick, J. E., Junghaenel, D. U., & Schwartz, J. E. (2005). Written emotional expression produces health benefits in fibromyalgia patients. *Psychosomatic Medicine, 67*(2), 326-334. doi: 10.1097/01.psy.0000156933.04566.bd
- Brody, L. R., & Park, S. H. (2004). Narratives, mindfulness, and the implicit audience. *Clinical Psychology: Science and Practice, 11*(2), 147-154. doi: 10.1093/clipsy/bph065
- Brown, L. S. (2008). *Cultural competence in trauma therapy: Beyond the flashback*. Washington, DC: American Psychological Association.
- Brown, J. T., & Stoudemire, G. A. (1983). Normal and pathological grief. *Jama, 250*(3), 378-382. doi:10.1001/jama.1983.03340030038025
- Campbell, R. S., & Pennebaker, J. W. (2003). The secret life of pronouns: Flexibility in writing style and physical health. *Psychological Science, 14*(1), 60-65. doi: 10.1111/1467-9280.01419
- Cantekin, D. (2008). *A replication and extension of the written expressive disclosure paradigm: A longitudinal study* (Unpublished master's thesis). Middle East Technical University, Ankara, Turkey.
- Chung, C. K., & Pennebaker, J. W. (2008). Variations in the spacing of expressive writing sessions. *British Journal of Health Psychology, 13*(1), 15-21. doi: 10.1348/135910707x251171
- Cohen, J. L., Sander, L. M., Slavin, O. M., & Lumley, M. A. (2008). Different methods of single-session disclosure: What works for whom? *British Journal of Health Psychology, 13*(1), 23-26. doi: 10.1348/135910707X250901

- Cohn, M. A., Mehl, M. R., & Pennebaker, J. W. (2004). Linguistic markers of psychological change surrounding September 11, 2001. *Psychological Science*, *15*(10), 687-693. doi: 10.1111/j.0956-7976.2004.00741.x
- Creswell, J. D., Lam, S., Stanton, A. L., Taylor, S. E., Bower, J. E., & Sherman, D. K. (2007). Does self-affirmation, cognitive processing, or discovery of meaning explain cancer-related health benefits of expressive writing?. *Personality and Social Psychology Bulletin*, *33*(2), 238-250. doi: 10.1177/0146167206294412
- Çağlayan, P. (2016). *The determinants of posttraumatic growth and posttraumatic stress among motor vehicle accident survivors: Personality, coping mechanisms, and ruminations*. (Unpublished doctoral dissertation). Middle East Technical University, Ankara, Turkey.
- Danoff-Burg, S., Mosher, C. E., Seawell, A. H., & Agee, J. D. (2010). Does narrative writing instruction enhance the benefits of expressive writing?. *Anxiety, Stress, & Coping*, *23*(3), 341-352. doi: 10.1080/10615800903191137
- Davis, D., & Brock, T. C. (1975). Use of first person pronouns as a function of increased objective self-awareness and performance feedback. *Journal of Experimental Social Psychology*, *11*(4), 381-388. doi: 10.1016/0022-1031(75)90017-7
- Dirik, G., & Karancı, A. N. (2008). Variables related to posttraumatic growth in Turkish rheumatoid arthritis patients. *Journal of Clinical Psychology in Medical Settings*, *15*(3), 193-203. <https://doi.org/10.1007/s10880-008-9115-x>
- Donnelly, D. A., & Murray, E. J. (1991). Cognitive and emotional changes in written essays and therapy interviews. *Journal of Social and Clinical Psychology*, *10*(3), 334-350. <https://doi.org/10.1521/jscp.1991.10.3.334>
- Dunnack, E. S., & Park, C. L. (2009). The effect of an expressive writing intervention on pronouns: The surprising case of I. *Journal of Loss and Trauma*, *14*(6), 436-446. <https://doi.org/10.1080/15325020902925084>
- Eker, D., & Arkar, H. (1995). Çok boyutlu algılanan sosyal destek ölçeği'nin faktör yapısı, geçerlik ve güvenilirliği. *Türk Psikoloji Dergisi*, *10*(34), 45-55.

- Esterling, B. A., Antoni, M. H., Fletcher, M. A., Margulies, S., & Schneiderman, N. (1994). Emotional disclosure through writing or speaking modulates latent Epstein-Barr virus antibody titers. *Journal of Consulting and Clinical Psychology, 62*(1), 130-140. <https://doi.org/10.1037//0022-006x.62.1.130>
- Fernández, I., Páez, D., & Pennebaker, J. W. (2009). Comparison of expressive writing after the terrorist attacks of September 11th and March 11th. *International Journal of Clinical and Health Psychology, 9*(1), 89-103.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). London: Sage.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: exposure to corrective information. *Psychological Bulletin, 99*(1), 20-35. <https://psycnet.apa.org/doi/10.1037/0033-2909.99.1.20>
- Francis, M. E., & Pennebaker, J. W. (1992). Putting stress into words: The impact of writing on physiological, absentee, and self-reported emotional well-being measures. *American Journal of Health Promotion, 6*(4), 280-287. <https://doi.org/10.4278%2F0890-1171-6.4.280>
- Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin, 132*(6), 823-865. doi:10.1037/0033-2909.132.6.823
- Frisina, P. G., Borod, J. C., & Lepore, S. J. (2004). A meta-analysis of the effects of written emotional disclosure on the health outcomes of clinical populations. *The Journal of Nervous and Mental Disease, 192*(9), 629-634. doi: 10.1097/01.nmd.0000138317.30764.63
- Gençöz, T. (2000). Positive and negative affect schedule: A study of validity and reliability. *Türk Psikoloji Dergisi, 15*(46), 19-28.
- Gidron, Y., Duncan, E., Lazar, A., Biderman, A., Tandeter, H., & Shvartzman, P. (2002). Effects of guided written disclosure of stressful experiences on clinic visits and symptoms in frequent clinic attenders. *Family Practice, 19*(2), 161-166. <https://doi.org/10.1093/fampra/19.2.161>
- Gidron, Y., Peri, T., Connolly, J. F., & Shalev, A. Y. (1996). Written disclosure in posttraumatic stress disorder: Is it beneficial for the patient? *Journal of Nervous and Mental Disease, 184*(8), 505-507. <http://dx.doi.org/10.1097/00005053-199608000-00009>

- Gillies, J., & Neimeyer, R. A. (2006). Loss, grief, and the search for significance: Toward a model of meaning reconstruction in bereavement. *Journal of Constructivist Psychology, 19*(1), 31-65.
<https://doi.org/10.1080/10720530500311182>
- Glashouwer, K. A., Timmerman, J., & de Jong, P. J. (2019). A personalized approach-avoidance modification intervention to reduce negative body image. A placebo-controlled pilot study. *Journal of Behavior Therapy and Experimental Psychiatry*. <https://doi.org/10.1016/j.jbtep.2019.101544>
- Gortner, E. M., Rude, S. S., & Pennebaker, J. W. (2006). Benefits of expressive writing in lowering rumination and depressive symptoms. *Behavior Therapy, 37*(3), 292-303. <https://doi.org/10.1016/j.beth.2006.01.004>
- Graybeal, A., Sexton, J. D., & Pennebaker, J. W. (2002). The role of story-making in disclosure writing: The psychometrics of narrative. *Psychology and Health, 17*(5), 571-581. <https://doi.org/10.1080/08870440290025786>
- Greenberg, M. A., & Stone, A. A. (1992). Emotional disclosure about traumas and its relation to health: Effects of previous disclosure and trauma severity. *Journal of Personality and Social Psychology, 63*(1), 75-84.
<http://dx.doi.org/10.1037/0022-3514.63.1.75>
- Greenberg, M. A., Wortman, C. B., & Stone, A. A. (1996). Emotional expression and physical health: Revising traumatic memories or fostering self-regulation? *Journal of Personality and Social Psychology, 71*(3), 588-602.
<http://dx.doi.org/10.1037/0022-3514.71.3.588>
- Halpert, A., Rybin, D., & Doros, G. (2010). Expressive writing is a promising therapeutic modality for the management of IBS: A pilot study. *The American Journal of Gastroenterology, 105*(11), 2440-2448. doi: 10.1038/ajg.2010.246
- Hamilton, B. L. (1977). An empirical investigation of the effects of heterogeneous regression slopes in analysis of covariance. *Educational and Psychological Measurement, 37*(3), 701-712.
<https://doi.org/10.1177%2F001316447703700313>
- Harvey, J. H. (2000). *Give sorrow words: Perspectives on loss and trauma*. New York: Brunner Routledge.

- Hemenover, S. H. (2003). The good, the bad, and the healthy: Impacts of emotional disclosure of trauma on resilient self-concept and psychological distress. *Personality and Social Psychology Bulletin*, 29(10), 1236-1244. <https://doi.org/10.1177%2F0146167203255228>
- Henry, E. A., Schlegel, R. J., Talley, A. E., Molix, L. A., & Bettencourt, B. (2010). The feasibility and effectiveness of expressive writing for rural and urban breast cancer survivors. *Oncology Nursing Forum*, 37(6), 749-757. <https://doi.org/10.1188/10.onf.749-757>
- Hisli, N. (1989). Beck Depresyon Envanteri'nin üniversite öğrencileri için geçerliği, güvenilirliği (Reliability and validity of the Beck Depression Inventory for university students). *Psikoloji Dergisi*, 7(23), 3-13.
- Horowitz, M. J. (1986). Stress-response syndromes: A review of posttraumatic and adjustment disorders. *Psychiatric Services*, 37(3), 241-249.
- Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of event scale: A measure of subjective stress. *Psychosomatic Medicine*, 11(3), 209-218. <http://dx.doi.org/10.1097/00006842-197905000-00004>
- Hoyt, T., & Yeater, E. A. (2011). The effects of negative emotion and expressive writing on posttraumatic stress symptoms. *Journal of Social and Clinical Psychology*, 30(6), 549-569. <https://doi.org/10.1521/jscp.2011.30.6.549>
- Işıklı, S. (2006). *Travma sonrası stres belirtileri olan bireylerde olaya ilişkin dikkat yanlılığı, ayrışma düzeyi ve çalışma belleği uzamı arasındaki ilişkiler*. (Unpublished doctoral dissertation). Hacettepe Üniversitesi, Ankara, Turkey.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: Free Press.
- Kacewicz, E., Slatcher, R. B., & Pennebaker, J. W. (2007). Expressive writing: An alternative to traditional methods. In *Low-cost approaches to promote physical and mental health* (pp. 271-284). New York, NY: Springer.
- Karancı, A. N., Işıklı, S., Aker, A. T., Gül, E. İ., Erkan, B. B., Özkol, H., & Güzel, H. Y. (2012). Personality, posttraumatic stress and trauma type: Factors contributing to posttraumatic growth and its domains in a Turkish community sample. *European Journal of Psychotraumatology*, 3(1), doi: 10.3402/ejpt.v3i0.17303

- Karatepe, H. T. (2010). *Ruminatif düşünce biçimi ölçeğinin türkçe uyarlaması, geçerlik ve güvenilirlik çalışması* (Medical specialization thesis). Sağlık Bakanlığı, İstanbul Bakırköy Prof. Dr. Mazhar Osman Ruh Sağlığı ve Sinir Hastalıkları Eğitim ve Araştırma Hastanesi, İstanbul, Turkey.
- Kavcıoğlu, F. C. (2011). *The role of meta-mood experience on the mood-congruency effect in recognizing emotions from facial expressions*. (Unpublished doctoral dissertation). Middle East Technical University, Ankara, Turkey.
- Klein, K. (2002). Stress, expressive writing, and working memory. In S. J. Lepore & J. M. Smyth (Eds.), *The writing cure* (pp. 135–155). Washington, DC: American Psychological Association.
- Klein, K., & Boals, A. (2001). Expressive writing can increase working memory capacity. *Journal of Experimental Psychology: General*, *130*(3), 520-533. <https://doi.org/10.1037//0096-3445.130.3.520>
- Kovac, S. H., & Range, L. M. (2000). Writing projects: Lessening undergraduates' unique suicidal bereavement. *Suicide and Life-Threatening Behavior*, *30*(1), 50-60. <https://doi.org/10.1111/j.1943-278X.2000.tb01064.x>
- Kovac, S. H., & Range, L. M. (2002). Does writing about suicidal thoughts and feelings reduce them?. *Suicide and Life-Threatening Behavior*, *32*(4), 428-440. <https://doi.org/10.1521/suli.32.4.428.22335>
- Kübler-Ross, E. (1969). *On death and dying*. New York: Macmillan.
- Lafont, J., & Oberle, C. D. (2014). Expressive writing effects on body image: Symptomatic versus asymptomatic women. *Psychology*, *5*(05), 431-440. <http://dx.doi.org/10.4236%2fpsych.2014.55053>
- LaGrand, L. E. (1981). Loss reactions of college students: A descriptive analysis. *Death Education*, *5*(3), 235-248.
- LaGrand, L. E. (1985). College student loss and response. *New Directions for Student Services*, *31*, 15–28. <https://doi.org/10.1002/ss.37119853104>

- Lepore, S. J. (1997). Expressive writing moderates the relation between intrusive thoughts and depressive symptoms. *Journal of Personality and Social Psychology*, 73(5), 1030-1037. doi:10.1037/0022-3514.73.5.1030
- Lepore, S. J., & Greenberg, M. A. (2002). Mending broken hearts: Effects of expressive writing on mood, cognitive processing, social adjustment and health following a relationship breakup. *Psychology and Health*, 17(5), 547-560. <https://doi.org/10.1080/08870440290025768>
- Lichtenthal, W. G., & Cruess, D. G. (2010). Effects of directed written disclosure on grief and distress symptoms among bereaved individuals. *Death Studies*, 34(6), 475-499. <https://doi.org/10.1080/07481187.2010.483332>
- Lincoln, K. D., Chatters, L. M., & Taylor, R. J. (2005). Social support, traumatic events, and depressive symptoms among African Americans. *Journal of Marriage and Family*, 67(3), 754-766. <https://doi.org/10.1111/j.1741-3737.2005.00167.x>
- Lumley, M. A. (2004). Alexithymia, emotional disclosure, and health: A program of research. *Journal of Personality*, 72(6), 1271-1300. <https://doi.org/10.1111/j.1467-6494.2004.00297.x>
- Meads, C., Lyons, A. C., & Carroll, D. (2003). *The impact of the emotional disclosure intervention on physical and psychological health: A systematic review*. University of Birmingham, Department of Public Health and Epidemiology.
- Mehl, M. R., Gosling, S. D., & Pennebaker, J. W. (2006). Personality in its natural habitat: Manifestations and implicit folk theories of personality in daily life. *Journal of Personality and Social Psychology*, 90(5), 862-877. <https://doi.org/10.1037/0022-3514.90.5.862>
- Meston, C. M., Lorenz, T. A., & Stephenson, K. R. (2013). Effects of expressive writing on sexual dysfunction, depression, and PTSD in women with a history of childhood sexual abuse: Results from a randomized clinical trial. *The Journal of Sexual Medicine*, 10(9), 2177-2189. <https://doi.org/10.1111/jsm.12247>
- Middleton, W., Raphael, B., Martinek, N., & Misso, V. (1993). Pathological grief reactions. In Stroebe, M. S., Stroebe, W., & Hansson R. O. (Eds.), *Handbook of bereavement: Theory, research and intervention* (p. 44-61). New York: Cambridge University Press.

- Mogk, C., Otte, S., Reinhold-Hurley, B., & Kröner-Herwig, B. (2006). Health effects of expressive writing on stressful or traumatic experiences—A meta-analysis. *Psycho-Social Medicine*, 3(Doc6), 1–9.
- Müderrisoğlu, S. (2016). *LIWC Turkish dictionary* [Unpublished Manual]. Department of Psychology, Boğaziçi University, İstanbul, Turkey.
- Neimeyer, R. A. (2000). Searching for the meaning of meaning: Grief therapy and the process of reconstruction. *Death Studies*, 24(6), 541-558. doi: 10.1080/07481180050121480
- Niles, A. N., Haltom, K. E. B., Mulvenna, C. M., Lieberman, M. D., & Stanton, A. L. (2014). Randomized controlled trial of expressive writing for psychological and physical health: the moderating role of emotional expressivity. *Anxiety, Stress & Coping*, 27(1), 1-17. <https://doi.org/10.1080/10615806.2013.802308>
- O'Connor, M., Nikoletti, S., Kristjanson, L. J., Loh, R., & Willcock, B. (2003). Writing therapy for the bereaved: Evaluation of an intervention. *Journal of Palliative Medicine*, 6(2), 195-204. <https://doi.org/10.1089/109662103764978443>
- Oh, P.J., & Kim, S.H. (2016). The effects of expressive writing interventions for patients with cancer: A meta-analysis. *Oncology Nursing Forum*, 43(4), 468-479. <https://doi.org/10.1188/16.ONF.468-479>
- Park, J., Ayduk, Ö., & Kross, E. (2016). Stepping back to move forward: Expressive writing promotes self-distancing. *Emotion*, 16(3), 349-364. <http://dx.doi.org/10.1037/emo0000121>
- Parkes, C. M. (1965). Bereavement and mental illness. *British Journal of Medical Psychology*, 38, 1-26.
- Pavlacic, J. M., Buchanan, E. M., Maxwell, N. P., Hopke, T. G., & Schulenberg, S. E. (2019). A meta-analysis of expressive writing on posttraumatic stress, posttraumatic growth, and quality of life. *Review of General Psychology*, 23(2), 230-250. <https://doi.org/10.1177%2F1089268019831645>

- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8(3), 162-166.
<https://doi.org/10.1111%2Fj.1467-9280.1997.tb00403.x>
- Pennebaker, J. W. (2000). Telling stories: The health benefits of narrative. *Literature and Medicine*, 19(1), 3-18. <https://doi.org/10.1353/lm.2000.0011>
- Pennebaker, J. W. (2003). The social, linguistic and health consequences of emotional disclosure. In J. Suls & K. A. Wallston (Eds.), *Blackwell Series in Health Psychology and Behavioral Medicine. Social Psychological Foundations of Health and Illness* (p. 288-313). Malden: Blackwell Publishing.
<http://dx.doi.org/10.1002/9780470753552.ch11>
- Pennebaker, J. W. (2004). *Writing to heal: A guided journal for recovering from trauma and emotional upheaval* (1st ed.). Oakland, CA: New Harbinger Publications.
- Pennebaker, J. W. (2007). Current issues and new directions in Psychology and Health: Listening to what people say--the value of narrative and computational linguistics in health psychology, *Psychology & Health*, 22(6), 631-635,
 doi:10.1080/08870440701414920
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95(3), 274-281. doi:10.1037/0021-843X.95.3.274
- Pennebaker, J. W., & Chung, C. K. (2011). Expressive writing: Connections to physical and mental health. In H. S. Friedman (Ed.), *The Oxford Handbook of Health Psychology* (pp. 417-437). New York, NY: Oxford University Press.
- Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*, 58(3), 528-537.
 doi:10.1037/0022-3514.58.3.528
- Pennebaker, J. W., & Graybeal, A. (2001). Patterns of natural language use: Disclosure, personality, and social integration. *Current Directions in Psychological Science*, 10(3), 90-93. doi: 10.1111%2F1467-8721.00123
- Pennebaker, J. W., & Francis, M. E. (1996). Cognitive, emotional, and language processes in disclosure. *Cognition & Emotion*, 10(6), 601-626.
<https://doi.org/10.1080/026999396380079>

- Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). *Linguistic inquiry and word count: LIWC 2001*. Mahwah, NJ: Erlbaum.
- Pennebaker, J. W., Hughes, C. F., & O'Heeron, R. C. (1987). The psychophysiology of confession: Linking inhibitory and psychosomatic processes. *Journal of Personality and Social Psychology*, 52(4), 781-793.
<https://doi.org/10.1037//0022-3514.52.4.781>
- Pennebaker, J. W., Kiecolt-Glaser, J. K., & Glaser, R. (1988). Disclosure of traumas and immune function: Health implications for psychotherapy. *Journal of Consulting and Clinical Psychology*, 56(2), 239-245.
<https://doi.org/10.1037/0022-006X.56.2.239>
- Pennebaker, J. W., Mayne, T. J., & Francis, M. E. (1997). Linguistic predictors of adaptive bereavement. *Journal of Personality and Social Psychology*, 72(4), 863-871. <http://dx.doi.org/10.1037/0022-3514.72.4.863>
- Pennebaker, J. W., Mehl, M. R., & Niederhoffer, K. G. (2003). Psychological aspects of natural language use: Our words, our selves. *Annual Review of Psychology*, 54(1), 547-577. <https://doi.org/10.1146/annurev.psych.54.101601.145041>
- Pennebaker, J. W., & Stone, L. D. (2003). Words of wisdom: Language use over the life span. *Journal of Personality and Social Psychology*, 85(2), 291-301.
<https://doi.org/10.1037/0022-3514.85.2.291>
- Pennebaker, J. W., & Susman, J. R. (1988). Disclosure of traumas and psychosomatic processes. *Social Science & Medicine*, 26(3), 327-332.
[https://doi.org/10.1016/0277-9536\(88\)90397-8](https://doi.org/10.1016/0277-9536(88)90397-8)
- Pennebaker, J. W., Zech, E., & Rimé, B. (2001). Disclosing and sharing emotion: Psychological, social, and health consequences. In M.S. Stroebe, W. Stroebe, R.O. Hansson, & H. Schut (Eds.), *Handbook of bereavement research: Consequences, coping, and care* (pp. 517-539). Washington, DC: American Psychological Association.
- Petrie, K. J., Booth, R. J., Pennebaker, J. W., Davison, K. P., & Thomas, M. G. (1995). Disclosure of trauma and immune response to a hepatitis B vaccination program. *Journal of Consulting and Clinical Psychology*, 63(5), 787-792.
<https://doi.org/10.1037//0022-006x.63.5.787>

- Radcliffe, A. M., Lumley, M. A., Kendall, J., Stevenson, J. K., & Beltran, J. (2010). Written Emotional Disclosure: Testing Whether Social Disclosure Matters. *Journal of Social and Clinical Psychology, 26*(3), 362-384. <https://psycnet.apa.org/doi/10.1521/jscp.2007.26.3.362>
- Ramírez-Esparza, N., & Pennebaker, J. W. (2006). Do good stories produce good health?: Exploring words, language, and culture. *Narrative Inquiry, 16*(1), 211-219. <https://doi.org/10.1075/ni.16.1.26ram>
- Rando, T. A. (1993). The increasing prevalence of complicated mourning: The onslaught is just beginning. *OMEGA-Journal of Death and Dying, 26*(1), 43-59. <https://doi.org/10.2190%2F7MDL-RJTF-NA2D-NPQF>
- Range, M., Kovac, S. H., & Marion, M. S. (2000). Does writing about the bereavement lessen grief following sudden, unintentional death? *Death studies, 24*(2), 115-134. <https://doi.org/10.1080/074811800200603>
- Rimé, B. (1995). Mental rumination, social sharing, and the recovery from emotional exposure. In J. W. Pennebaker (Ed.), *Emotion, disclosure, and health* (pp. 271-291). American Psychological Association: Washington, D. C.
- Rivkin, I. D., Gustafson, J., Weingarten, I., & Chin, D. (2006). The effects of expressive writing on adjustment to HIV. *AIDS and Behavior, 10*(1), 13-26. <https://psycnet.apa.org/doi/10.1007/s10461-005-9051-9>
- Rosenberg, H. J., Rosenberg, S. D., Ernstoff, M. S., Wolford, G. L., Amdur, R. J., Elshamy, M. R., . . . Pennebaker, J. W. (2002). Expressive disclosure and health outcomes in a prostate cancer population. *International Journal of Psychiatry in Medicine, 32*(1), 37-53. <http://dx.doi.org/10.2190/AGPF-VB1G-U82E-AE8C>
- Rubin, M., Hawkins, B., Cobb, A., & Telch, M. J. (2019). Emotional reactivity to grief-related expressive writing. *Death Studies, 1-9*. <https://doi.org/10.1080/07481187.2019.1595219>
- Rude, S., Gortner, E. M., & Pennebaker, J. (2004). Language use of depressed and depression-vulnerable college students. *Cognition & Emotion, 18*(8), 1121-1133. <https://doi.org/10.1080/02699930441000030>

- Savitri, S. I., Takwin, B., Ariyanto, A. A., & Aribowo, R. T. (2019). Expressive writing changes grief into meaning—a sequential explanatory design approach. *COUNS-EDU: The International Journal of Counseling and Education*, 4(3), 102-113. <http://dx.doi.org/10.23916/0020190423740>
- Sbarra, D. A., Boals, A., Mason, A. E., Larson, G. M., & Mehl, M. R. (2013). Expressive writing can impede emotional recovery following marital separation. *Clinical Psychological Science*, 1(2), 120-134. <https://doi.org/10.1177%2F2167702612469801>
- Seih, Y. T., Chung, C. K., & Pennebaker, J. W. (2011). Experimental manipulations of perspective taking and perspective switching in expressive writing. *Cognition & Emotion*, 25(5), 926-938. <https://doi.org/10.1080/02699931.2010.512123>
- Seih, Y. T., Lin, Y. C., Huang, C. L., Peng, C. W., & Huang, S. P. (2008). The benefits of psychological displacement in diary writing when using different pronouns. *British Journal of Health Psychology*, 13(1), 39-41. <https://doi.org/10.1348/135910707X250875>
- Sidell, N. L. (1997). Adult adjustment to chronic illness: A review of the literature. *Health & Social Work*, 22(1), 5-11. <https://doi.org/10.1093/hsw/22.1.5>
- Slatcher, R. B., & Pennebaker, J. W. (2006). How do I love thee? Let me count the words: The social effects of expressive writing. *Psychological Science*, 17(8), 660-664. <https://doi.org/10.1111%2Fj.1467-9280.2006.01762.x>
- Slavin- Spenny, O. M., Cohen, J. L., Oberleitner, L. M., & Lumley, M. A. (2011). The effects of different methods of emotional disclosure: Differentiating post-traumatic growth from stress symptoms. *Journal of Clinical Psychology*, 67(10), 993-1007. <https://doi.org/10.1002/jclp.20750>
- Sloan, D. M., & Marx, B. P. (2004a). Taking pen to hand: Evaluating theories underlying the written disclosure paradigm. *Clinical Psychology: Science and Practice*, 11(2), 121-137. <https://doi.org/10.1093/clipsy.bph062>
- Sloan, D. M., & Marx, B. P. (2004b). A closer examination of the structured written disclosure procedure. *Journal of Consulting and Clinical Psychology*, 72(2), 165. <https://doi.org/10.1037/0022-006X.72.2.165>

- Sloan, D. M., Marx, B. P., Bovin, M. J., Feinstein, B. A., & Gallagher, M. W. (2012). Written exposure as an intervention for PTSD: A randomized clinical trial with motor vehicle accident survivors. *Behaviour Research and Therapy*, *50*(10), 627-635. <https://doi.org/10.1016/j.brat.2012.07.001>
- Sloan, D. M., Marx, B. P., & Epstein, E. M. (2005). Further examination of the exposure model underlying the efficacy of written emotional disclosure. *Journal of Consulting and Clinical Psychology*, *73*(3), 549-554. <https://psycnet.apa.org/doi/10.1037/0022-006X.73.3.549>
- Sloan, D. M., Marx, B. P., Epstein, E. M., & Dobbs, J. L. (2008). Expressive writing buffers against maladaptive rumination. *Emotion*, *8*(2), 302-306. <https://psycnet.apa.org/doi/10.1037/1528-3542.8.2.302>
- Smyth, J. M. (1998). Written emotional expression: Effect sizes, outcome types, and moderating variables. *Journal of Consulting and Clinical Psychology*, *66*(1), 174-184. doi:10.1037/0022-006X.66.1.174
- Smyth, J. M., Stone, A. A., Hurewitz, A., & Kaell, A. (1999). Effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis: A randomized trial. *JAMA*, *281*(14), 1304-1309. doi:10.1001/jama.281.14.1304
- Spera, S. P., Buhrfeind, E. D., & Pennebaker, J. W. (1994). Expressive writing and coping with job loss. *Academy of Management Journal*, *37*(3), 722-733. <https://doi.org/10.5465/256708>
- Stockton, H., Joseph, S., & Hunt, N. (2014). Expressive writing and posttraumatic growth: An Internet-based study. *Traumatology: An International Journal*, *20*(2), 75-83. <https://doi.org/10.1037/h0099377>
- Stroebe, M., Stroebe, W., Schut, H., Zech, E., & van den Bout, J. (2002). Does disclosure of emotions facilitate recovery from bereavement? Evidence from two prospective studies. *Journal of Consulting and Clinical Psychology*, *70*(1), 169-178. doi:10.1037/0022-006X.70.1.169
- Tackman, A. M., Sbarra, D. A., Carey, A. L., Donnellan, M. B., Horn, A. B., Holtzman, N. S., ..., & Mehl, M. R. (2018). Depression, negative emotionality, and self-referential language: A Multi-lab, multi-measure, and multi-language-task research synthesis. *Journal of Personality and Social Psychology*. Advance online publication. <http://dx.doi.org/10.1037/pspp0000187>

- Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology, 29*(1), 24-54.
<https://doi.org/10.1177%2F0261927X09351676>
- Tedeschi, R. G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*(3), 455-471. <https://doi.org/10.1002/jts.2490090305>
- Ullrich, P. M., & Lutgendorf, S. K. (2002). Journaling about stressful events: Effects of cognitive processing and emotional expression. *Annals of Behavioral Medicine, 24*(3), 244-250.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin, 96*(3), 465-490.
- Watson, D., Clark, N. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scale. *Journal of Personality and Social Psychology, 54*(6), 1063-1070.
<http://dx.doi.org/10.1037/0022-3514.54.6.1063>
- Weiss, D.S. (2007). The Impact of Event Scale: Revised. In J.P. Wilson & C. S. Tang (Eds.), *Cross-cultural assessment of psychological trauma and PTSD* (pp. 219-238). New York: Springer.
- Wilson, J. M., Weiss, A., & Shook, N. J. (2020). Mindfulness, self-compassion, and savoring: Factors that explain the relation between perceived social support and well-being. *Personality and Individual Differences, 152*, 109568.
<https://doi.org/10.1016/j.paid.2019.109568>
- Wong, Y. J., & Rochlen, A. B. (2009). Potential benefits of expressive writing for male college students with varying degrees of restrictive emotionality. *Psychology of Men & Masculinity, 10*(2), 149-159.
<https://psycnet.apa.org/doi/10.1037/a0015041>
- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology, 57*(3), 349-357.
<https://psycnet.apa.org/doi/10.1037/0022-006X.57.3.349>

- Zachariae, R., & Jensen-Johansen, M. (2011). Written emotional disclosure. In M. Watson & D. W. Kissane (Eds.), *Handbook of psychotherapy in cancer care* (pp. 89-103). Sussex: John & Wiley.
- Zachariae, R., & O'Toole, M. S. (2015). The effect of expressive writing intervention on psychological and physical health outcomes in cancer patients—a systematic review and meta-analysis. *Psycho-Oncology*, *24*(11), 1349-1359. <https://doi.org/10.1002/pon.3802>
- Zakowski, S. G., Herzer, M., Barrett, S. D., Milligan, J. G., & Beckman, N. (2011). Who benefits from emotional expression? An examination of personality differences among gynaecological cancer patients participating in a randomized controlled emotional disclosure intervention trial. *British Journal of Psychology*, *102*(3), 355-372. doi: 10.1348/000712610X524949
- Zheng, L., Lu, Q., & Gan, Y. (2019). Effects of expressive writing and use of cognitive words on meaning making and post-traumatic growth. *Journal of Pacific Rim Psychology*, *13*(5). doi:10.1017/prp.2018.31
- Zhou, C., Wu, Y., An, S., & Li, X. (2015). Effect of expressive writing intervention on health outcomes in breast cancer patients: A systematic review and meta-analysis of randomized controlled trials. *Plos One*, *10*(7), e0131802. doi:10.1371/journal.pone.0131802
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30-41. doi: 10.1207/s15327752jpa5201_2
- Zimmermann, J., Wolf, M., Bock, A., Peham, D., & Benecke, C. (2013). The way we refer to ourselves reflects how we relate to others: Associations between first-person pronoun use and interpersonal problems. *Journal of Research in Personality*, *47*(3), 218-225. <https://doi.org/10.1016/j.jrp.2013.01.008>

APPENDIX A

APPROVAL OF THE ETHICS COMMITTEE FOR MASTER'S AND PHD
THESES IN SOCIAL SCIENCES AND HUMANITIES

T.C.
BOĞAZIÇI ÜNİVERSİTESİ
Sosyal ve Beşeri Bilimler Yüksek Lisans ve Doktora Tezleri Etik İnceleme Komisyonu

Sayı: 2020/105

24 Şubat 2020

Nağme Ak
Psikoloji

Sayın Araştırmacı,

Daha önce onay almış olan SBB-EAK 2019/27 sayılı eski başlığı "Kayıp Duygusunun Yazılı Duygusal Dışavurum Paradigması ile İşlenmesi: Negatif Duygulanım, depresyon, ruminasyon ve inhibisyon eğiliminin paradigmanın yararı üzerindeki etkileri" olan projenizin başlığının "Kayıp Duygusunun Yazılı Duygusal Dışavurum Paradigması ile İşlenmesi: Negatif Duygulanımın paradigmanın yararı üzerindeki etkisi" olarak değiştirilmesi komisyonumuz tarafından 24 Şubat 2020 tarihli toplantıda incelenmiş ve uygun bulunmuştur.



Prof. Dr. Özlem Hesapçı Karaca



Prof. Dr. Feyza Çorapçı



Doç. Dr. Ebru Kaya



Doç. Dr. Nevra Seggie



Dr. Öğr. Üyesi Yasemin Sohtorik
İlkmen

APPENDIX B

CONSENT FORM FOR THE EXPERIMENTAL GROUP

Research Title: Processing Loss Using the Expressive Writing Paradigm: How Negative Affectivity Influences the Outcome

Project Implementer: Serra Müderrisoğlu, Assoc. Prof.

E-mail: serra@boun.edu.tr

Phone: ...

Researcher: Nağme Ak

E-mail: nagme.ak@boun.edu.tr

Phone: ...

This research project is being conducted by Nağme Ak, a student of the Clinical Psychology Master's Program at Boğaziçi University, under the supervision of Assoc. Prof. Serra Müderrisoğlu.

The aim of the study is to focus on the impact of writing about loss experiences. If you accept to participate, what is expected from you is to fill some questionnaires, approximately for 20 minutes, about your emotional state, thinking style, past and/or current events of your lives and their effects on you, your experiences gained from the events, whether you have people to share these and if there is any how you choose to share. Also, you are expected to attend the 15-min writing sessions for four (4) days. In these sessions, you are expected to focus on a "the loss of my life" kind of event or situation such as an opportunity you have missed, any material losses, a loved one (person, pet, etc.) lost by a break-up or death, any material or spiritual wishes etc.. **The selected event/situation does not have to be the most impactful event of your life.** The first day of writing, negative emotions are natural and normal and are expected to increase. However, this increase is expected to be short-lived. As a result of the fact that you are going to select the topic, if you feel overwhelmed by negative emotions, please switch the topic. Do not pressure yourself to continue writing.

You are expected to deliver your essays at the end of each day. These essays are not going to be analyzed one by one rather they are going to be collectively analyzed by a computer program and they will be turn into a statistical data. Your answers and essays are going to be confidential and only studied by the researchers. The results obtained will be used in scientific publishing. Your participation and sharing contribute in a great deal into the development of psychological support intervention programs.

Participation is completely voluntary. We do not expect you to pay anything and we will not pay you either. During the research, if you feel uncomfortable for any reason, you can leave. In such a case, your saying so to the researcher is enough. You are going to get 5 credits for your participation to 4 writing sessions and one follow-up session in which some of the questionnaires will be given (no writing session) 3 weeks later. In the case that you dropped out of the research without completing the writing sessions, you will receive credits based on the number of the completed sessions. **After 3 weeks from the completion of 4 days, there is going to be a follow-up session that you are going to set it and you are expected to attend.** At the end of the research, your questions about the study are going to be answered.

Before you sign this document, please ask your questions if there is any. When you have a question during the research, you can direct them to the researcher. Regarding your rights, you can consult to the he Ethics Committee for Master and PhD Theses in Social Sciences and Humanities.

I understand the information I have been told and have read. I have taken/ do not want to take a sample of this document (in this case, the researcher saves this document).

I am participating to this research completely voluntarily and I know that I can leave any time I want. I agree that the information I gave could be included scientific studies.

Participant's Name – Surname:

Signature:

Date (day/month/year)::/...../.....

APPENDIX C

CONSENT FORM FOR THE CONTROL GROUP

Research Title: Processing Loss Using the Expressive Writing Paradigm: How Negative Affectivity Influences the Outcome

Project Implementer: Serra Müderrisoğlu, Assoc. Prof.

E-mail: serra@boun.edu.tr

Phone: ...

Researcher: Nağme Ak

E-mail: nagme.ak@boun.edu.tr

Phone: ...

This research project is being conducted by Nağme Ak, a student of the Clinical Psychology Master's Program at Boğaziçi University, under the supervision of Assoc. Prof. Serra Müderrisoğlu.

The aim of the study is to focus on the impact of writing. If you accept to participate, what is expected from you is to fill some questionnaires, approximately for 20 minutes, about your emotional state, thinking style, past and/or current events of your lives and their effects on you, your experiences gained from the events, whether you have people to share these and if there is any how you choose to share. Also, you are expected to attend the 15-min writing sessions for four (4) days.

You are expected to deliver your essays at the end of each day. These essays are not going to be analyzed one by one rather they are going to be collectively analyzed by a computer program and they will be turn into a statistical data. Your answers and essays are going to be confidential and only studied by the researchers. The results obtained will be used in scientific publishing. Your participation and sharing contribute in a great deal into the development of psychological support intervention programs.

Participation is completely voluntary. We do not expect you to pay anything and we will not pay you either. During the research, if you feel uncomfortable for any reason, you can leave. In such a case, your saying so to the researcher is enough. You are going to get 5 credits for your participation to 4 writing sessions and one follow-up session in which some of the questionnaires will be given (no writing session) 3 weeks later. In the case that you dropped out of the research without completing the writing sessions, you will receive credits based on the number of the completed sessions. **After 3 weeks from the completion of 4 days, there is going to be a follow-up session that you are going to set it and you are expected to attend.** At the end of the research, your questions about the study are going to be answered.

Before you sign this document, please ask your questions if there is any. When you have a question during the research, you can direct them to the researcher. Regarding your rights, you can consult to the he Ethics Committee for Master and PhD Theses in Social Sciences and Humanities.

I understand the information I have been told and have read. I have taken/ do not want to take a sample of this document (in this case, the researcher saves this document).

I am participating to this research completely voluntarily and I know that I can leave any time I want. I agree that the information I gave could be included scientific studies.

Participant's Name – Surname:

Signature:

Date (day/month/year)::/...../.....

APPENDIX D
DEMOGRAPHIC FORM

Yaş: _____
(Age)

Cinsiyet: _____
(Gender)

Okumakta olduğunuz bölüm: _____
(Department)

Kiminle beraber yaşıyorsunuz? (*Who do you live with?*)

- a. Ailemle
(Family)
- b. Yurtta
(Dormitory)
- c. Ev arkadaş(larla)
[Housemate(s)]
- d. Yalnız
(Alone)
- e. Akrabalarla
(Relatives)
- f. Diğer: _____
(Other)

Terapi deneyiminiz oldu mu? (*Have you ever seen a therapist?*)

1. Evet (Yes)
Geçmişte (Past)
Şu anda (Current)
2. Hayır (No)

Hayatınızda en uzun süre yaşadığınız yer:
(*The area in which you have lived most of your life*)

- a. Köy
(Village)
- b. Kasaba
(Town)
- c. Şehir
(City)
- d. Büyükşehir -Istanbul, Ankara, İzmir, Bursa, Adana-
(Metropolitan)
- e. Türkiye dışı
(Abroad)

Aileniz nerede yaşıyor? (*Where does your family live?*)

- a. İstanbul
- b. İstanbul dışı (*Other than Istanbul*)

Kendiniz dahil kaç kardeşiniz? ____

(How many siblings do you have? Please answer by including yourself)

Ailenizin eğitim durumu:

(Education levels of your parents)

	Anneniz (Mother)	Babanız (Father)
Öğrenimi yok (None)		
İlkokul mezunu (Primary School)		
Ortaokul mezunu (Middle School)		
Lise mezunu (High School)		
Üniversite mezunu (B.A)		
Lisansüstü (M.A)		
Diğer (Other)		

APPENDIX E

POSITIVE AND NEGATIVE AFFECT SCHEDULE (PANAS)

Aşağıda bazı duyguları ve ruh hallerini yansıtan sözcükler bulunmaktadır. Her sözcüğün sizi SON ZAMANLARDA (son 1-2 gündür) ne derece ifade ettiğini aşağıdaki ölçüğe göre değerlendirin.

[Below, there are words referring to some emotions and states. Please, indicate the extent you have felt this way RECENTLY (last 1-2 days)].

1	2	3	4	5
Çok az/hiç (Slightly/never)	Biraz Little	Orta derecede Moderately	Oldukça Quite a bit	Son derece Extremely
___ sıkıntı içinde (<i>distressed</i>)		___ sinirli (<i>nervous</i>)		
___ huzursuz (<i>anxious</i>)		___ dikkati açık (<i>alert</i>)		
___ heyecanlı (<i>excited</i>)		___ utanmış (<i>ashamed</i>)		
___ rahatsız (<i>uneasy</i>)		___ ilham gelmiş (<i>inspired</i>)		
___ güçlü (<i>strong</i>)		___ gergin (<i>jittery</i>)		
___ suçlu (<i>guilty</i>)		___ azimli/kararlı (<i>determined</i>)		
___ korkmuş (<i>scared</i>)		___ dikkatini vermiş (<i>attentive</i>)		
___ düşmanca (<i>hostile</i>)		___ ilgili (<i>interested</i>)		
___ coşkulu/hevesli (<i>enthusiastic</i>)		___ canlı/hareketli (<i>active</i>)		
___ kendinden gurur duyan (<i>proud</i>)		___ korku içinde (<i>afraid</i>)		
___ üzgün (<i>upset</i>)		___ öfkeli (<i>angry</i>)		
___ mutlu (<i>happy</i>)		___ neşeli (<i>joyful</i>)		
___ kaygılı (<i>worried</i>)		___ umutsuz (<i>hopeless</i>)		
___ huzurlu (<i>peaceful</i>)		___ sakin (<i>calm</i>)		
___ yıldırgan (<i>daunted</i>)		___ isteksiz (<i>reluctant</i>)		
___ memnun (<i>pleased</i>)		___ umutlu (<i>hopeful</i>)		

Şimdi de her sözcüğün sizi **GENEL OLARAK** ne derece ifade ettiğini aşağıdaki ölçüğe göre değerlendirin.

(Now, indicate the extent each word represents you **IN GENERAL**.)

1	2	3	4	5
Çok az/hiç	Biraz	Orta derecede	Oldukça	Son derece
<i>(Slightly/never)</i>	<i>(Little)</i>	<i>(Moderately)</i>	<i>(Quite a bit)</i>	<i>(Extremely)</i>

___ sıkıntı içinde (<i>distressed</i>)	___ sinirli (<i>nervous</i>)
___ huzursuz (<i>anxious</i>)	___ dikkati açık (<i>alert</i>)
___ heyecanlı (<i>excited</i>)	___ utanmış (<i>ashamed</i>)
___ rahatsız (<i>uneasy</i>)	___ ilham gelmiş (<i>inspired</i>)
___ güçlü (<i>strong</i>)	___ gergin (<i>jittery</i>)
___ suçlu (<i>guilty</i>)	___ azimli/kararlı (<i>determined</i>)
___ korkmuş (<i>scared</i>)	___ dikkatini vermiş (<i>attentive</i>)
___ düşmanca (<i>hostile</i>)	___ ilgili (<i>interested</i>)
___ coşkulu/hevesli (<i>enthusiastic</i>)	___ canlı/hareketli (<i>active</i>)
___ kendinden gurur duyan (<i>proud</i>)	___ korku içinde (<i>afraid</i>)
___ üzgün (<i>upset</i>)	___ öfkeli (<i>angry</i>)
___ mutlu (<i>happy</i>)	___ neşeli (<i>joyful</i>)
___ kaygılı (<i>worried</i>)	___ umutsuz (<i>hopeless</i>)
___ huzurlu (<i>peaceful</i>)	___ sakin (<i>calm</i>)
___ yıldırgan (<i>daunted</i>)	___ isteksiz (<i>reluctant</i>)
___ memnun (<i>pleased</i>)	___ umutlu (<i>hopeful</i>)

APPENDIX F

BECK'S DEPRESSION INVENTORY (BDI)

Aşağıda gruplar halinde bazı cümleler yazılmıştır. Her gruptaki cümleleri dikkatle okuyunuz. Bugün dahil son bir hafta içinde kendinizi nasıl hissettiğinizi en iyi anlatan cümleyi seçiniz. Seçtiğiniz cümlelerin yanındaki numarayı daire içine alınız. Bir grupta durumunuzu tanımlayan birden fazla cümle varsa, her birini daire içine alarak işaretleyiniz. Seçiminizi yapmadan önce her gruptaki cümlelerin hepsini dikkatle okuyunuz.

(Below, there are some sentence groups. Please, read each group carefully. Select the best sentence referring how you have been feeling last week including today. Circle the number next to the sentence you chose. If there are more than one sentence in the same group, circle each one. Before you choose, read each sentence in that group carefully.)

- A. 0 Kendimi üzüntülü ve sıkıntılı hissetmiyorum.
(I do not feel sad and distressed.)
1 Kendimi üzüntülü ve sıkıntılı hissediyorum.
(I feel sad and distressed.)
2 Hep üzüntülü ve sıkıntılıyım. Bundan kurtulamıyorum.
(I am sad and distressed all the time. I can't snap out of it.)
3 O kadar üzüntülü ve sıkıntılıyım ki artık dayanamıyorum.
(I am so sad and distressed that I can't stand it anymore.)
- B. 0 Gelecek hakkında umutsuz ve karamsar değilim
(I am not particularly hopeless and pessimistic about the future.)
1 Gelecek hakkında karamsarım.
(I am pessimistic about the future.)
2 Gelecekte beklediğim hiçbir şey yok.
(I have nothing to look forward to.)
3 Geleceğim hakkında umutsuzum ve sanki düzelmeyecekmiş gibi geliyor.
(I feel the future is hopeless and that things will not improve.)
- C. 0 Kendimi başarısız bir insan olarak görmüyorum.
(I do not feel like a failure.)
1 Çevremdeki birçok kişiden daha çok başarısızlıklarım olmuş gibi geliyor.
(I feel I have failed more than most of the people around me.)
2 Geçmişime baktığımda başarısızlıklarla dolu olduğunu görüyorum.
(As I look back on my life, all I can see is a lot of failures.)
3 Kendimi tümüyle başarısız bir insan olarak görüyorum.
(I feel I am a complete failure as a person.)
- D. 0 Birçok şeyden eskisi kadar zevk alıyorum.
(I get as much satisfaction out of things as I used to.)
1 Eskiden olduğu gibi her şeyden hoşlanmıyorum.
(I don't enjoy things the way I used to.)
2 Artık hiçbir şey bana tam anlamıyla zevk vermiyor.
(I don't get real satisfaction out of anything anymore.)
3 Her şeyden sıkılıyorum.
(I am dissatisfied or bored with everything.)

- E. 0 Kendimi herhangi bir şekilde suçlu hissetmiyorum.
(*I don't feel particularly guilty.*)
1 Kendimi zaman zaman suçlu hissediyorum.
(*I feel guilty a good part of the time.*)
2 Çoğu zaman kendimi suçlu hissediyorum.
(*I feel quite guilty most of the time.*)
3 Kendimi her zaman suçlu hissediyorum.
(*I feel guilty all of the time.*)
- F. 0 Kendimden memnunum.
(*I don't feel disappointed in myself.*)
1 Kendi kendimden pek memnun değilim.
(*I am disappointed in myself.*)
2 Kendime çok kızıyorum.
(*I am angry with myself.*)
3 Kendimden nefret ediyorum.
(*I hate myself.*)
- G. 0 Başkalarından daha kötü olduğumu sanmıyorum.
(*I don't feel I am any worse than anybody else.*)
1 Zayıf yanlarım ya da hatalarım için kendi kendimi eleştiririm.
(*I am critical of myself for my weaknesses or mistakes.*)
2 Hatalarımdan dolayı her zaman kendimi kabahatli bulurum.
(*I blame myself all the time for my faults.*)
3 Her aksilik karşısında kendimi kabahatli bulurum.
(*I blame myself for everything bad that happens.*)
- I. 0 Her zamankinden fazla içimden ağlamak gelmiyor.
(*I don't cry any more than usual.*)
1 Zaman zaman içimden ağlamak geliyor.
(*I sometimes feel like crying.*)
2 Çoğu zaman ağlıyorum
(*I cry most of the time.*)
3 Eskiden ağlayabilirdim şimdi istesem de ağlayamıyorum.
(*I used to be able to cry, but now I can't cry even though I want to.*)
- J. 0 Şimdi her zaman olduğumdan daha sinirli değilim.
(*I am no more irritated by things than I ever was.*)
1 Eskisine kıyasla daha kolay kızıyor ya da sinirleniyorum.
(*I am slightly more irritated now than usual.*)
2 Şimdi hep sinirliyim.
(*I feel irritated all the time.*)
3 Bir zamanlar beni sinirlendiren şeyler şimdi hiç sinirlendirmiyor.
(*I now do not feel irritated by things that I used to be.*)
- K. 0 Başkaları ile görüşmek, konuşmak isteğimi kaybetmedim.
(*I have not lost interest in other people.*)
1 Başkaları ile eskisinden daha az konuşmak, görüşmek istiyorum.
(*I am less interested in other people than I used to be.*)

- 2 Başkaları ile konuşmak, görüşmek isteğimi kaybettim.
(*I have lost most of my interest in other people.*)
- 3 Hiç kimseyle konuşmak, görüşmek istemiyorum.
(*I have lost all of my interest in other people.*)
- L. 0 Eskiden olduğu kadar kolay karar verebiliyorum.
(*I make decisions about as well as I ever could.*)
- 1 Eskiden olduğu kadar kolay karar veremiyorum.
(*I put off making decisions more than I used to.*)
- 2 Karar verirken eskisine kıyasla çok güçlük çekiyorum
(*I have greater difficulty in making decisions more than I used to.*)
- 3 Artık hiç karar veremiyorum.
(*I can't make decisions at all anymore.*)
- M. 0 Aynada kendime baktığımda bir değişiklik görmüyorum.
(*I don't feel that I look any worse than I used to.*)
- 1 Daha yaşlanmışım ve çirkinleşmişim gibi geliyor.
(*I am worried that I am looking old or unattractive.*)
- 2 Görünüşümün çok değiştiğini ve daha çirkinleştiğimi hissediyorum.
(*I feel there are changes in my appearance and I look unattractive.*)
- 3 Kendimi çok çirkin buluyorum
(*I believe that I look ugly.*)
- N. 0 Eskisi kadar iyi çalışabiliyorum.
(*I can work about as well as before.*)
- 1 Bir şeyler yapabilmek için gayret göstermek gerekiyor.
(*It takes an extra effort to get started at doing something.*)
- 2 Herhangi bir şeyi yapabilmek için kendimi çok zorlamam gerekiyor.
(*I have to push myself very hard to do anything.*)
- 3 Hiçbir şey yapamıyorum.
(*I can't do any work at all.*)
- O. 0 Her zamanki gibi uyuyabiliyorum.
(*I can sleep as well as usual.*)
- 1 Eskiden olduğu gibi uyuyamıyorum.
(*I don't sleep as well as I used to.*)
- 2 Her zamankinden 1-2 saat erken uyanıyorum ve tekrar uyuyamıyorum.
(*I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.*)
- 3 Her zamankinden çok daha erken uyanıyorum ve tekrar uyuyamıyorum.
(*I wake up several hours earlier than I used to and cannot get back to sleep.*)
- P. 0 Her zamankinden daha çabuk yorulmuyorum.
(*I don't get more tired than usual.*)
- 1 Her zamankinden daha çabuk yoruluyorum.
(*I get tired more easily than I used to.*)
- 2 Yaptığım hemen her şey beni yoruyor.
(*I get tired from doing almost anything.*)
- 3 Kendimi hiçbir şey yapamayacak kadar yorgun hissediyorum.
(*I am too tired to do anything.*)

- R. 0 İştahım her zamanki gibi.
(*My appetite is no worse than usual.*)
1 İştahım eskisi kadar iyi değil.
(*My appetite is not as good as it used to be.*)
2 İştahım çok azaldı.
(*My appetite is much worse now.*)
3 Artık hiç iştahım yok.
(*I have no appetite at all anymore.*)
- S. 0 Son zamanlarda kilo vermedim.
(*I haven't lost much weight, if any, lately.*)
1 İki kilodan fazla verdim.
(*I have lost more than two kilograms.*)
2 Dört kilodan fazla verdim.
(*I have lost more than four kilograms.*)
3 Altı kilodan fazla verdim.
(*I have lost more than six kilograms.*)
() Daha az yiyerek kilo vermeye çalışıyorum.
(*I am trying to lose weight by eating less.*)
() Daha az yiyerek kilo vermeye çalışmıyorum.
(*I am not trying to lose weight by eating less.*)
- T. 0 Sağlığım beni fazla endişelendirmiyor.
(*I am no more worried about my health than usual.*)
1 Ağrı, sancı, mide bozukluğu gibi rahatsızlıklar beni endişelendiriyor.
(*I am worried about physical problems like aches, pains, or upset stomach.*)
2 Sağlığım beni endişelendirdiği için başka şeyleri düşünmek zorlaşıyor.
(*I am very worried about physical problems; it's hard to think of much else.*)
3 Sağlığım hakkında o kadar endişeleniyorum ki başka hiçbir şey düşünemiyorum.
(*I am so worried about my physical problems that I cannot think of anything else.*)
- U. 0 Son zamanlarda cinsel konulara olan ilgimde bir değişme fark etmedim.
(*I have not noticed any recent change in my interest in sex.*)
1 Cinsel konularla eskisinden daha az ilgiliyim.
(*I am less interested in sex than I used to be.*)
2 Cinsel konularla şimdi çok daha az ilgiliyim.
(*I have almost no interest in sex.*)
3 Cinsel konulara olan ilgimi tamamen kaybettim.
(*I have lost interest in sex completely.*)
- V. 0 Bana cezalandırılmışım gibi gelmiyor.
(*I don't feel I am being punished.*)
1 Cezalandırılabilceğimi seziyorum.
(*I feel I may be punished.*)
2 Cezalandırılmayı bekliyorum.
(*I expect to be punished.*)
3 Cezalandırıldığımı hissediyorum.
(*I feel I am being punished.*)

11. ___ İstenmeyen düşünceleri zihnimden bir türlü atamam.
(*I have never been able to distract myself from unwanted thoughts.*)
12. ___ Bir problem hakkında saatlerce düşünsem de sorunu açıkça anlamak için biraz daha zamana ihtiyaç duyarım.
(*Even if I think about a problem for hours, I still have a hard time coming to a clear understanding.*)
13. ___ Hakkında ne kadar düşünürsem düşüneyim, bazı sorunlarla ilgili net bir çözüme ulaşmam benim için çok zordur.
(*It is very difficult for me to come to a clear conclusion about some problems, no matter how much I think about it.*)
14. ___ Bazen bir şeyler hakkında saatlerce oturup düşündüğüm olur.
(*Sometimes I realize I have been sitting and thinking about something for hours.*)
15. ___ Bir meseleyi çözmeye çalışırken, zihnimde farklı noktalara dağılan uzun bir tartışma yaşar gibi olurum.
(*When I am trying to work out a problem, it is like I have a long debate in my mind where I keep going over different points.*)
16. ___ Oturup geçmişteki güzel olayları hatırlamak hoşuma gider.
(*I like to sit and reminisce about pleasant events from the past.*)
17. ___ Heyecan verici bir olayı beklerken, bu olay ile alakalı düşünceler, o anda yaptığım işi engeller.
(*When I am looking forward to an exciting event, thoughts of it interfere with what I am working on.*)
18. ___ Bazen, bir konuşma sırasında bile, alakasız düşüncelerin zihnime hücum ettiği olur.
(*Sometimes even during a conversation, I find unrelated thoughts popping into my head.*)
19. ___ Yakın zamanda önemli bir görüşme yapacaksam, zihnimde sürekli olarak bunu tekrar etme eğilimim vardır.
(*When I have an important conversation coming up, I tend to go over it in my mind again and again.*)
20. ___ Önemli bir olay yaklaşıyorsa bununla ilgili düşünmekten kendimi alamam.
(*If I have an important event coming up, I can't stop thinking about it.*)

APPENDIX H

THE LIFE EXPERIENCES QUESTIONNAIRE

Aşağıda, insan yaşamını etkileyen bazı olaylar sıralanmıştır. Siz, bu olaylardan herhangi birini yaşadınız mı? Eğer yaşadığınız ve/veya birden fazla kez yaşadığınız, yaşadığınız her olay için, maddelerin altında yer alan yaş aralıklarından hangisinde yaşadığınızı yuvarlak içine alarak belirtiniz. Olayları şimdi de yaşıyorsanız şimdi şikkını da yuvarlak içine alınız. Eğer yaşadığınız olay, bir yaş aralığından daha fazla süreyi kapsıyorsa, lütfen olayın ilk oluş tarihini yuvarlak içine alın. Aşağıdaki maddelerde yer almayan, ancak yaşamınızı etkileyen başka bir olay varsa lütfen “Diğer” seçeneğinde açıklayınız ve yine olayı yaşadığınız yaş aralığını belirtiniz.

(Listed below, there are some life experiences that can influence people. Have you ever experienced any of the listed events? If you have once and/or more than once, for each of the time you experienced, circle the age period under the sentence. If you have currently experiencing the event, circle the option current. If the event has progressed through more than one age period listed, please circle the time that the event has begun. If there is an influential life event that is not covered by this questionnaire, please write it into the “Other” option and circle the age period it happened.)

- Aile üyelerinizden birinin önemli bir sağlık sorunu oldu mu?
(Has any of your family members experienced a health problem?)

Evet (Yes) _____ Hayır (No) _____
0-6 yaş 7-11 yaş 12-15 yaş 16-19 yaş 20 ve Şimdi
(0-6 age) (7-11 age) (12-15 age) (16-19 age) (20 and later) (Current)

- Ailenizde ekonomik problemler ya da gelir durumunda ciddi azalmalar, iş kaybı, iflas, uzun süreli işsizlik oldu mu?
(Has your family ever experienced any economic problems like decrease in income, loss of a job, bankruptcy, unemployment for a long time?)

Evet (Yes) _____ Hayır (No) _____
0-6 yaş 7-11 yaş 12-15 yaş 16-19 yaş 20 ve Şimdi
(0-6 age) (7-11 age) (12-15 age) (16-19 age) (20 and later) (Current)

- Anne ve babanız arasında ayrılık/boşanma oldu mu?
(Have your parents ever been separated/divorced?)

Evet (Yes) _____ Hayır (No) _____
0-6 yaş 7-11 yaş 12-15 yaş 16-19 yaş 20 ve Şimdi
(0-6 age) (7-11 age) (12-15 age) (16-19 age) (20 and later) (Current)

- Önemli bir kişisel yaralanma, hastalık veya sağlık sorunu yaşadınız mı?
(Have you ever experienced any personal injury or health problems?)

Evet (Yes) _____ Hayır (No) _____
0-6 yaş 7-11 yaş 12-15 yaş 16-19 yaş 20 ve Şimdi
(0-6 age) (7-11 age) (12-15 age) (16-19 age) (20 and later) (Current)

- Çok yakınınızda bir kayıp (ölüm) yaşadınız mı? (Kim ya da kimler olduğunu işaretleyiniz)

-Anne (<i>Mother</i>)	Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____			
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

-Baba (<i>Father</i>)	Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____			
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

-Kardeş (<i>Sibling</i>)	Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____			
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

-Yakın Arkadaş (<i>Close Friend</i>)	Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____			
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

-Diğer kayıp (Kim olduğunu belirtiniz) [*Other loss- please write who s/he was*]

.....

Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____				
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

 - Hayatınızda hiç şiddete maruz kaldınız mı?
(*Have you ever exposed to violence?*)

Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____				
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

 - Hayatınızda şiddetli bir deprem, sel, heyelan, su baskını, yangın gibi afetler yaşadınız mı?
(*Have you ever experienced a natural disaster such as earthquake, flood, and fire?*)

Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____				
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

 - Sizin için önemli olan bir romantik ilişki bitişi yaşadınız mı?
(*Have you ever experienced a brak-up of a romantic relationship?*)

Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____				
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

 - Diğer (Belirtiniz)
(*Other- please write specifically if there is any*)

Evet (<i>Yes</i>)_____	Hayır (<i>No</i>) _____				
0-6 yaş (0-6 age)	7-11 yaş (7-11 age)	12-15 yaş (12-15 age)	16-19 yaş (16-19 age)	20 ve (20 and later)	Şimdi (Current)

APPENDIX I

THE EVENT IMPACT, PREVIOUS DISCLOSURE, INHIBITION SCALE

(EPDIS)

Sizden istediğimiz, önümüzdeki dört gün boyunca, hayatınızın herhangi bir döneminde elinizden kaçan bir fırsat, maddi kayıp, ayrılık ya da ölüm nedeniyle kaybettiğiniz biri (kişi, evcil hayvanınız, vb.), maddi ya da manevi olarak isteyip de elde edemediğiniz bir dileğiniz gibi, ‘hayatınızdaki bir kayıp’ olarak bir olay ya da durum hakkında yazmanız. Bu olay ya da durum sizi çok üzmüş, endişelendirmiş ya da sarsmış olabilir. Bu, üstünde sürekli düşünmüş olabileceğiniz gibi, uzun zaman düşünmekten kaçındığınız bir konu da olabilir. Yazmaya başlamadan önce, yaşadığınız olay ya da durumla ilgili olarak aşağıdaki soruları cevaplayınız. *(We want you to determine a “the loss of my life” kind of event or situation such as an opportunity you have missed, any material losses, a loved one (person, pet, etc.) lost by a break-up or death, any material or spiritual wishes and to write about it for the next four days. The experience you chose might have make you upset, worried, or shaken. It might also be an experience that you constantly thought about or that you avoided to think about for a long time. Before you start writing, please answer the questions below regarding that experience of yours.)*

- Yaşadığınız bu durum, o dönemde yaşamınızı ne derece etkiledi?
(To what extent the experience affected your life at that time?)

1	2	3	4	5
Hiç				Son derece
<i>(Not at all)</i>				<i>(Extremely)</i>

- Şu anda bu olayın etkilerini hangi yoğunlukta hissediyorsunuz?
(To what extent you currently feel the effects of the event?)

1	2	3	4	5
Hiç				Son derece
<i>(Not at all)</i>				<i>(Extremely)</i>

- Yaşadığımız bu olayın sizi ne derece değiştirdiğini düşünüyorsunuz?
(To what extent the experience has changed you?)

1	2	3	4	5
Hiç				Son derece
<i>(Not at all)</i>				<i>(Extremely)</i>

- Duygusal anlamda tepkileriniz zaman içinde nasıl değişti?
(How have your emotional reactions changed with time?)

1	2	3	4	5
Çok azaldı/geçti	Oldukça azaldı	Aynı Kaldı	Biraz arttı	Çok arttı
<i>(Almost gone)</i>	<i>(Lowered)</i>	<i>(Same)</i>	<i>(Increased)</i>	<i>(Much increased)</i>

- Bu olay hakkında hiç kimseyle konuştunuz mu? __Evet __Hayır
(Have you ever talked to someone about the experience? __Yes ____No)
Eğer cevabınız hayır ise nedenini açıklar mısınız?
(If you have not, please explain why not.)

Eğer cevabınız hayır ise aşağıdaki soruları cevaplamayın
(If you have not, do not answer the questions below.)

- Yaşadıklarınızla ilgili olarak ilk kez olaydan ne kadar zaman sonra konuştunuz?
Yaklaşık bir zaman belirtiniz. _____
(How long after the experience did you talk about it? Write it approximately. ____)
- Genel olarak düşündüğünüzde bu durum hakkında konuşmak sizi nasıl hissettirdi?
(Generally, what did you feel about talking about the experience?)

1	2	3	4
Daha kötü (Worse)	Bir şey değıştirmede (Nothing changed)	Daha iyi hissettirdi (Felt better)	Çok daha iyi hissettirdi (Felt much more better)

Aşağıdaki soruları bu olay hakkında en sık konuştuğunuz kişileri düşünerek cevaplayınız.
(Please answer the questions below considering the people who you mostly talked to)

- Yaşadıklarınızla ilgili duygularınızı ne derece paylaşabildiniz?
(To what extent did you share your emotions related to the experience?)

1	2	3	4	5
Hiç (Not at all)				Son derece (Extremely)

- Olayla ilgili konuşma ihtiyacınızı ne derece giderdiniz?
(To what extent you satisfied your need to talk about it?)

1	2	3	4	5
Hiç (Not at all)				Son derece (Extremely)

- Yaşadıklarınızı/Hissettiklerinizi paylaşmak sizin için ne kadar kolaydı?
(To what extent you found it easy to share your experience / emotions?)

1	2	3	4	5
Hiç (Not at all)				Son derece (Extremely)

- Deneyiminizi paylaşmanın bu kişileri rahatsız ettiğini düşündünüz mü?
(Have you ever thought that your sharing was bothering others?)

1	2	3	4	5
Hiçbir zaman (Never)	Nadiren (Rarely)	Bazen (Sometimes)	Çoğu zaman (Often)	Her zaman (Always)

- Bu kişilerin rahatsız olabileceğini düşünmek sizi deneyiminizi paylaşmaktan alıkoydu mu?
(Have you ever felt restricted to share your experience with respect to the thought that others would be bothered by it?)

1	2	3	4	5
Hiçbir zaman (Never)	Nadiren (Rarely)	Bazen (Sometimes)	Çoğu zaman (Often)	Her zaman (Always)

- Bu kişilerin olayı ya da sizin olaya verdiğiniz tepkileri önemsemediğini ya da küçümsediğini düşündünüz mü?
(Have you ever thought that those people disregarded or belittled the experience or your reactions to it?)

1	2	3	4	5
Hiçbir zaman (Never)	Nadiren (Rarely)	Bazen (Sometimes)	Çoğu zaman (Often)	Her zaman (Always)

- Siz deneyiminiz hakkında konuşmaya çalıştığınızda bu kişiler konuyu konuşmaktan kaçındı mı ya da konuyu değiştirmeye çalıştı mı?
(Did those people ever avoid or change the subject when you were trying to talk about your experience?)

1	2	3	4	5
Hiçbir zaman (Never)	Nadiren (Rarely)	Bazen (Sometimes)	Çoğu zaman (Often)	Her zaman (Always)

- Yaşadıklarınızı öğrendikten sonra bu kişilerin sizin hakkınızdaki düşüncelerinin değiştiğini hissettiniz mi?
(Have you ever felt that the opinions of those people about you have changed after learning what you have experienced?)

1	2	3
Evet, olumlu yönde (Yes, positively)	Evet, olumsuz yönde (Yes, negatively)	Hayır (No)

APPENDIX J

IMPACT OF EVENT SCALE- REVISED (IES-R)

Aşağıda, stresli bir yaşam olayından sonra insanların yaşayabileceği bazı zorlukların bir listesi sunulmuştur. Her cümleyi dikkatlice okuyunuz. Bir önceki ölçeği doldururken belirlediğiniz olayı/durumu düşünerek geçtiğimiz yedi gün içerisinde, bu zorlukların sizi ne kadar rahatsız ettiğini cümlelerin sağındaki beş kutucuktan yalnızca birini işaretleyerek belirtiniz.

(Below, there is a list that contains some possible difficulties people might experience after a stressful life event. Please read each sentence carefully. By thinking the loss experience you have chosen when you were filling the previous form, mark only one of the five boxes right to the sentence based on the degree that the listed difficulties have bothered you for the last seven days.)

	Hiç (Never)	Biraz (Little)	Orta düzey (Moderately)	Oldukça (Quite a bit)	Çok Fazla (Extremely)
Benzeyen her şey, olayla ilgili duygularımı aklıma getiriyor ve hatırlatıyor <i>(Any reminder brought back feelings about it)</i>	0	1	2	3	4
Uykumu sürdürmekte, kesintisiz ve derin bir uyku uyumakta zorlanıyorum, uykum bölünüyor <i>(I had trouble staying asleep, having a deep sleep.)</i>	0	1	2	3	4
Olayla ilgisiz ve farklı şeyler dahi bana olayı hatırlatıyor, aklıma getiriyor ve düşündürüyor <i>(Other things even the irrelevant ones reminded me of it and kept making me think about it)</i>	0	1	2	3	4
Kendimi huzursuz ve öfkeli hissediyorum <i>(I feel irritable and angry)</i>	0	1	2	3	4
Olayı düşündüğümde, olayı hatırlatan şeylerle karşılaştığımda keyfimin kaçmasına, canımın sıkılmasına izin vermiyorum <i>(I avoided letting myself get upset when I thought about it or was reminded of it)</i>	0	1	2	3	4

	Hiç (Never)	Biraz (Little)	Orta düzey (Moderately)	Oldukça (Quite a bit)	Çok Fazla (Extremely)
İstemediğim halde olay aklıma geliyor ve onu düşünmek zorunda kalıyorum (It came to my mind and I thought about it when I didn't mean to)	0	1	2	3	4
Sanki olayı yaşamamışım, olmamış ve gerçek değilmiş gibi hissediyorum (I feel as if it hadn't happened or wasn't real.)	0	1	2	3	4
Olayı hatırlatan durum, yer ve koşullardan uzak duruyorum, kaçınıyorum (I stayed away from reminders like situations and places.)	0	1	2	3	4
Olayla ilgili görüntüler fotoğraf gibi, film gibi gözümün önünde canlanıyor (Visual of it popped into my mind like pictures)	0	1	2	3	4
Ani ses, görüntü ve hareketlerden çabuk irkiliyorum ve abartılı tepkiler veriyorum (I was easily startled and jumpy by sudden voices, visions, and actions.)	0	1	2	3	4
Olayı düşünmemeye çalışıyorum (I tried not to think about it.)	0	1	2	3	4
Olayla ilgili birçok duyguyu hala taşıdığımı fark ettim fakat bunların üzerinde durmuyorum ve çözmeye çalışmıyorum (I am aware that I still had a lot of feelings about it, but I didn't deal with them)	0	1	2	3	4
Sanki bütün duygularımı kaybetmiş gibi hissediyorum Kendimi hissizleşmiş ve donuklaşmış gibi algılıyorum (I feel like I lost all my emotions. My feelings about it are kind of numb.)	0	1	2	3	4
Zaman zaman olay sırasındaki duygularımı yeniden hatırlıyorum ve sanki o anı yeniden yaşıyormuş gibi tepkiler gösteriyorum (I remember my feelings at that time, and I react as if I was back at that time.)	0	1	2	3	4
Uykuya dalmakta zorluk çekiyorum (I had trouble falling asleep.)	0	1	2	3	4

	Hiç (Never)	Biraz (Little)	Orta düzey (Moderately)	Oldukça (Quite a bit)	Çok Fazla (Extremely)
Olayla ilgili yaşadığım duyguları o kadar canlı hatırlıyorum ki, sanki dalga dalga üzerime geliyorlar (<i>I had waves of strong feelings about it.</i>)	0	1	2	3	4
Olayı hafızamdan silmeye ve unutmaya çalışıyorum (<i>I tried to remove it from my memory and to forget.</i>)	0	1	2	3	4
Dikkatimi toplamada ve yoğunlaşmada zorluk çekiyorum (<i>I had trouble concentrating.</i>)	0	1	2	3	4
Olayı hatırlatan şeylerle karşılaştığımda, terleme, kızarma, titreme, çarpıntı, nefes alma güçlüğü, göğüste baskı hissi gibi bedensel belirtiler yaşıyorum (<i>Reminders of it caused me to have physical reactions like sweating, trouble breathing, and chest pain.</i>)	0	1	2	3	4
Olayla ilgili rüyalar görüyorum (<i>I had dreams about it.</i>)	0	1	2	3	4
Kendimi tetikte ve diken üstünde hissediyorum, güvenliğimle ilgili endişeler duyuyorum (<i>I am worried about my safety and I felt watchful and on-guard.</i>)	0	1	2	3	4
Olay hakkında konuşmamaya çalışıyorum (<i>I tried nor to talk about it.</i>)	0	1	2	3	4

APPENDIX K

POST-TRAUMATIC GROWTH INVENTORY (PTGI)

Aşağıda, önceki anketleri doldururken belirlemiş olduğunuz ve “hayatınızdaki bir kayıp” olarak değerlendirdiğiniz olay ya da durum nedeniyle yaşamınızda olabilecek bazı değişiklikler verilmektedir. Her cümleyi dikkatle okuyunuz ve belirtilen değişikliğin sizin için ne derece gerçekleştiğini aşağıdaki ölçeği kullanarak belirtiniz.

- 0 = Yaşadığım kayıp nedeniyle böyle bir değişiklik yaşamadım
1 = Yaşadığım kayıp nedeniyle bu değişikliği çok az derecede yaşadım
2 = Yaşadığım kayıp nedeniyle bu değişikliği az derecede yaşadım
3 = Yaşadığım kayıp nedeniyle bu değişikliği orta derecede yaşadım
4 = Yaşadığım kayıp nedeniyle bu değişikliği oldukça fazla derecede yaşadım
5 = Yaşadığım kayıp nedeniyle bu değişikliği aşırı derecede yaşadım

(Below, there is a list that contains some changes that you might have experience after “the loss of your life” which you have selected previously. Please read each sentence carefully and mark the number referring the extent you have experienced by using the scale below.

- 0 = I didn't experience this change as a result of my loss.
1 = I experienced this change to a very small degree as a result of my loss.
2 = I experienced this change to a small degree as a result of my loss.
3 = I experienced this change to a moderate degree as a result of my loss.
4 = I experienced this change to a great degree as a result of my loss.
5 = I experienced this change to a very great degree as a result of my loss.)*

	0	1	2	3	4	5
1. Hayatıma verdiğim değer arttı						
2. Hayatımın kıymetini anladım. <i>(I have a greater appreciation for my life.)</i>						
3. Kendime güvenim arttı. <i>(I have a greater feeling of self-reliance.)</i>						
4. Manevi konuları daha iyi anladım. <i>(I have a better understanding of spiritual matters.)</i>						
5. Zor zamanlarda başkalarına güvенеbileceğimi anladım. <i>(I more clearly see that I can count on people in times of trouble.)</i>						
6. Kendimi diğer insanlara daha yakın hissetmeye başladım. <i>(I have a greater sense of closeness with others.)</i>						
7. Duygularımı ifade etme isteğim arttı. <i>(I am more willing to express my emotions.)</i>						
8. Zorluklarla başa çıkabileceğimi anladım. <i>(I know better that I can handle difficulties.)</i>						

	0	1	2	3	4	5
9. Olayları olduğu gibi kabullenmeyi öğrendim. (<i>I am better able to accept the way things work out.</i>)						
10. Yaşadığım her günün değerini anladım. (<i>I can better appreciate each day.</i>)						
11. Başkalarına karşı şefkat hislerim arttı. (<i>I have more compassion for others.</i>)						
12. İnsanlarla ilişkilerimde daha fazla gayret göstermeye başladım. (<i>I put more effort into my relationships.</i>)						
13. Dini inancım daha güçlendi. (<i>I have a stronger religious faith.</i>)						
14. Düşündüğümde daha güçlü olduğumu anladım. (<i>I discovered that I'm stronger than I thought I was.</i>)						
15. İnsanların ne kadar iyi olduğu konusunda çok şey öğrendim. (<i>I learned a great deal about how wonderful people are.</i>)						
16. Başkalarına ihtiyacım olabileceğini kabul etmeyi öğrendim. (<i>I better accept needing others.</i>)						

APPENDIX L

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS)

Aşağıda 12 cümle ve her birinde de cevaplarınızı işaretlemeniz için 1'den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar çok doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini daire içine alarak işaretleyiniz. Bu şekilde 12 cümlenin her birinde bir işaret koyarak cevaplarınızı veriniz.

(Below, there are 12 sentences and also numbers from 1 to 7 below each one for you to select. Please mark by only selecting one number to point out to what extent the sentence is true or false for yourself. By this way, please answer each one of the 12 sentences.)

1. **İhtiyacım olduğunda yanımda olan özel bir insan (sevgili, partner, eş vb.) var.**
(There is a special person -boy/girlfriend, partner, etc.- who is around when I am in need.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

2. **Sevinç ve kederimi paylaşabileceğim özel bir insan (sevgili, partner, eş vb.) var.**
(There is a special person -boy/girlfriend, partner, etc.- with whom I can share my joys and sorrows.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

3. **Ailem bana gerçekten yardımcı olmaya çalışır.**
(My family really tries to help me.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

4. **İhtiyacım olan duygusal yardımı ve desteği ailemden alırım.**
(I get the emotional help and support I need from my family.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

5. **Beni gerçekten rahatlatan bir özel bir insan (sevgili, partner, eş vb.) var.**
(I have a special person -boy/girlfriend, partner, etc.- who is a real source of comfort to me.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

6. **Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar.**
(My friends really try to help me.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

7. **İşler kötü gittiğinde arkadaşlarıma güvenebilirim.**
(I can count on my friends when things go wrong.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

8. **Sorunlarımı ailemle konuşabilirim.**
(I can talk about my problems with my family.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

9. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var.

(I have friends with whom I can share my joys and sorrows.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

10. Yaşamımda duygularıma önem veren özel bir insan (sevgili, partner, eş vb.) var.

(There is a special person -boy/girlfriend, partner, etc.- in my life who cares about my feelings.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

11. Kararlarımı vermede ailem bana yardımcı olmaya isteklidir.

(My family is willing to help me make decisions.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
--------------------------------------	---	---	---	---	---	---	---	------------------------------------

12. Sorunlarımı arkadaşlarımla konuşabilirim.

(I can talk about my problems with my friends.)

Kesinlikle hayır (Definitely not)	1	2	3	4	5	6	7	Kesinlikle evet (Certainly yes)
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APPENDIX M

WRITING INSTRUCTIONS FOR THE FIRST DAY

EXPERIMENTAL GROUP

Even being in different parts of our lives, all of us experience the feeling that we have missed an opportunity or lost something from time to time. Although those times can be difficult and can increase negative emotions we feel, everyone experiences them at some points in life.

We expect you to write as honestly and sincerely as possible what you feel and think about the loss that you have chosen as “the loss of your life” while you were filling the previous scales.

While you are writing, please focus on the effects on you and also the meaning of the loss for you.

The questions you might ask yourself while you are writing:

- *What have I felt at the time of the loss?*
- *What changes has it made in my life?*
- *How has it affected my relationships with my close family and friends?*
- *What signs of it exist in my daily life today?*
- *How am I feeling and thinking about while I am writing about the loss?*
- *In what way my view and my feelings about myself has been affected by the loss?*

These questions aim **only** to give you some ideas about your experience. You may answer these questions but also may mention the thoughts that they make you think about. While you are writing, please try to let your emotions to come out. Please write everything in your mind by not judging or censoring. After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

If you feel overwhelmed by the negative emotions while you are writing about the loss you have chosen, please chose another topic and continue writing about the new topic.

Please continue writing for 15 minutes.

CONTROL GROUP

We expect you to write, without including your emotions, about what you are planning to do today. You can think like where you are going after you left here, what you are going to do. For example, “I going to go to my class, and I will be there for 2 hours.” However, we want you not to use sentences contain emotions like “I love/hate that class”.

After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

Please continue writing for 15 minutes

APPENDIX N

THE POST-SESSION EVALUATION QUESTIONNAIRE

Yazma deneyiminiz hakkında:

(Regarding your writing experience:)

1. Aşağıdaki duygu ve fiziksel semptomların hangilerini ne yoğunlukta hissediyorsunuz?

(To what extent do you feel the emotions and physical symptoms listed below?)

1	2	3	4	5	6	7	8	9	10
Hiç (None)				Biraz (Moderately)					Son Derece (Extremely)
___ Üzgün (Sad)				___ Baş ağrısı (Headache)					
___ Sinirli (Angry)				___ Mide bulantısı/ağrısı (Nausea/Stomachache)					
___ Yorgun (Tired)				___ Kalp çarpıntısı (Tachycardia)					
___ Suçlu (Guilty)				___ Ellerin terlemesi/soğuması (Sweated cold hands)					
___ Rahatlanmış (Relieved)				___ Nefes darlığı (Shortness of breath)					
___ Kaygılı (Anxious)				___ Titreme (Trembling)					
___ Mutlu (Happy)				___ Baş dönmesi (Dizziness)					

2. Bugün yazdıklarınız ne derece kişiseldi?

(How personal was your essay?)

1	2	3	4	5	6	7	8	9	10
Hiç (None)				Biraz (Moderately)					Son Derece (Extremely)

3. Bugün yazdıklarınız sizin için ne kadar önemli ve anlamlıydı?

(How important and meaningful was your essay for you?)

1	2	3	4	5	6	7	8	9	10
Hiç (None)				Biraz (Moderately)					Son Derece (Extremely)

4. Bugün yazdıklarınızda ne derece derin duygularınızı ifade ettiniz?

(To what extent have you shared your deepest emotions in your essay?)

1	2	3	4	5	6	7	8	9	10
Hiç (None)				Biraz (Moderately)					Son Derece (Extremely)

5. Bugün yazdıklarınızda ne derece başkalarıyla daha önce paylaşmadığınız duygu ve düşüncelerinizi yansıttınız?

(To what extent did you shared your thoughts which you have never shared with others?)

1	2	3	4	5	6	7	8	9	10
Hiç (None)				Biraz (Moderately)					Son Derece (Extremely)

6. Bugün yazdıklarınızı ne derece geçmişte bir başkasına söyleyebilmiş olmayı isterdiniz?

(To what extent you wished that you could have previously shared your essay's content with someone?)

1	2	3	4	5	6	7	8	9	10
Hiç (None)				Biraz (Moderately)					Son Derece (Extremely)

APPENDIX O

WRITING INSTRUCTIONS FOR THE SECOND DAY

EXPERIMENTAL GROUP

We want you to write about the loss you have written about yesterday again.

However, at this time, we want you to focus on how you have handled the loss, what has given you the strength to move on and made you feel better, and whether you have gained anything during that process, or not. Those personal gains might be like understanding both yourself and others, effecting your course of life in a positive way, protecting you from bad possibilities, and/or making you a happier and more mature person.

You may also write about your thoughts about what kind of event/situation/change would give you the opportunity to gain something. These examples aim only to give you some ideas about your experience. You may stick to these examples but also may mention the thoughts that they make you think about.

While you are writing, please try to let your emotions to come out. Please write everything in your mind by not judging or censoring. After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

Please continue writing for 15 minutes.

CONTROL GROUP

We expect you to write, without including your emotions, about the activities you have done on the last weekend. Where have you been, what have you done, how have you spent your time? For example, sentences like “I spent 5 hours in the library.” / “I went to see the X movie.” are convenient. However, we want you not to use sentences contain emotions like “I love going to movies”.

After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

Please continue writing for 15 minutes.

APPENDIX P

WRITING INSTRUCTIONS FOR THE THIRD DAY

EXPERIMENTAL GROUP

Today, we want you to write about the loss you have been writing for the last 2 days as if it has happened to another person. We want you to write about it as if it was another person's experience without including yourself.

For example, you are going to use sentences like "s/he felt" rather than "I felt".

The questions you might ask yourself while you are writing:

- *What was the loss?*
- *What has s/he felt at the time of the loss?*
- *What changes has it made in his/her life?*
- *How has it affected his/her relationships with his/her close family and friends?*
- *What signs of it exist in his/her daily life today?*
- *In what way his/her view and feelings about him-/herself has been affected by the loss?*

These questions aim **only** to give you some ideas about your experience. You may answer these questions but also may mention the thoughts that they make you think about. While you are writing, please try to let your emotions to come out. Please write everything in your mind by not judging or censoring. After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

Please continue writing for 15 minutes.

CONTROL GROUP

We expect you to write, without including your emotions, about the activities you are planning to do on the upcoming weekend. You can think as what you are going to do, and to where you will go. For example, sentences like "I will meet my friends and we will go to the cinema" are convenient. However, we want you not to use sentences contain emotions like "I love my friend".

After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

Please continue writing for 15 minutes.

APPENDIX Q

WRITING INSTRUCTIONS FOR THE FOURTH DAY

EXPERIMENTAL GROUP

On the fourth and the last day of the writing sessions, we want you to write about the loss you have been writing its different aspects for the last three days. However, we want you to write it as if you are telling someone who does not know your experience at all.

The questions you might ask yourself while you are writing:

- *What was the loss?*
- *What have I felt at the time of the loss?*
- *What changes has it made in my life?*
- *How has it affected my relationships with my close family and friends?*
- *What signs of it exist in my daily life today?*
- *How am I feeling and thinking about while I am writing about the loss?*
- *In what way my view and my feelings about myself has been affected by the loss?*

These questions aim **only** to give you some ideas about your experience. You may answer these questions but also may mention the thoughts that they make you think about. While you are writing, please try to let your emotions to come out. Please write everything in your mind by not judging or censoring. After you have started writing, please write continuously for **15 minutes** and do not worry about grammar. **Please continue writing for 15 minutes.**

CONTROL GROUP

We expect you to write, without including your emotions, about the activities you are planning to do on the upcoming weekdays. You can think as what you are going to do, and to where you will go. For example, sentences like “I have 2 exams next week” are convenient. However, we want you not to use sentences contain emotions like “I am(not) scared of the exams.”.

After you have started writing, please write continuously for **15 minutes** and do not worry about grammar.

Please continue writing for 15 minutes.

APPENDIX R

THE POST-EXPERIMENT EVALUATION QUESTIONNAIRE

Yazma Deneyiminin Tümü Hakkında:

(Regarding the writing experience as a whole:)

Aşağıdaki soruları dört günlük yazma deneyimini düşünerek doldurunuz.

(Please answer the questions below by thinking your 4-day writing experience.)

1. Genel olarak dört gün boyunca yazdıklarınız ne derece kişiseldi?

(In general, how much personal were your essays?)

1 2 3 4 5 6 7 8 9 10
Hiç Biraz Son Derece
(None) (Moderately) (Extremely)

2. Sizce, yazdığınız konu, tecrübe ettiğiniz dönemi düşündüğünüzde, ne derece ağırdı/zordu?

(In your opinion, how difficult/serious was the topic you wrote at the time it occurred?)

1 2 3 4 5 6 7 8 9 10
Hiç Biraz Son Derece
(None) (Moderately) (Extremely)

3. Sizce, yazdığınız konu, bugününüzü etkilemeye ne derece devam ediyor?

(In your opinion, to what extent the experience continues to affect your life today?)

1 2 3 4 5 6 7 8 9 10
Hiç Biraz Son Derece
(None) (Moderately) (Extremely)

4. Yazdıklarınızı bu deneye katılmadan önce ne derece başkalarıyla paylaşmıştınız?

(To what extent you have previously shared your essays' contents with other people?)

1 2 3 4 5 6 7 8 9 10
Hiç Biraz Son Derece
(None) (Moderately) (Extremely)

5. Yazdıklarınız ne derece en derin duygularınızı yansıtmış oldu?

(To what extent you have shared your deepest emotions in your essays?)

1 2 3 4 5 6 7 8 9 10
Hiç Biraz Son Derece
(None) (Moderately) (Extremely)

6. Yazdıklarınızı geçmişte başkalarıyla paylaşmamak için kendinizi ne derece tutmuşunuz?

(To what extent you have previously inhibited yourself not to share what you have written with other people?)

1 2 3 4 5 6 7 8 9 10
Hiç Biraz Son Derece
(None) (Moderately) (Extremely)

7. Genel olarak, dört gün boyunca yazma deneyimi sizin için ne derece zordu?
(How difficult was the 4-day writing experience for you?)
- | | | | | | | | | | |
|--------|---|---|---|--------------|---|---|---|---|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Hiç | | | | Biraz | | | | | Son Derece |
| (None) | | | | (Moderately) | | | | | (Extremely) |
8. Son dört günde ne derece üzgün hissettiniz?
(To what extent you felt sad for the last four days?)
- | | | | | | | | | | |
|--------|---|---|---|--------------|---|---|---|---|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Hiç | | | | Biraz | | | | | Son Derece |
| (None) | | | | (Moderately) | | | | | (Extremely) |
9. Son dört günde ne derece mutlu hissettiniz?
(To what extent you felt happy for the last four days?)
- | | | | | | | | | | |
|--------|---|---|---|--------------|---|---|---|---|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Hiç | | | | Biraz | | | | | Son Derece |
| (None) | | | | (Moderately) | | | | | (Extremely) |
10. Yazdığınız olayı tecrübe ettiğinizde kaç yaşınızdaydınız? _____
(How old were you when you have experienced the loss? _____)
11. Yazdığınız olayı tecrübe ettiğiniz yaş aralığı nedir?
(Which age period were you at when you have experienced the loss?)
- | | | | | | |
|-----|------|-------|-------|-----------------------|-----------|
| 0-6 | 7-11 | 12-15 | 16-19 | 20 ve sonrası | Şimdi |
| | | | | (Age of 20 and later) | Currently |
12. Sizin açınızdan dört gün boyunca olumsuz olayla ilgili yazmanın en iyi tarafları nelerdi?
(What parts of the writing about a negative event for four days do you consider as the best ones?)
13. Sizin açınızdan dört gün boyunca olumsuz olayla ilgili yazmanın en zorlayıcı tarafları nelerdi?
(What parts of the writing about a negative event for four days do you consider as the most difficult ones?)
14. Sizce dört gün boyunca olumsuz olayla ilgili yazmak size yardımcı oldu mu? Eğer evet ise, neden? Eğer hayır ise, neden?
(In your opinion, has the writing about a negative event for four days helped you? If your answer is yes, why? If your answer is no, why?)

APPENDIX S

ORIGINAL TURKISH TEXT OF TRANSLATED QUOTES

1: ... olaylar beni artık çok fazla germeye başladı. Sadece düzenli bir şekilde bütün işlerimi aksatmadan yapmam gerekiyor. Yazmak iyi geldiği için belki kendime günlük almayı düşünüyorum. Rahatlamak için aynı bu deneyde yaptığım gibi planladıklarımı ve de yaptıklarımı yazabilirim. Bu deneyin çok yoğun bir haftamın önündeki haftaya denk gelmesi belki de iyi bir tesadüftü...

2: Diğer iki günden farklı olarak hem daha rahatlamış hem de mutlu hissediyorum. belki bir başkasının gözünden görünce aslında ne kadar üzücü de olsa olayın asıl suçlusu kendim değilmişim gibi hissettim.

3: Bu olayları başka birinin yaşadığını düşünmek beni üzdü nedense. kendi yaşadığım zorluklar beni üzmez iken aynı olayı başkasının yaşamış olması beni üzdü. yaşadığım olayın etkilerinin olumlu yanları fazla olmasına rağmen bir başkasının yaşaması, bu olayları, bana farklı duygular yaşattı.

4: Hayatımda büyük bir acı yaşadktan sonra neler değiştiğini ve neler yaptığımı hatırlamak bana ne kadar değiştiğimi fark etti. bu olay benim şu anki hayatımda hala etkisini gösteriyor ve kişilik özelliklerim, davranışlarım bu olay ile değişti. bunu şu an yazdıklarım ile fark etmiş oldum. o zamanları tekrar hatırlamak beni üzse bile [onu] hatırlamak bana her zaman farklı bir duygu uyandırıyor. o günler hem çok eski hem çok yeni geliyor ama toparlanama dönemi hayatımın en zor dönemiydi ve şimdi o günler, neler yaptığımı hatırlayınca kendimi güçlü hissettim.