CONSIDERATIONS OF DEATH ANXIETY, MEANING IN LIFE, SELF-

ESTEEM, SELF-COMPASSION AND LONELINESS VIS-À-VIS

TERROR MANAGEMENT THEORY

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BOĞAZİÇİ UNIVERSITY

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DECLARATION OF ORIGINALITY

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ABSTRACT

Considerations of Death Anxiety, Meaning in Life, Self-Esteem, Self-Compassion and Loneliness vis-a-vis Terror Management Theory

Studies on Terror Management Theory have mostly focused on assessing certain parameters that presumably contribute to buffer the anxiety that is formed when mortality becomes cognitively salient. Considering death anxiety as an enduring construct that impacts human psyche throughout life, such parameters may carry on the role of "anxiety-buffer" regardless of salience of death-thoughts. To support this prediction, quantitative relationships between death anxiety and five variables that are associated with defenses against death awareness (self-esteem, self-compassion, presence of meaning in life, search for meaning in life and loneliness) were examined. Data were collected from 315 Turkish participants, consisting dominantly of university students, via online self-report scales. It was predicted that self-esteem, self-compassion and presence of meaning in life would have a significant negative association with death anxiety, whereas loneliness and search for meaning in life would have a positive one. Correlation analyses supported these predictions for all variables except loneliness. Regression analyses indicated that self-compassion had significantly higher predictive power on death anxiety compared to other variables, whereas loneliness and self-esteem had negligible predictive power on death anxiety. Moderation analyses showed that loneliness moderated the relation between self-compassion and death-anxiety, as self-compassion lost its predictive power on death anxiety at very high levels of loneliness. Implications of the results are discussed in the light of Terror Management Theory.

ÖZET

Ölüm Kaygısının Benlik Saygısı, Öz-Duyarlılık, Yalnızlık ve Hayatın Anlamı ile Terör Yönetimi Üzerinden İlişkisi

Terör Yönetimi Kuramı üzerine yapılan çoğu çalışma, ölüm düşüncesi belirgin hale geldiğinde bunun yarattığı kaygıya karşı tampon olmaya ve kaygıyı hafifletmeye yarayan belli parametreler üzerinde durmuştur. Ölüm kaygısının belirgin bir hatırlatıcı olmadan da sürekli ve rahatsız edici bir yapı olduğu düşünülürse, söz konusu parametrelerin "tampon" rollerini herhangi bir ölüm hatırlatıcı manipülasyon olmadan da sürdürmeleri iddia edilebilir. Bu doğrultuda, Ölüm Kaygısı ile ölüm bilincine karşı kullanılan defanslarla bağlantılı olan beş değişken (Benlik Saygısı, Öz-Duyarlılık, Hayatta Bulunan Anlam, Hayatta Aranan Anlam ve Yalnızlık) arasındaki sayısal ilişki incelenmiştir. Veriler bir çevrimiçi anket aracı üzerinden özbildirim ölçekleri kullanılarak 315 üniversite öğrencisinden tek seferde toplanmıştır. Benlik Saygısının, Öz-Duyarlılığın ve Hayatta Bulunan Anlamın ölüm kaygısıyla anlamlı ölçüde negatif yönde, Hayatta Aranan Anlam ve Yalnızlığın ise pozitif yönde ilişkili olacağı öngörülmüştür. Korelasyon analizleri bu öngörüleri Yalnızlık dışındaki parametreler için desteklemiştir. Regresyon analizleri Öz-Duyarlılığın Ölüm Kaygısı üzerindeki yordama gücünün diğer dört değişkene göre çok daha yüksek olduğunu, Yalnızlık ve Benlik Saygısının ise ihmal edilebilir yordama gücüne sahip olduğunu göstermiştir. Moderasyon analizine göre Yalnızlık, Öz-Duyarlılık ve Ölüm Kaygısı arasındaki ilişkiyi modere etmekte; çok yüksek yalnızlık seviyelerinde Öz-Duyarlılık Ölüm Kaygısı üzerindeki yordama gücünü kaybetmektedir. Çalışmanın sonuçları, Terör Yönetimi Kuramı ışığında tartışılmıştır.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

1.1 General Introduction

American comedian Louis C.K., who famously has a sharp existential approach as his comedy style, states the following quote at the very beginning of one of his comedy acts: "Out of all the people that ever were, almost all of them are dead. There are way more dead people. And you're all gonna die. Then you're gonna be dead for way longer that you were alive. Like that's mostly what you're ever gonna be. You're just dead people that didn't die yet". Experienced comedian, who tries in his acts taking the audience to places they are afraid to go, intentionally starts with reminding them a harsh reality of life. He predicts that the audience will not dwell on what they just heard. He is confident that it will not ruin people's moods when they are reminded that they are "just dead people that didn't die yet". On the course of the act we see that the comedian is right. Being reminded about their mortality does not seem to affect the audience much, as they are enjoying the act. It even seems that the more Louis C.K. pushes the envelope about seldom mentioned realities of life, the more they laugh. Starting his act by talking about mortality that frankly, Louis C.K. prepares the audience to watch him diving into all other sorts of tricky waters.

Death is universal and inevitable. It is a law of nature. It is the perpetual cessation of all the life functions of an organism (Bernat, Culver & Gert, 2013). More simply put, it is the end of life of an organism; it is the state of being no longer alive. Besides the beliefs about the existence of an immaterial and immortal essence of life or an afterlife, death is the end of existence of an organism forever (Neimeyer, 2015).

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Human beings, especially after early childhood, live with the awareness that they are going to die someday. They get to know that death is irreversible, inevitable and universal (Becker, 1973). Although human beings, in contrast to other animals, are more able to comprehend mortality and death, Yalom (1989) suggested "we know about it, but we don't know". He argued that we are cognitively able to comprehend that we are going to die, but we also have defense mechanisms to keep this harsh reality out of our consciousness. We try to deny and suppress death or try to turn it into a positive thing by believing in religious disciplines that offer us a happy, rewarding afterlife and/or a reuniting with God (Kübler-Ross, 1969). In modern civilizations and cultures, we systematically try to avoid reminders of death, such as by building cemeteries on outer parts of cities, avoiding talking about it personally and publicly, treating death as a medical issue as if there is a possibility to cure it (Mellor, 1992). Becker argued that having the information that we are going to die does not stop us from having the unconscious dream of immortality. He pointed out that the massive conflict, which is inherent in human existence, is always present; the will to maintain one's own existence and at the same time being cognitively aware of the inevitability of death.

1.2 Death anxiety

1.2.1 Different approaches to the concept: Freud and Becker

To understand the psychological impact that death has on individuals, Freudian theory, which is widely acknowledged as a good attempt to explain how "human mind works", might be a good place to start. Freudian theory basically suggests that personality of a person is shaped by experiences in early life (Freud & Bonaparte, 1954). Obviously, a person's own death cannot be a past experience, which makes it

a challenge for Freudian theory to explain how awareness of death is responsible for shaping human behavior. Correspondingly Freud (1915) argued "it is indeed impossible to imagine our own death; and whenever we attempt to do so, we can perceive that we are in fact still present as spectators". He suggested that "at bottom no one believes in his own death" and we all believe unconsciously that we are immortal. Hence, Freud claimed that expressed anxieties about death are disguised forms of other "actual" unconscious fears such as fear of annihilation, separation, castration or being punished, which stem from unresolved early-life conflicts (Furer & Walker, 2008). However, he still acknowledged that fear of death was something that "dominated us oftener than we know" (Razinsky, 2013). Especially because of witnessing World War I, Freud talked about a death instinct; Thanatos, which he considered to be inherent in human beings alongside libido and to influence human behavior in forms of aggression, violence and hostility (Kahn & Liefooghe, 2014). Considering that Freudian theory is based on the relief of tension that is created by drives and instincts, his famous quote "the goal of all life is death" may be interpreted as that death could be the ultimate tension of relief (Kahn & Liefooghe, 2014).

Becker, in his Pulitzer Prize awarded book *The Denial of Death* (1973), in contrast to the assumption that people can never really comprehend their mortality, argued that awareness of one's own death and the defense mechanisms to deal with it were the most essential factors that shaped human behavior. Becker suggested that the anxiety that death awareness causes is so intense that it can be described as terror, which human mind has no option but to look for ways both consciously and unconsciously to cope with. Similarly, Yalom (1980) suggested that death is the first and most essential source of anxiety and hence psychopathology. He argued that

human beings are *"forever shadowed by the knowledge that we will grow, blossom, and inevitably, diminish and die"*. According to Becker and Yalom (2008) defenses that are erected for this purpose are mostly denial and/or repression based. They argued that however it is still hard to completely deny or repress a cognitively well-known information, so such defenses at least try to transform the anxiety arising from death awareness to something less "toxic". The fear of being nothing, because of something we have never experienced and know very less about, "shakes our very foundation", which makes us try to direct the anxiety towards other and "simpler" aspects of life. (Lehto & Stein, 2009). Becker pointed out that this mechanism works from early ages and continue throughout the life, which makes death the primordial source of all psychological defenses.

While Becker (1973) and Yalom's (1980) approach to death anxiety is apparently different from Freudian approach, two approaches have something in common: one's own death is extremely hard to fully acknowledge, comprehend and cope with. Both pointed out that mental disturbance caused by the presence of the concept of death and how mentally dominant this disturbance could get.

1.2.2 Definition of death anxiety

Death anxiety can be simply defined as the fear of and anxiety related to the anticipation, and awareness, of dying, death, and nonexistence (Nyatanga & Vocht, 2006). Although the definition includes both concepts of fear and anxiety, it is important to remind the difference between those two concepts. Fear is a response to an actual threat to one's wellbeing. It is often protective. It makes a person immediately to feel and act accordingly in the presence of such threat. Stress hormones are released, the body gets tense, and the heart beats faster. After the threat

is gone away, the body returns in short time to its normal cognitive, emotional and physiological functioning (Perusini & Fanselow, 2015). On the other hand, anxiety is the response one shows to a danger that is anticipated. It is the reaction to the possibility of a threat, not necessarily to the threat itself. It can be present when the threat is not there, which means it can be continuous regardless of the presence of an actual threat (Perusini & Fanselow, 2015). Hence, death anxiety, in contrast to occasional fear of dying, may influence cognitive and emotional functioning of an individual on a broader level (Nyatanga & Vocht, 2006). Being an enigma that is very strongly anticipated makes death a good candidate for being a diffuse and intense type of anxiety for every human being (Sterling & Van Horn, 1989). At this point it is important to mention that death anxiety stands for the diffuse and enduring effect that death awareness creates on both unconscious and conscious levels; rather than describing a psychopathological state of constant and obsessive death thoughts on conscious level (Menzies & Dar-Nimrod, 2017).

1.3 Components of death anxiety

1.3.1 Uncertainty

Death anxiety comprises various mental responses, such as fear of the pain from dying, feeling of vulnerability and despair towards the unavoidability of death, fear of being forever isolated and anxiety about being not existent (Lonetto & Templer, 1986). Uncertainty that concept of death contains is an essential component of death anxiety, as human brain has evolved in a way that it constantly tries to learn, comprehend, make meaning of and anticipate (Pollak, 1980). Both the process of dying and its aftermath are vague, making it a massive challenge to wrap our heads around it. In his poem "Aubade" Philip Larkin (1973) described death anxiety with

following words, which challenge Freud's idea that one cannot "really" believe in its own death:

And specious stuff that says no rational being

Can fear a thing it will not feel, not seeing

That this is what we fear—no sight, no sound,

No touch or taste or smell, nothing to think with,

Nothing to love or link with,

The anaesthetic from which none come round.

1.3.2 Somatic aspects

It is also vague how much pain dying will include, which is another aspect of death anxiety (Pollak, 1980). Process of dying is often anticipated to include pain, which is obviously a feeling that human beings are programmed to avoid (Neimeyer & Van Brunt, 1995; Lehto & Stein, 2009). A fundamental human instinct is preserving one's own body, which will lose its functioning in the case of death. Negative changes in one's body, such as losing a part of the body, are already proven to cause feelings such as sadness, inadequacy and worthlessness (Sterling & Van Horn, 1989). Considering that death causes dissipation of one's body, the somatic aspect of death becomes a strong source of anxiety (Neimeyer & Van Brunt, 1995)

1.3.3 Isolation and loss of control

Kübler-Ross (1969) underlined that one's perception of death may also be associated with the state of eternal singularity, loneliness and being isolated from other people and life. Death of a person means the end of all personal relationships, which might

cause anxiety for being forever lonely, as well as feelings of worry about people who are left behind (Kübler-Ross, 1969).

Another aspect of being mortal that reportedly causes anxiety is the feeling of loss of control (Lehto & Stein, 2009). Lehto and Stein stated that human beings have evolved to seek a certain sense of being in control of what is happening around them to maintain safety and survive in various environmental conditions, which is highly challenged by the idea of mortality. Having no sense of mind, consciousness, willpower nor self-control after death is one of many aspects of death that creates strong anxiety and insecurity by the individual (Sterling & Van Horn, 1989). Considering that obsessive-compulsive responses are strongly related to the feeling of being "not in control" or "out of control", it makes sense that many people give obsessive-compulsive-like responses when fear of death is high (Strachan et al., 2007). Studies by Strachan et al. (2007) and Menzies and Dar-Nimrod (2017) indicated that individuals, who were already prone to exhibit certain compulsive behaviors, such as compulsive hand-washing, showed such behavior in higher amount when thoughts of death were made salient to them.

1.4 Personal parameters related to death anxiety

1.4.1 Age

There have been various researches in the literature to detect the parameters that death anxiety is related with. Age is a parameter that death anxiety is considered to be somehow correlated (Pollak, 1980; Wagner & Lorion, 1984). There is an inaccurate common opinion that old people have higher death anxiety than young people, whereas many studies in the literature showed that this is not the case (Neimeyer, 2015). While some studies failed to find a meaningful relationship

between death anxiety and age, majority of studies showed that old adults have lower levels of death anxiety compared to young and middle-aged adults (Iverach, Menzies & Menzies, 2014). Russac, Gatliff, Rence and Spottswood (2007) argued that a curvilinear relationship was present, by claiming young adults had the highest levels of death anxiety, while the levels can again reach a peak during middle age before going down in late adulthood.

Although there is no theoretical consensus about why older people tend to have lower death anxiety than younger people, Rasmussen and Brems (1996) argued that people develop better ways to cope with death anxiety as they get older because of having a better psychosocial maturity, which is basically the lifelong process of a person's emotional and social development, compared to young people. Another reason might be physical, cognitive, social and psychological difficulties which increase with age, making old adults being "less enthusiastic" about going on with life and living (Russac et al, 2007). Study by Cicirelli (2002) indicated that old adults expressed death anxiety in terms of failing to fulfill responsibilities especially for people left behind and being forever alone after death. Same study showed that for young people death is more associated to the fear of losing health, an irreversible damage to the body and inability to fulfill wishes about the future.

Several studies in the literature showed that late adolescence is the stage when thoughts about death make their way to the mental agenda and start becoming psychologically disturbing (Noppe & Noppe, 2004). Study by Sterling and Van Horn (1989) showed that adolescents who went through a tough identity search had higher levels of death anxiety compared to other age groups. Studies that examined the relationship between death anxiety and age so far focused on mostly old adults, probably because late adulthood is the closest stage of life to death (Burke, Martens

& Faucher, 2010). However, by early adulthood individuals might be prone to high levels of death anxiety (Neimeyer, 2015).

1.4.2 Gender

Studies in the literature that examine the effects of gender differences on levels of death anxiety have indicated different outcomes. While some studies failed to find a significant main effect of gender on death anxiety levels, several studies indicated that women generally have higher levels of death anxiety (Neimeyer, 2015). One common explanation for the latter notion is that women, compared to men, tend to express their anxiety more freely in questionnaire forms, which are often used to measure death anxiety (Assari & Lankarani, 2016), However, Dattel and Neimeyer (2007) argued that this was not the case as they showed that the difference between women and men by death anxiety levels was still there when they statistically controlled the factors of self-disclosure and social desirability. Another study by Pierce Jr, Cohen, Chambers and Meade (2007) tried to explain the gender-based difference by death anxiety levels with type of religiosity. It was indicated that women had higher extrinsic religiosity compared to men, which partially accounted for the difference in death anxiety levels. Study by Depaola, Griffin Young and Neimeyer (2003) pointed out that despite the lack of a general main effect of gender on death anxiety levels, older women had higher death anxiety then older men. In parallel to the findings by Pierce Jr. et al. and Depaola et al., Neimeyer (2015) argued that possible explanations for gender-based differences on death anxiety levels may be related to moderation effects of parameters such as personality traits, locus of control and subjective experience of death anxiety.

1.4.3 Loss and encounters with death

Losing a loved one may also contribute to anxiety about death and dying (Yalom, 1989). Losing a close family member in childhood can have an enduring impact on anxiety about future losses (Nehrke, Bellucci & Gabriel, 1978). Such enduring impact may also cause PTSD-like responses when the topic of death is salient, such as replaying loss-related memories, worrying excessively about health of self and others and feeling powerless and out-of-control against death (Simpson, 1997). Not just in childhood but by any age; losing a loved one, witnessing a death-related event or going through any type of death-related trauma shatter the foundation of denial-based mechanisms against death (Pyszczysnski & Kesebir, 2014). Experiencing a personal loss forces the individual to face with the reality of death from a close distance and reflect on own mortality (Yalom, 1989). In his poem "No Man is an Island", poet John Donne (1974) famously said: "Any man's death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bells tolls; it tolls for thee."

1.4.4 Interpersonal relationships and loneliness

Problems in the domain of social and interpersonal relationships, may lead to increases in death anxiety (Tate, 1982; Yalom, 2008). Such problems may cause distress and interfere with the mental and physical health of the individual, which are related to the level of death anxiety that the individual experiences (Iverach et al., 2014). Lack of interpersonal relations, which may cause both physical and emotional loneliness, are likely to elevate levels of death anxiety (Plusnin, Pepping & Kashima, 2018). There is consensus in the literature that loneliness, which is defined as "the fact of being without companions" and "sadness because of having no company" (Loneliness, 2018), is a "major public health issue" and it dramatically increases

mortality risk (Holt-Lunstad, Smith, Baker, Harris & Stephenson, 2015). Furthermore, loneliness and social isolation are strongly associated with lower life satisfaction, which is commonly considered as a predictor of high death anxiety (Yalom, 1989; Cohen et al. 2005). Moreover, fear of isolation after death is a component of death anxiety, which makes the potential association between interpersonal relationships and death anxiety even more likely (Pinson, 2010).

Despite the theoretical association between lack of interpersonal relationships, loneliness and death anxiety, there are mixed findings regarding the quantitative relation between those parameters (Plusnin et al., 2018). Study by Davis, Miller, Johnson, McAuley and Dinges (1992) indicated positive correlation between loneliness and death anxiety among women, but not among men. Baum (1982), working elderly adults failed to support the hypothesis that death anxiety was related to feelings of loneliness in later life. Baum argued that the reason might be related to the difference between emotional and social loneliness especially by older adults. Parallel to this argument, Carstensen (1992) came up with socioemotional selectivity theory, which asserted that elderly adults tend to limit social interactions in a way to merely involve ones that are "meaningful". In other words, they can experience less emotional loneliness although they might seem to be socially lonely, which may create ambiguity by measuring loneliness levels of especially older individuals. Carstensen claimed that this ambiguity would be negligible by younger adults. Tomer and Eliason (1996) came up with a model to explain the nature of the relationship between loneliness and death anxiety. They suggested that beliefs about oneself influenced attitudes towards death. They argued that loneliness, because of its associations with various aspects of self-concept, could be considered as a moderator between certain self-constructs and death anxiety.

1.4.5 Physical and mental health

There is a consensus in the literature that poor health is correlated with higher death anxiety, such as hospitalized individuals express higher death anxiety then individuals with good health (Sterling & Van Horn, 1989). For such individuals, especially ones in serious condition, death becomes mentally more salient, which is considered to elevate death anxiety levels (Cicirelli, 2002). Alongside having a terminal condition, experiencing disease-related states such as low functionality, bodily defects and fatigue may be also related to elevated death anxiety levels (Iverach et al., 2014). However, study by Guy and Stern (2006) showed that although hospitalized individuals tend to have high death anxiety levels, patients who are in the last stage of their terminal disease may express lower death anxiety than patients with non-terminal diseases. Guy and Stern argued that such individuals might have lost the lust and enthusiasm for the life, as they might be somehow consentient about dying.

As previously mentioned, some researchers argued that fear of death "lies at the core of the human capacity for anxiety" (Strachan et al., 2007). Understandably, death anxiety is found to be related to a broad range of mental distress and mental disorders (Iverach et al., 2014). Specifically, number of studies showed that death anxiety levels were positively associated with depression, specific phobias, separation anxiety, obsessive-compulsive disorder, social anxiety, panic disorder, eating disorders and post-traumatic stress disorder (Iverach et al., 2014). There is also a consensus in the literature that people with high levels of death anxiety are often statistically and clinically more distressed and less satisfied with life than people with lower levels of death anxiety (White & Handal, 1991). These findings

may be interpreted as death anxiety being an essential aspect of various psychological disorders (Neimeyer, 2015).

It is also possible that death anxiety can be experienced and expressed in pathological levels, indicating a specific psychopathology that emerges from an excessive focus on terrorizing aspects of death (Diamond, 1996). Diamond argued that excessive preoccupation with death and dying is likely to interfere with daily functioning and mental health of the individual. Yalom (1989) claimed that psychotherapy is found to be effective when excessive fear of death is confronted and discussed, in order to convert it into "normal existential death anxiety".

1.4.6 Personality traits and early attachment

Researches have shown that death anxiety and personality traits of individuals are often associated (Templer, 1970, Neimeyer & Van Brunt, 1995). A common finding from various studies is that neuroticism, which is among the five traits that five-factor model of personality offers, is a solid predictor of death anxiety (Jastrzebski & Slaski, 2011). Jastrzebski and Slaski argued that individuals with high neuroticism tend to strongly experience feelings of worry, fear, guilt, anxiety and loneliness, which apparently make it harder for them to cope with death; a construct that is closely related to such feelings. Study by Jastrzebski and Slaski also indicated a negative correlation between conscientiousness and death anxiety; especially the fear of what happens after death. It was suggested that individuals with better organization, motivation and success in goal-orientated activities are more content and satisfied with their lifetime achievements, which reduces their death anxiety.

Locus of control is another aspect of personality that is found to be related to death anxiety (Neimeyer & Van Brunt, 1995). Individuals with external locus of

control, who believe what happens in their lives are mostly controlled by external forces, express higher levels of death anxiety compared to ones with internal locus of control, who believe they have a particular control over the events and their outcomes in their lives (Sadowski, Davis & Loftus-Vergari, 1980; Jastrzebski & Slaski, 2011). An explanation is that people with an external locus of control tend to consider dying and death as more of something that they have minimum control over and that will inevitably happen to them; which makes them experience and/or express more anxiety about death and dying (Sadowski et al., 1980). Furthermore, internal locus of control is positively associated with higher levels of self-esteem and self-efficacy, which are assumed to be negatively correlated with death anxiety (Judge, Erez, Bono & Thoresen, 2002). However, Pollak (1980) argued that inevitability of death strongly challenges engagement in an internal locus of control, which might explain the presence of studies that have failed to find an association between locus of control and death anxiety.

Considering the association between awareness of death and certain personality traits, one may argue that early childhood development, a vital stage of personality development, can lead to individual differences in terms of death anxiety (Scheffold et al., 2018). Bowlby (1982) underlined that attachment style and corresponding responses to physical and psychological threats become a template for how the adult person responds to such threats. Correspondingly, Scheffold et al. (2018) indicated that individuals with secure attachment styles, who are able to form healthy relationships in terms of both intimacy and autonomy, tend to express lower death anxiety than others Moreover, there is a consensus in the literature on how healthy interpersonal relations are related with lower death anxiety (Plusnin et al., 2018). On the other hand, insecurely attached people often avoid intimacy that leads

to feelings of loneliness, isolation, vulnerability and lower self-esteem; which all are positively associated with higher death anxiety (Iverach et al., 2014).

1.5 Defense mechanisms against death anxiety

1.5.1 Subjective feeling of "being special"

Human beings desperately seek various ways, both on conscious and unconscious levels, to cope with the striking reality that they are going to die (Becker, 1973). Yalom (1989) pointed out two common beliefs that his patients, who had cancer, held to cope with their fear of death. His observed that his patients had the unconscious belief of "it won't happen to me" in the face of death, as if the laws of nature, such as the inevitability of death, were not valid for that person. Yalom claimed that this is kind of a narcissistic defense mechanism of self-worth and omnipotence that gives the person the feeling of safety. Similarly, Kohut (1966) argued that the omnipotence and egocentrism of a child wear down to a "realistic" level throughout the developmental phases with the help of reality testing ability, but it is hard to claim that one's feeling of "being special" completely oozes away. In parallel to Yalom's observation about feelings of being special as a coping method, various studies showed that construct of self-esteem, which is considered to reflect senses of self-worth and self-assurance, might be a protective factor for the individual against the anxiety that death evokes (Greenberg et al., 1992).

1.5.2 Belief in "ultimate rescuers"

Yalom (1989) stated a second branch to grab in the face of death anxiety: an ultimate rescuer. In contrast to the feelings of being special, he claimed that this is a defense that relies on a more external locus of control, caused by feelings of being under protection by an external force no matter what negative thing happens in life. Yalom

indicated that in adult life believing in a religion and in a God are very commonly seen types of believing in an "ultimate rescuer". In parallel to this observation, it is reported that a big portion of world population has faith in religion (Diener, Tay & Myers, 2011). Yalom also noted that "ultimate rescuer" is not necessarily God for all individuals. Yalom suggested that people also tend to idealize an individual with high status and power, such as a family member, a political figure or an opinion leader, and treat it as an "ultimate rescuer" in order to feel a sense of safety and relief from threats to own wellbeing, such as death. In parallel to this, one might expect that such coping method would be needed even more when the end of the life seems near for a person. Various studies showed that people tend to get more religious as they age and approach the final phases of their lives (Benton, Christopher & Walter, 2007). In similar fashion, study by Hussain, Weisaeth and Heir (2011) showed that people became more religious when their living district was hit by a natural disaster such as an earthquake.

In contrast to aforementioned findings about religion and death anxiety, Jong et al.'s (2018) meta-analysis showed that at least half of the studies in this domain indicated no association between religiosity and death anxiety. More specifically, Jong et al.'s meta-analysis showed that individuals who were intrinsically religious had lower death anxiety than average population, whereas extrinsically religious people had higher levels of death anxiety. Another finding of Jong et al.'s meta-analysis were atheists being one of the groups with lowest death anxiety levels; which challenged the presumed anxiety-decreasing role of religion.

1.5.3 Avoidance and medicalization of the concept of death

As mentioned before, while a total denial of death is hard to manage, neglecting it is another common way to deal with it (Lehto & Stein, 2009). Lehto and Stein argued that we often avoid speaking about death and treat it as a taboo subject, because talking about death reminds our own mortality, as well as things we have not accomplished in life. Mellor (1992) argued that especially by modern Western civilization death has become a topic that causes discomfort and embarrassment; hence it is generally an avoided topic. Moreover, Lee (2008) claimed that due to the increase by human lifespan in recent era, we are able to push death out of our current agenda for some extra years and treat death as if it is a medical matter of subject. Medical doctor Seamus O'Mahony (2017) argued that in recent decade big and unrealistic expectations from medical staff members have raised especially about the end-of-life situations. O'Mahony pointed out that "while the issue of death is existential and spiritual, it has been treated as if medicine can solve it". Lee and O'Mahony suggested that death is tried to be regarded as if it is a matter under human beings' control, as our unconscious fantasies of immortality and human omnipotence are trying to be actualized via medicine.

The mechanism of avoidance of death-thoughts works also in the domain of personal health. A survey among American citizens showed that one-third of participants were avoiding a medical examination although it is highly recommended (Taber, Levya & Persoskie, 2015). Even people having specific medical symptoms are subjects of such avoidance, as 17 percent of patients diagnosed with rectal tumors were reported to wait between one to five years until they apply for a medical help (Ristvedt & Trinkhaus, 2005). In other words, avoiding the topic of death for now is

chosen over the possibility to detect life threatening situation (Taber, Levya &

Persoskie, 2015).

1.5.4 Modern civilization as a coping method against death

Becker, in *The Denial of Death* (1973) considered emergence of modern human

civilization as a defense mechanism against death anxiety. Similar to Yalom's (1980)

approach that death anxiety has to be directed into "less toxic" targets, Becker

claimed that fear and anxiety that death causes may attach "to an almost infinite

variety of situations and symbols". He underlined that a civilization includes many

symbolic aspects such as culture, religion, nationality, politics and institutions, which

are in a way "immortal". They are not physical beings and they continue to exist,

although people, who feel part of them and internalize them, might die. Becker

emphasized that internalizations of symbols create a "symbolic self", which is

"more" than being a bulk of flesh and bones. Furthermore, Becker described the

current human civilization as a collectively signed contract about acting as if being a

"normal member of the civilization" means "being successfully protecting ourselves"

from the terror that awareness of death causes. Similarly, Illich (1995) claimed that

religious and cultural rituals that follow the death of an individual are for the ones

who are left behind, because they create the illusion that our system of living is still

intact, and we can still feel "safe and in control" despite the loss of the individual.

1.6 Terror Management Theory (TMT)

1.6.1 Description of TMT

Alongside various theories and hypotheses about how individuals defend against

death anxiety, Terror Management Theory have become one of the most influential

theories in this domain in the last couple of decades (Burke et al., 2010). Terror Management Theory (TMT) is a, *"social psychological theory that draws from existential, psychodynamic, and evolutionary perspectives to understand the often-potent influence that deeply rooted concerns about mortality can have on our sense of self and social behavior"* (Ardnt & Vess, 2008, p. 909). The theory, introduced by Solomon, Greenberg and Pyszczynski (1986) underlined the terrorizing emotional impact of fear of death, stemming from both the evolutionary human motivation to stay alive and the cognitive awareness of the inevitable death of the individual. Being theoretically based on Becker's (1973) approach that considers modern civilization as a defense mechanism against death anxiety, TMT basically claims that cultural worldviews, which are socially shared symbolic constructs that the individual invests into, as well as self-esteem, help to manage the anxiety that death evokes in the individual's psyche (Greenberg, Pyszczynski& Solomon, 1986). Personal internalizations of symbols create a "symbolic self", which serves as a protective factor via creating the illusion that we are more than "being a bulk of flesh and bones" (Pyszczynski, Greenberg &Solomon, 1999; Routledge, 2012).

1.6.2 Proximal defenses

A dual process model has been pointed out as a modification to the TMT soon after the initial introduction of the theory, as defenses against conscious and unconscious death-related thoughts are distinguished respectively as proximal and distal (Pyszczynski et al.,1999). Proximal defenses are activated when such thoughts are on a conscious level (Pyszczynski, Greenberg & Solomon, 2000). Such defenses help to suppressor push away death-related thoughts and emotions immediately after threats

of mortality and death become a matter of current cognitive focus (Pyszczynski, Solomon & Greenberg, 1999).

Via proximal defenses individuals aim to move away death-related thoughts and also affects arising from these thoughts from current cognitive agenda (Greenberg, Arndt, Simon, Pyszczynski & Solomon, 2000). In order to do so, Greenberg et al. pointed out that individual may consciously suppress and choose not to think about death-related things, deny that death is not a serious or current threat, and try to maintain bodily health of oneself or find distractions in order not to think about death. Heavy smokers may convince themselves that their health is not at stake by pointing out another heavy smoker who made it to old age. A person who just witnessed a horrible car accident may turn up the sound of the radio and begin thinking about plans for evening. One may rationalize the death of others by concluding that they died because of their unhealthy lifestyles. In short, via proximal defenses individual uses logical thinking and available information to convince onseself belief that death is not an urgent problem and "diffuse the threat at the level of abstraction" (Greenberg et al., 2000).

1.6.3 Distal defenses

When awareness of mortality and death is successfully pushed away from conscious level to unconsciousness by proximal defenses, distal defenses step in (Pyszczynski et al, 1999). Pyszczynski et al. claimed that distal defenses aim to weaken or prevent the accessibility of unconscious thoughts and emotions that are associated with death. In contrast to proximal defenses, Pyszczynski et al. underlined that distal defenses do not necessarily utilize logical and rational cognitions. The inevitability and unpredictability of one's death cannot be rationally denied in the long term by

using any logical cognition nor available (Yalom, 1980; Pyszczynski et al., 2000).

Although death may be suppressed or repressed, it is still somehow accessible and continues being a constant psychic burden; which creates the necessity of distal defenses (Pyszczynski et al., 1999).

TMT claims that via distal defenses individual engages in symbolic and "eternal death-transcending" elements in order to cope with the anxiety created by the implicit, constant and overwhelming knowledge of mortality (Pyszczynski et al., 1999). Pyszczynski et al. stated that human beings cognitively, emotionally and behaviorally invest in symbolic and collective system of values, namely cultural worldviews, such as ideology, culture, society rules, religion, afterlife beliefs, nationality, etc. Being engaged in cultural worldviews and living according to the standards dictated by those worldviews provide individuals sense of coherence, permanence, order and especially meaningfulness (Pyszczynski et al., 2000). Pyszczynski et al. underlined that cultural worldviews are often shared with big social groups, creating the feeling of social-validation and a sense of security against threats. Feeling a member or a part of "bigger", eternal and symbolic elements provide the sense of "symbolic immortality" for the individual, in contrast to being an organic stack of cells vulnerable against death (Becker, 1973; Solomon, Greenberg & Pyszczynski, 1991).

In contrast to proximal defenses, distal defenses emerge in the case when the salience of death-related stimuli and thoughts are cognitively weakened, but they continue to unconsciously disturb individual's psyche (Pyszczynski, Solomon & Greenberg, 2000). They are described as more of a "long-term project" that shapes individual's behavior in various domains to protect against the diffuse anxiety that death creates. If certain defenses manage to relieve the death anxiety in the long run,

investment in those defenses and related worldviews are likely to be maintained (Pyszczynski et al, 2000).

1.6.4 Role of self-esteem by TMT

Self-esteem is a concept that TMT claimed to be essentially related to cultural worldviews (Solomon et al., 1991). Solomon et al. suggested that self-esteem stems from the subjective feeling about how well the person lives up to the standards that cultural worldviews offer. Being properly aligned with cultural worldviews gives the individual feelings of social validation and self-coherence (Solomon et al., 1991). Solomon et al. and Greenberg et al. (1992) argued that the feelings of validation and "doing the right thing" subjectively put the individual in a relatively less vulnerable position in the face of death. Being a "valuable contributor" to cultural worldviews creates the sense of self-esteem and relieves death anxiety to some degree (Pyszczynski, Greenberg, Solomon, Arndt & Schimel, 2004). Pyszczynski et al. (2004) claimed that self-esteem is developed as a result of the presence of death anxiety and it is also a protector against it. Hence, according to TMT, individuals with high self-esteem are expected to cope with their fears better than ones with low self-esteem, implying an anxiety-buffer function of self-esteem (Greenberg et al., 1992).

1.7 Theoretical and empirical structure of TMT studies

1.7.1 Mortality salience (MS) hypothesis

There has been a good number of studies in the literature that experimentally tried to find support for Terror Management Theory, specifically for the dual process model it offers (Hayes, Schimel, Arndt& Faucher, 2010). One of the first attempts to find

empirical support for TMT was the study by Rosenblatt, Greenberg, Pyszczynski and Lyon (1989). Rosenblatt et al. aimed to manipulate levels of death anxiety by asking participants to write about their own death and then monitor the differences between experimental group and control group in terms of attitude towards people who violate or uphold cultural values. Rosenblatt et al. found support for their hypothesis, as experimental group reacted more negatively to those who violated cultural values and positively to ones that upheld them.

Burke et al.'s (2010) meta-analysis showed that majority of TMT studies, similar to the aforementioned study by Rosenblatt et al. (1989), experimentally manipulated death-related thoughts and emotions of participants by bringing the concepts of death and mortality to cognitive attention. The general hypothesis of the majority of TMT studies, namely the mortality salience (MS) hypothesis, suggests that when thoughts about death are somehow activated via methods of priming or exposure, individuals engage more in cultural worldview-related defenses, whose primary function is to relieve death anxiety (Greenberg et al., 1990). In the face of MS, people tend to hold onto certain cultural worldview defenses, which can be observed in terms of heightened in-group favoritism, alignment with already embraced symbolic constructs; as well as hostility, prejudice and intolerance towards discrepancy, rule violators and criticisms of their cultural values (Greenberg et al., 1990).

It is vital to note that a huge portion of MS studies used some delay before measuring cultural worldview-related dependent variables (Burke et al., 2010). Greenberg et al. (1990) argued that to be able to examine specifically distal defenses, some delay and/or distraction tasks are needed, as accessibility of death-thoughts only then begins again to increase due to the retreating of proximal defenses.

Correspondingly, many studies failed to find evidence for distal defenses when they did not used appropriate delay time after MS manipulation (Greenberg, Arndt, Simon, Pyszczynski, & Solomon, 2000).

Burke et al. (2010) indicated that most commonly used MS manipulation in the literature was asking participants to write an essay about their emotions and thoughts on their own death, to make the awareness of their mortality cognitively and emotionally "salient". The control group is often asked to write about a non-death related but aversive topic, such as physical pain or social rejection. Burke et al. mentioned that other less used ways of MS manipulation are asking participants to fill out death-related questionnaires, showing death-related visual footage and exposing subliminal death-related stimulus.

Dependent variables that are used by empirical TMT studies are often attitude towards others that express criticism or support for the cultural worldview that the person embraces (Burke et al. (2010). Burke et al. indicated that most common method to measure such variables is to ask participants after the MS condition to read an essay that disagrees with, criticizes or threatens their worldview and then let participants express their attitudes towards the author of the essay. MS studies also use other dependent variables that are considered to be related with cultural worldview defenses, such as social commitment, attitudes toward politic leaders and rule violators, engagement in religion, ideology, country, etc. (Hayes et al., 2010).

1.7.2 Self-esteem and anxiety buffer hypothesis

Studies on Terror Management Theory have also focused on how self-esteem, whose main function is claimed to be a buffer against death anxiety, influences individual's response to death-related thoughts (Solomon et al., 1991). Solomon et al. argued that

level of one's self-esteem is likely to influence being less or more vulnerable against death anxiety, as well as showing less or more behavioral expression of death anxiety.

Consistently there is a good number of studies in the literature showing that self-esteem is negatively associated with death anxiety (Burke et al., 2010). More specifically, there is empirical support that people express less cultural worldview-related defensive attitudes towards reminders of death when they have high dispositional self-esteem or when their self-esteem is occasionally strengthened (Hayes et al., 2010). Study by Harmon-Jones et al. (1997) included two experiments: using an experimental manipulation of self-esteem in first one and measuring dispositional self-esteem without any manipulation in second one. To assess distal defenses, participants were instructed to evaluate other individuals who either supported or disclaimed their cultural worldviews. Findings indicated that participants with negatively manipulated self-esteem and participants with lower dispositional self-esteem evaluated individuals who disclaimed their worldview more negatively than participants with higher dispositional and participants with positively manipulated self-esteem. In other words, Harmon-Jones et al.'s study suggested that high self-esteem served to relieve the death anxiety in a way that the dependency of the individual on cultural worldviews decreased in the face of MS.

The empirical review by Pyszczynski et al. (2004) underlined the moderation effect of self-esteem between MS and certain death-related attitudes. It was indicated that participants with high levels of self-esteem are less physiologically aroused against the risk of enduring physical pain; they report less anxiety when they are exposed to footage of a fatal car accident; they engage in less proximal defenses, such as distorting information about own mortality, when reminded of the

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unpredictability of one's own death. Pyszczynski et al. argued that such findings supported the hypothesis that self-esteem works as a protective factor against death anxiety, especially in the face of exposure to death-reminders.

It is important to note that several studies have failed to find a significant relationship between self-esteem and death anxiety (Feifel & Nagy, 1981; Leary, 2002). Meta-analysis by Burke et al. (2010) mentioned that several studies indicated an unexpected relation between mortality awareness and self-esteem, showing that participants with higher self-esteem responded more defensive in terms of attitudes about cultural worldview than participants with lower reported self-esteem. Burke et al. argued that the reason could be that participants with higher self-esteem could possibly feel "jolted out of their usual sense of equanimity" because of MS. In other words, individuals with higher self-esteem might be more defensively reactive to MS compared to individuals with lower self-esteem, who do not necessarily largely invest in their cultural worldviews.

One explanation regarding the above-mentioned unclarity in the TMT literature about the anxiety-buffer role of self-esteem is based on the manner of measurement. Burke et al. (2010) claimed self-esteem's presumed role of anxiety-buffer was better observed when it was assessed in "more subtle" ways, such as using an experimental manipulation of it or obtaining an assessment of implicit self-esteem, rather than self-reported self-esteem scales. Similarly, Schmeichel et al. (2009) argued that commonly used self-esteem scales, such as Rosenberg Self-Esteem Scale (Rosenberg, 1965) are mostly self-report based and they tend to provide an assessment of explicit self-esteem. A good number of researchers argued that high explicit self-esteem, being possibly related with narcissistic defenses and insecurity, may lead to elevated defensive reactions to MS (Landau & Greenberg,

2006; Schmeichel et al., 2009; Burke et al., 2010). In other words, they suggested that added explicit self-esteem often did not provide an anxiety buffer function and high explicit self-esteem was often associated with more vulnerability against death anxiety, whereas implicit self-esteem could carry out such anxiety buffer function.

In parallel to the uncertainty regarding the relation between self-esteem and mortality awareness, Leary (2004) mentioned several arguments on why self-esteem should not be considered as a fundamental defensive formation against death anxiety. He argued that construct of self-esteem evolved before the emergence of modern human culture. This view contradicts with TMT's assumption that self-esteem has evolved constitutively as a sense of alignment with cultural worldviews. Leary added that social support reduces anxiety also in animals who are not cognitively capable of comprehending mortality, which implied that it is the social component of self-esteem, rather than its presumed association to cultural worldviews, that relieves anxiety.

Another lack of consensus in the literature is present about how levels of self-esteem, which is generally used as a moderator variable by TMT studies, would fluctuate as a dependent variable after MS manipulation (Burke et al., 2010). While theoretically one might expect that self-esteem should be striven for or enhanced when death anxiety is higher, there is no sufficient empirical support for that (Pyszczynski & Kesebir, 2011). Pyszczynski and Kesebir argued that self-esteem may be even shattered when it fails to fulfill its function of keeping death-related thoughts at bay. They added that this phenomenon could be seen especially by people who seriously suffered from the death of another person, witnessed an intense scene about death or experienced a near-death experience or serious illness. By such cases death-related thoughts, together with feelings of depression and anxiety, may

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be enduring and overwhelming, as self-esteem fails to function as a buffer against death anxiety (Simpson, 1997; Pyszczynski & Kesebir, 2011).

1.7.3 Self-compassion: A potential anxiety-buffer

Self-compassion, as a scientific concept, was introduced by Kristin Neff (2003b), who defined it as approaching oneself with compassion, understanding and kindness in the face of unpleasant experiences, rather than being harshly self-judgmental, reaching to conclusions of self-inadequacy nor disconnecting oneself from the experience. Neff (2003a) pointed out three main aspects that self-compassion included; self-kindness – maintaining a sense of kindness to oneself by occasions of failure and suffering; common humanity – considering negative personal experiences as "part of the larger human experience" instead of feeling isolated in the face of such negative experience, and mindfulness – carrying a "balanced awareness" on the negative emotions while not overidentifying with them. Neff and Lamb claimed that self-compassion is expected to help a person by dealing with outcomes of negative experiences and coping with the suffering in a better way, rather than denying the outcome, ruminating about it or making negative personal inferences, such as self-inadequacy.

Recent research suggests that self-compassion is positively correlated to emotional well-being, life satisfaction, social connectedness and emotional equanimity in the face of daily challenges (MacBeth & Gumley, 2012). Study by Neff, Rude and Kirkpatrick (2007) showed that self-compassion was positively linked with positive affect, optimism, wisdom, curiosity and personal initiative. Another aspect that self-compassion is found to be positively associated with is healthy behavior in romantic relationships, as study by Neff and Beretvas (2013)

indicated that people with higher self-compassion were more caring and supportive as opposed to being controlling or aggressive towards their partners. Neff and Beretvas suggested that higher self-compassion decreased the urge of defensively protecting certain self-constructs and manipulating the behaviors of others; which promoted a more secure and caring relationship pattern.

Neff and Lamb (2009) argued that self-compassion could be an alternative to the concept of self-esteem in certain ways. There is growing evidence in the literature that self-esteem, especially when it is measured as a self-reported explicit attitude, might be linked with insecure self-image, ego defensiveness, less prosocial behavior and other narcissistic tendencies (Crocker & Park, 2004; Schmeichel et al., 2009; Kesebir 2014).A correlational study by Neff and Vonk (2009) indicated that self-compassion, compared to self-esteem, was more positively correlated with a more stable sense of self-worth and more negatively correlated with self-criticism, self-rumination, public self-consciousness, social comparison, need for cognitive close, narcissism and anger. Study also showed that self-compassion and self-esteem, being moderately correlated, had similar power at predicting positive affect, such as happiness and optimism. Studies by Leary, Tate, Adams, Allen, and Hancock (2007), revealed that in contrast to self-esteem, self-compassion was more linked with high emotional resilience and less negatively reactive attitude in the face of negative daily experiences, as well as taking responsibility for one's role in a negative experience.

Taking aforementioned differences and similarities between self-compassion and self-esteem into account, it is reasonable to expect that self-compassion might play an anxiety-buffer role against reminders of death. Neff and Lamb (2009) argued that self-compassion, similar to what TMT suggests for the concept of self-esteem, offered a sense of meaning and security for the individual, which emerges from

"recognizing and feeling tenderness for the shared human experience". Furthermore, several studies indicated that higher self-compassion was linked with certain variables which have been considered to be linked with lower death anxiety, such as higher attachment security (Pepping, Davis, O'Donovan & Pal, 2015), higher emotional resilience (Neff and McGehee, 2010), healthier close relationships (Neff & Beretvas, 2013), lower neuroticism (Neff, Rude & Kirkpatrick, 2007) and lower levels of psychopathology (Macbeth & Gumley, 2012). Although these aspects make self-compassion a good candidate for being a buffer against death anxiety, there are very limited number of studies within TMT literature that examined such role of self-compassion. Study by Park and Pyszczynski (2016), focusing on the impact of MS specifically on participants who practiced meditation and ones who do not practice meditation, measured the self-compassion levels of participants as a dependent variable. Results showed that participants who practiced meditation showed less suppression, less worldview defense and higher self-compassion in the face of MS. Park and Pyszczynski argued that meditation moderated the effects of MS on parameters such as worldview defense, death thought accessibility and self-compassion. Kisa (2015) and Ashish (2016) examined the potential anxiety buffering role of self-compassion in the face of MS, via measuring self-compassion as independent variable and death-thought accessibility as dependent variable. Both studies failed to find empirical support such role of self-compassion.

1.7.4 Measurement of death anxiety by TMT studies

A typical TMT study is methodologically based on MS manipulation, self-esteem and measurement of cultural worldview-related defenses, whereas direct assessment of death-anxiety in the face of MS or without MS is rarely utilized (Burke et al.,

2010). Although death anxiety is an essential concept in the theoretical development of TMT, it is seldom used as a dependent variable by TMT studies (Hayes et al. 2010). Pioneers of TMT, Pyszczysnki, Greenberg and Solomon (1999) suggested that death anxiety is expressed through specific fears or phobias, is repressed, or converted to various forms and "rarely experienced directly" because of its intense negative emotional impact. Furthermore, proximal and distal defenses assumedly "prevent death-related cognition from leading to death-anxiety", which makes it harder to find a quantitative association between death anxiety and death-related cognitions arising from MS (Abeyta, Juhl & Routledge, 2014). Therefore, Pyszczynski et al. argued that TMT studies should focus more on measuring certain attitudinal parameters which death anxiety of the individual influences, specifically on proximal and distal defenses and the anxiety-buffering function of self-esteem.

Death anxiety was measured as dependent variable by a low number of TMT studies which sought anxiety-buffering function of certain parameters in the face of MS. Study by Routledge and Juhl (2010) showed that MS led to higher death anxiety by individuals who expressed less presence of meaning in life, indicating an anxiety-buffer function of presence of meaning in life in the face of death-related thoughts. Abeyta et al. (2014) used a MS manipulation and measured the levels of death anxiety of participants either just after the manipulation or after some delay. Results indicated that MS led to elevated levels of death anxiety only after some delay and just for participants with low levels of self-esteem. Abeyta et al. argued that these results supported the common assumption that self-esteem serves an anxiety-buffer function, however they contradict with the notion of TMT, which suggests that death anxiety is not a convenient variable to measure by TMT studies.

1.7.5 Death-thought accessibility

In recent years research on TMT started to focus more on how and to what extent death-related thoughts become accessible for at a given time; namely death-thought accessibility (Hayes et al. 2010). Empirical review by Hayes et al. stated that carious studies on death-thought accessibility, which is often measured via word-fragment completion tasks, have shown that accessibility of death-related thoughts are low immediately after MS, but they begin to become more accessible after a while. This is due to the eventual reduction of proximal defenses, which leads to higher death-thought accessibility (Pyszczysnki, Greenberg & Solomon, 1999). Correspondingly, study by Greenberg, Pyszczysnki, Solomon, Simon and Breus (1994) showed that followed by a short delay after the MS manipulation participants completed more word fragments as death-related words than the control group, which pointed out higher death-thought accessibility. Greenberg et al. argued this was due to the fact that participants were still actively suppressing of the death-related content just after MS, but not after some delay. This is consistent with the psychodynamic approach which claims that repressed or suppressed thoughts often find a way to crack to the surface and influence one's behaviors and emotions (Epstein, 1994). In other words, despite the proximal and distal defenses against death reminders, accessibility of death-related thoughts and the potential emotional impact of them may be still present in individual's psyche.

1.7.6 Aspects of meaning in life

According to TMT, people turn to meaning-providing structures to cope with the knowledge of inevitable mortality (Pyszczysnki, Greenberg & Solomon, 1999). Pyszczysnki et al. argued that if a person is well aligned with cultural worldviews,

he/she will express more content and stability with the subjective presence of meaning found in life and less death anxiety. Similarly, Routledge et al. (2010) stated that perception of life as meaningful is an "indicator of a well-established symbolic defense system". Considering that all cultural worldviews aim to provide a socially shared and personally internalized sense of meaning in life (Routledge et al., 2010), aspects of meaning in life could be related to death-related defense mechanisms. It would be fair to expect that presence of perceived meaning in life could act as an anxiety buffer, and in the face of MS individuals could be clinging more to a perceived meaning in life (Simon, Arndt, Greenberg, Pyszczynski & Solomon, 1998).

Empirical review by Hayes et al. (2010) indicated that studies in this domain have generally managed to provide empirical support for perceived personal meaning in life helping to keep death anxiety at bay in the face of MS. Such studies have often assessed the perceived meaning in life or the lack of subjectively present meaning in life, via scales such as Kunzendorf No Meaning Scale (Kunzendorf & McGuire, 1994) or Meaning in Life Questionnaire (Steger, Frazier, Oishi & Kaler, 2006). Meaning in Life Questionnaire by Steger et al. consisted of two subscales; presence of meaning and search for meaning in life. Steger et al. argued that although two subscales might be negatively correlated, search for meaning, which assesses to what extent the individual seeks for a meaning in life, is not an antipole of presence of meaning in life. Search for meaning in life is considered to be psychologically distinct from the presence of meaning in life and it does not represent a sense of meaninglessness (Steger et al., 2006). Steger et al. underlined that it is possible to not have a high perceived meaning in life and also not search for a meaning in life, or vice versa.

The association between aspects of meaning in life and parameters such as death anxiety has been the focus of correlational studies as well as studies using MS manipulation. A correlational study by Lyke (2013), working with young adults, indicated that search for meaning in life was positively correlated with death anxiety, as participants with the lowest levels of searching for meaning had lower death anxiety than other participants. A significant relation between presence of meaning in life and death anxiety was not found. Lyke argued that search for meaning, rather than presence of meaning, was more related to an anticipation and "orientation toward to future", which made it more relevant to the anticipation of dying. Similarly, the cross-sectional study by Latha, Sahana, Mariella, Subbannaya and Asha (2013) found a positive correlation between search for meaning and death anxiety by various age groups. Yuksel, Gunes and Akdag (2017), working with middle-aged failed to find a significant correlation between death anxiety and both search for and presence of meaning in life.

Aspects of meaning in life have been subject of several TMT studies, however most of these studies focused on the presence of meaning in life, rather than search for meaning. Study by Routledge and Juhl (2010) used presence of meaning in life as moderator variable and measured death anxiety to examine the effects of MS. It was found that MS manipulation increased death anxiety only by participants with lower dispositional levels of perceived meaning in life, whereas there was no significant effect of MS in terms of death anxiety by participants with higher levels of perceived meaning in life. Routledge and Juhl claimed that presence meaning in life played an anxiety-buffer role when death-thoughts were more accessible.

Study by Simon et al. (1998) with mildly depressed and nondepressed individuals showed that mildly depressed participants who were given opportunity to

defend their worldviews after MS reported higher presence meaning in life, while this effect was not found by nondepressed participants and all participants who were not given an opportunity to defend their worldviews. Simon et al. suggested that mildly depressed participants had greater need of engaging into cultural worldview defenses in the face of MS, which took place in the form of finding more meaning in life. Another MS study by Routledge, Arndt, Sedikides and Wildschut (2008) indicated that after MS manipulation participants who viewed their pasts more positively and who were more prone to nostalgia perceived life more meaningful than others. Routledge et al. argued that proneness to nostalgia served as a buffer to decrease the level of death-thought accessibility. Hence, participants with such proneness were more successful at maintaining a perceived presence of meaning in life and finding some relief from death anxiety when death-thoughts were more accessible.

Studies by Vess, Routledge, Landau and Arndt (2009) used personal need for structure measures as moderator variable to test how MS influences perception of life's meaning. It was expected that higher personal need of structure, being a sign of greater will to engage into clear and stable structures of belief systems, would result with bolstered perceived meaning in life. Findings confirmed this expectation, but on the other hand participants with lower need of personal structure had lower presence of meaning in life after MS manipulation. Vess et al. argued that MS caused such participants seek more novelty in terms of meaning in life, rather than cling into a present meaning.

Study by Routledge et al. (2010) examined the effects of MS on perceived meaning in life via two experiments. By the first one, self-esteem was used as a manipulated moderator variable, as the participants were assigned to either self-

esteem threat or bolster condition. It was found that participants in the self-esteem threat condition reported lower perceived meaning in life after MS manipulation, whereas for participants in the self-esteem bolster condition MS manipulation did not produce any significant effects on perceived meaning. In other words, participants in self-esteem threat condition had a harder time coping with death-relevant thoughts and they failed to cling to a meaning in life. Routledge et al.'s second experiment directly measured the death-thought accessibility of participants without any MS or self-esteem manipulation. Results showed that for participants with dispositionally lower levels of self-esteem, death-thought accessibility was negatively correlated with meaning in life. Furthermore, Routledge et al. underlined that such association between presence of meaning in life and death-thought accessibility was failed to be found amongst participants with higher self-esteem.

Aforementioned studies by Routledge et al. (2010), Vess et al. (2009) and Simon et al. (1998) showed that although perceived meaning in life generally works as a protective factor against death-related anxiety, moderators such as personal need of structure, mental wellbeing or self-esteem determine the nature of such association.

1.7.7 Role of close relationships by TMT studies

Considering the social component of investing in cultural worldviews, together with the impact of loneliness and social isolation on death anxiety, we can expect that close relationships may provide some sense of security and relief in the face of death and mortality (Plusnin et al, 2018). Yalom (2005) quoted a group therapy patient's statement about death anxiety: "Even though no personal mooring could be made, it was nonetheless enormously comfortable to see the lights of other ships sailing the

same water". While TMT initially focused mostly on cultural worldviews and self-esteem as ways of coping with death anxiety, some recent studies have examined how individuals cope with such anxiety by investing in close relationships (Cox & Arndt, 2012).

Study by Taubman-Ben-Ari, Findler and Mikulincer (2002) showed that MS led people to seek for and initiate more social interaction with others. Similarly, Florian, Mikulincer and Hirschberger (2002) indicated that in the face of MS individuals had elevated desire for intimacy and commitment towards their romantic partner. Same study also showed that when participants imagined a separation from their romantic partner, their levels of death-thought accessibility, together with the intensity of their worldview defenses, increased. In other words, presence of intimacy provided an anxiety-buffer function for the participants. Cox et al. (2008), investigating the association between MS and relationships among parent and their adult children, showed that parents provided "a terror management resource" for their adult children, as thoughts about one's parent decreased the death-thought accessibility in the face of MS. Furthermore, same study indicated that that after MS, individuals with insecure attachment tended to lean towards relationships with their parents, whereas individuals with secure attachment were more likely to recline upon relationships with romantic partners. Study by Mikulincer, Florian and Hirschberger, (2003) showed that striving for intimacy with a romantic partner, which normally decreased under conditions of receiving complaint or criticism from the romantic partner, did not decrease by same criticism or complaint conditions when MS manipulation was present.

To explain the relationship between close relationships and death-related defenses, Mikulincer et al. (2003) pointed out two reasons. They argued that threats

to well-being, such as mortality, unearths attachment-related psychic material, which develops very early in life to cope with any kind of threat to the well-being. They added that such attachment-related material may be evoked as a result of MS in terms of a striving for intimacy and social interaction. Furthermore, Mikulincer et al. added that close relationships provide meaning and self-worth for the person; which help the individual to cope with the awareness of mortality as TMT (Solomon et al., 1991) suggests. In addition to this explanation, Study by Cox and Arndt (2012) underlined the fundamental role of perceived regard by striving for close relationships to manage death anxiety, as romantic partners `served as a source of perceived regard" for each other after MS. These findings provide support for the assumption that awareness of death evokes striving and motivation for closeness, commitment and intimacy (Cox & Arndt, 2012). Correspondingly, lack of close relationships, loneliness and social isolation are likely to elevate death anxiety levels (Pinson, 2010; Plusnin et al., 2018).

Plusnin et al. (2018) came up with a moderation model to further explain the nature of the relationship between close relationships and effects of death awareness. They argued that parameters such as early attachment style and relationship-contingent self-esteem moderated such relationship. More specifically, it was stated that to avoid the heightened levels of death-thought accessibility, especially in the face of MS, individuals tend to strive for intimacy with partners who share their cultural worldviews and hold them in high regard. Plusnin et al. claimed that high levels of relationship-contingent self-esteem contribute to the maintenance of a present intimate relationship, although relationship-contingent self-esteem in the long term may lead to low levels of autonomy and excessive tendency for negative interpretations of relationship-related incidents. Plusnin et al. added that "deleterious

relationships", which include high levels of relationship-related conflict, jealousy and potential separation elevate the accessibility of death-thoughts.

1.7.8 Demographical parameters by TMT studies

Empirical studies on TMT have also examined how demographic parameters, such as age, gender and education level influence the effects of MS on distal defense mechanisms. Considering the findings in the literature about women tending to have higher death-anxiety than man, one could hypothesize that men and women would express different levels of proximal and distal defenses following MS manipulation (Davis, Bremer, Anderson, & Tramill, 1983; Russac et al., 2007). However, meta-analysis by Burke et al. (2010) showed that gender did not play a significant role in majority of studies. Burke et al. mentioned that there were studies by which gender played a role depending on the dependent variable, such as risky behavior, nationalistic tendencies, etc. Still, Burke et al. stated that these particular occasions were not enough to reach a general conclusion about how MS influenced men and women differently.

Meta-analysis by Burke et al. (2010) also examined the moderation effects of age on the association between MS and distal defense mechanisms. Similar to the findings about gender, age was not found as a significant moderator among TMT studies. Burke et al. noted that TMT studies mostly involved young adults and college students, as 164 TMT studies reported an average participant age of 22.2. Burke et al. also pointed out that effects of MS on distal defenses were stronger among college students than noncollege sample. They argued that this might be due to the fact that worldviews of college students are "not yet crystallized", which

makes them more prone to fluctuations of certain behavioral parameters following MS manipulations.

1.8 Current study

1.8.1 What literature lacks

It is fair to say that literature on TMT have managed to demonstrate empirical support for what TMT basically suggests (Burke et al., 2010; Hayes et al. 2010). However, a vast majority of empirical studies on TMT used MS manipulation to activate death-relevant thoughts, while there is a big lack of correlational studies that measure dispositional levels of variables that are central to TMT. While the majority of studies aimed to experimentally manipulate death anxiety via MS and measure the defenses that are erected against it, very few TMT studies directly measured the dispositional death anxiety levels of participants at a given point. Put differently, TMT studies have generally preferred to assess the behavioral and attitudinal response of individuals to salient death-reminders, rather than assessing the emotional impact of death cognition. TMT studies theoretically assume that thoughts about death may cause emotions of anxiety and loneliness, but empirically they have mostly focused on assessing defense mechanisms against these emotions in the case of a mortality salience manipulation, such as investing in cultural worldviews and close relationships, rather than directly assessing those emotions at a given time.

As mentioned before, the anxiety-buffer role of self-esteem has become a topic of discussion in the TMT literature. There are a number of studies that failed to find empirical support for the anxiety-buffer function of self-esteem, especially when explicit self-esteem was assessed via commonly used self-report scales, rather than assessment of implicit self-esteem (Leary, 2004; Schmeichel et al., 2009). There is a

lack of studies that examined other potential anxiety-buffer candidates, such as self-compassion, and compared them to self-esteem in terms of efficiency by playing such role.

Association between aspects of meaning in life and death-related defenses is another topic that TMT literature did not reach a strong consensus. While some TMT studies indicated overall bolstered levels of presence of meaning after MS manipulation, several studies indicated an opposite trend (Burke et al., 2010). Some studies argued that certain moderators determined the nature of association between meaning in life and death-related defenses (Routledge et al., 2010; Simon et al., 1998; Vess et al., 2009). Burke et al. (2010) stated that it is unclear whether people looked for meaning in life because thoughts about death disturb them or whether thoughts of death exhibit their impact by threatening individuals' perceived meaning in life. Moreover, search for meaning in life, in contrast to presence of meaning, has not been sufficiently examined as a variable in TMT studies (Lyke, 2013).

1.8.2 Goals and hypotheses

This study aimed to provide more insight on how and to what extent certain personal parameters, which were already proved by TMT literature to be related with death-related defenses or which might potentially be related to such defenses, were related with levels of death anxiety. More specifically, it aimed to examine the nature of the quantitative association between death anxiety and five other variables; presence of meaning in life, search for meaning in life, self-esteem, self-compassion and loneliness; at a certain time point without using any experimental manipulation.

Although the term "anxiety buffer" is frequently used in TMT literature, the term "death anxiety ", is often avoided and the concept is seldom used as a variable.

Meta-analysis by Burke et al. (2010) pointed out the consensus in the TMT literature that it was infeasible to assess death anxiety because of defenses that restrained it from being prominently experienced and expressed. One may argue that this partly contradicts with the approach of Becker (1973), who claimed that death anxiety is diffuse, enduring and disruptive. We assumed that if certain parameters functioned as anxiety-buffers by MS based studies (or if they imply the absence of such anxiety-buffers), these parameters should have a quantitative association with death anxiety regardless of any MS manipulation, as they will carry out their "anxiety-buffer" function. More specifically, if individuals seek for close relationships to relieve from impacts of death cognition, then loneliness, which implies the lack of such relationships, might have a positive association with death anxiety. Similarly, if self-esteem and presence of meaning function as anxiety-buffers in the face of MS; they might have a negative association with death anxiety. Self-compassion and search for meaning in life, which are conceptually related to "already established" anxiety buffers such as self-esteem and presence of meaning in life, may also have a direct quantitative association with death anxiety.

It was hypothesized that death anxiety would be negatively correlated to self-compassion, self-esteem and presence of meaning in life, whereas positively correlated with search for meaning in life and loneliness. It was predicted that a regression model using the variables of presence of meaning in life, search for meaning in life, self-esteem, self-compassion and loneliness, would significantly predict a certain amount of variance in levels of death anxiety. It was also predicted that coefficients of all these five variables in the regression model would turn out to be significant, because they were considered as conceptually distinct variables, which would serve as significant individual predictors in the regression model.

It was also hypothesized that self-compassion, as compared to self-esteem, would have a higher negative correlation with death anxiety and also a stronger predictive power on it, due to the aforementioned conceptual differences between self-compassion and self-esteem (Neff &Lamb, 2009).

A further hypothesis was that certain parameters would play a moderator role in the association between death anxiety and other parameters. However, because of the lack of previous studies that utilized the variables used in this study together in a correlational design, it was hard to predict the nature of such moderations. Given the findings of study by Routledge et al. (2010), it was hypothesized that self-esteem could moderate the association between presence of meaning in life and death anxiety. It was expected that for participants with high self-esteem, a significant association between death anxiety and presence of meaning could be absent. It was also aimed to detect the variable with strongest predictive power on death anxiety and examine possible moderators that moderated the relationship between this variable and death anxiety.

Lastly, three demographical variables that were assessed in this study; namely age, gender and presence of recent exposure to a death-related event. Considering that experiencing a recent death-related event may elevate the levels of death anxiety of an individual (Yalom, 1980), it was hypothesized that participants who reported to recently experience such event would have higher death anxiety than participants who did not report. Regarding age and gender, it was predicted that these two variables would not have a significant relation with death anxiety levels; due to Burke et al.'s (2010) meta-analysis that showed age and gender not being a significant parameter by most TMT studies.

CHAPTER 2

METHOD

2.1 Participants

Initially, 399 participants completed all the online scales that were delivered to them.

Participants were either students from psychology classes at Boğaziçi University in

Turkey, who received course credit in exchange of their participation, or respondents

that were reached via online forums of psychologists. Data collection was completed

within five days. Participant number was narrowed down to 315 due to elimination

of participants who completed the scales in excessively short (<5 minutes) or long

(>25 minutes) time. Remaining participants were consisted of 210 females and 105

males (Mean age M = 21.81, SD = 3.63). 280 participants were students of Boğaziçi

University, whereas remaining participants were respondents reached via online

forums. 84 participants reported to be recently exposed to a death-related event,

whereas 231 participants reported not to be recently exposed to such event.

2.2 Materials

2.2.1 Thorson- Powell Death Anxiety Scale

Thorson – Powell Death Anxiety Scale (in Turkish: "Thorson - Powell Ölüm Kaygısı

Ölçeği") (Yıldız & Karaca, 2001), which is the Turkish adaptation of the original

Thorson-Powell Death Anxiety Scale (Thorson & Powell, 1992) was utilized to

assess the death-anxiety levels of the participants. It has 25 items, which are rated on

a 1 to 5 Likert-type scale (See Appendices B and C). Turkish adaptation of Thorson-

Powell Death Anxiety Scale has a cronbach alpha value of .84 and test-retest

reliability of .90.

2.2.2 UCLA Loneliness Scale

UCLA Loneliness Scale (in Turkish: "UCLA Yalnızlık Ölçeği") (Demir, 1989), which is the Turkish adaptation of the original UCLA Loneliness Scale (Russell, Peplau & Ferguson, 1978), was used to measure loneliness levels of participants. It consists of 20 items, which are rated on a 1 to 4 Likert-type scale (See Appendices D and E). Turkish adaptation of UCLA Loneliness Scale has a test-retest reliability of .94 and internal validity of .96.

2.2.3 Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (in Turkish: "Rosenberg Benlik Saygısı Ölçeği") (Çuhadaroğlu, 1986), which is the Turkish adaptation of the first subscale of the original Rosenberg Self-Esteem Scale (Rosenberg, 1965), was utilized to assess the self-esteem levels of participants. It includes 10 items, which are rated on a 1 to 4 Likert-type scale (See Appendices F and G). Turkish adaptation of Rosenberg Self-Esteem Scale has a test-retest reliability of .75 and internal validity of .71.

2.2.4 Meaning in Life Questionnaire

Meaning in Life Questionnaire (in Turkish: "Yaşamın Anlamı Ölçeği") (Akın & Taş, 2015), which is the Turkish adaptation of the original Meaning in Life Questionnaire (Steger et al., 2006), was utilized. The scale, consisting of two subscales (presence of meaning in life and search for meaning in life), includes ten items, which are rated on a 1 to 7 Likert-type scale (See Appendices H and I). For the Turkish adaptation of the scale, presence of life subscale of has an internal reliability of .82, whereas the search for meaning subscale had an internal reliability of .87. Test-retest reliability is found

to be .89 and .92, for the subscales of present meaning and search for meaning in life respectively.

2.2.5 Self-Compassion Scale

Self- Compassion Scale (in Turkish: "Öz-Duyarlık Ölçeği") (Akin, Akin & Abaci, 2007), which is the Turkish adaptation of the original Self-Compassion Scale (Neff, 2003b), was used to assess self-compassion levels of the participants. It includes 26 items, which are rated on a 1 to 5 Likert-type scale (See Appendices J and K). The scale consists of six subscales; Mindfulness, Common Humanity, Self-Kindness, Self-Judgment, Isolation and Over-Identification. To assess a total self-compassion score, score of the negative subscale items, which are self-judgment, isolation, and over-identification, are reversed. Turkish adaptation of Self-Compassion Scale has a test-retest reliability of .69 and internal validity of .80.

2.3 Procedure:

After initially being presented with the basic aim of the study and a consent form, respondents who agreed to participate in the study were asked to fill out online measures of a total of 5 Likert-type scales, containing total of 91 questions, delivered to them on internet via the online survey tool SurveyMonkey. At the end of the survey, participants were asked to report their age, gender, occupation and whether they were exposed recently to a death-related event.

Respondents were requested to answer every item and complete all the scales in one single session. Using the randomization feature of SurveyMonkey, order of the scales was randomized for every participant. Average duration of completing the whole survey for all respondents was 12 minutes.

Descriptive statistics of scores obtained from six continuous scales and age, as well

as correlations between them, are shown below in Table 1.

Table 1. Descriptives, Internal Consistencies and Correlations between Six Main
Continuous Variables and Age (N = 315)

Variable	1	2	3	4	5	6	7
1. Death Anxiety	—	-.20**	-.19**	.28**	-.36**	.09	-.04
2. Self-Esteem	-.20**	—	.33**	-.27**	.64**	-.44**	.09
3. Presence of Meaning	-.19**	.33**	—	-.07**	.28**	-.28**	.12*
4. Search for Meaning	.28**	-.27**	-.07**	—	-.29**	.20**	-.13*
5. Self-Compassion	-.36**	.64**	.28**	-.29**	—	-.40**	.13*
6. Loneliness	.09	-.44**	-.28**	.20**	-.40**	—	-.05
7. Age	-.04	.09	.12*	-.13*	.13*	-.05	—
Mean	69.86	29.00	21.12	24.05	73.79	40.30	21.81
SD	17.34	5.97	6.55	6.62	16.44	11.27	3.63
Range[a]	25-125	10-40	5-35	5-25	26-130	20-80	18- 44
α	.82	.79	.86	.86	.82	.83	

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

[a] Values represent the standard ranges of the utilized scales

Relationship between death anxiety and two demographic variables, namely

gender and presence of recent exposure to a death-related event, were examined. A 2

(Gender: male vs female) x 2 (recent exposure to a death-related event: yes vs no)

between-subjects ANOVA were performed with death anxiety being the dependent

variable. Gender had a significant main effect on death anxiety, $F (1, 311) = 4.96$,

$p < .05$; with female participants having a higher mean of death anxiety score (M =

73.17, SD = 1.26) than male participants (M = 67.62, SD = 2.15). Presence of recent

exposure also had a significant main effect on death anxiety, $F (1, 311) = 6.31$, $p<.05$; with participants who reported to be recently exposed to a death-related event had higher average score of death anxiety ($M = 73.52$, $SD = 2,21$) than participants who did not report such exposure ($M = 67,26$, $SD = 1.15$). There was no significant interaction effect of presence of recent exposure to a death-related event and gender on the levels on death anxiety, $F (1, 311) = .002$, $p > .05$.

To examine to which extent previously mentioned five continuous variables, together with three demographical variables, predicted death anxiety levels, a two-step hierarchical multiple regression analyses were performed. Before conducting the regression model, the relevant assumptions of this statistical analysis were tested. In terms of collinearity statistics, for all variables Tolerance values (being above 0.1) and VIF values (being below 2.00) were within accepted limits, so the assumption of multicollinearity was been met (Coakes, 2005). Skewness and kurtosis for all variables being between -1 and +1 provided support for meeting the normality assumption. No extreme outliers were observed for all variables. Visual introspection of residual and scatter plots also showed no indication of violating the assumptions of normality, linearity and homoscedasticity (Pallant, 2001). Three demographical variables were entered in the first stage of the regression model, whereas five continuous variables were entered in the second stage. Results of the hierarchical regression model are indicated in Table 2.

Table 2. Summary of Hierarchical Regression Analysis with Death Anxiety as the Dependent Variable, Five Continuous Variables and Three Demographical Variables as Predictor

Variable	Step 1					Step 2				
	B	SE	β	t	p	B	SE	β	t	p
Age	-.35	.27	-.07	-1.30	.19	.01	.25	.01	.09	.93
Gender	-5.70	2.05	-.16	2.79	.01	-3.78	1.89	-.10	2.01	.05
Exposure to Death Related Event	-6.64	2.19	-.17	3.04	.00	7.25	1.99	-.19	3.65	.00
Self-Esteem						.33	.20	.11	1.66	.10
Presence of Meaning						-.34	.14	-.13	-2.39	.02
Search for Meaning						.51	.14	.20	3.68	.00
Self-Compassion						-.40	.07	-.38	-5.68	.00
Loneliness						-.12	.09	-.08	-1.32	.19
R^2			.06					.24		
F for change in R^2			6.62**					14.46**		

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

Note[1]: Variables of Gender and Exposure to Death-Related Event were entered into the regression as dummy coded (Gender: 0 = Female, 1 = Male; Recent Exposure to Death-Related Event: 0 = Yes, 1 = No).

Amount of variance that was explained with the regression model, being .24, converts to an effect size of $f^2 = .32$, which can be considered as moderate (Cohen, 1988).

Due to the results of regression analysis (See Table 2) that underlined the dominant predictive power of self-compassion on death anxiety, subscales of self-compassion (self-kindness, self-judgement, isolation, common humanity, mindfulness and over-identification) were separately entered into a regression model with death anxiety being the dependent variable. Subscales of self-compassion were

examined in terms of their distinctive predictive power on death anxiety. Results of

this regression analysis are indicated in Table 3.

Table 3. Summary of Regression Analysis with Death Anxiety as the Dependent
Variable and Subscales of Self-Compassion

Variable	B	SE	β	t	p
1. Common Humanity	-.73	.52	-.12	-1.40	.16
2. Self-Kindness	-.37	.59	-.08	-.62	.54
3. Over-identification	1.25	.54	.27	2.30	.02
4. Self-Judgement	.88	.51	.21	1.72	.09
5. Isolation	.96	.56	.19	1.72	.09
6. Mindfulness	-1.14	.62	-.20	-1.86	.07
R^2			.14		
F for change in R^2			4.47**		

*$p < .05$. **$p < .01$

To examine the hypothesis that self-esteem could play a moderator role

between aspects of meaning in life and death anxiety, moderation analyses were

conducted using Model 1 of the PROCESS macro developed for SPSS (Hayes,

2013). The data were mean centered prior to analyses. Moderation effect was tested

by generating 95% Confidence Intervals (CIs). Results failed to indicate a

moderation effect of self-esteem between death anxiety and presence of meaning in

life ($R^2_{Change} = .00$, $F(1, 311) = .39$, $p = .59$), as well as between death anxiety and

search for meaning in life ($R^2_{Change} = .00$, $F(1, 311) = .48$, $p = .57$).

Using Model 1 of the PROCESS Macro (Hayes, 2013), other variables used

in this study were examined for moderation effect between self-compassion, which

turned out to be the strongest predictor of death anxiety (See Table 2) and death

anxiety. The data were mean centered prior to analyses. Loneliness was found to be

only significant moderator between self-compassion and death anxiety, as the

interaction term between self-compassion and loneliness turned out to provide a

significant increase in the regression ($R^2_{Change} = .01$, $F(1, 311) = 4.31$, $p = .04$). To

probe this interaction and identify the range of values of loneliness at which the

association between self-compassion and death anxiety was significant or not,

Johnson-Neyman technique (Johnson & Neyman, 1936) was utilized via Process

MACRO. As demonstrated in Figure 1 below, it was indicated that self-compassion

was negatively associated with levels of death anxiety at low levels of loneliness

(b = -.51, se = .08, t= -6.24, 95% CI [-.67, -.35], p < .00) and average levels of

loneliness (b = -.40, se = .06, t= -6.66, 95% CI [-.52, -.28], p < .00), but self-

compassion and death anxiety did not have a significant association at very high

levels of loneliness (b = -.16, se = .13, t= -1.29, 95% CI [−.41, .09], p = .20).

Presence of meaning in life, search for meaning in life, presence of recent

exposure to death-related event and gender were also examined for a potential

moderation effect between self-compassion and death anxiety by using Model 1 of

the PROCESS Macro (Hayes, 2013). Neither presence of meaning in life (R^2_{Change} =

.001, $F(1, 311)$ = .49, p = .49); search for meaning in life (R^2_{Change} = .001, $F(1, 311)$

= .65, p = .42); presence of recent exposure to death-related event (R^2_{Change} =

.01, $F(1, 311)$ = 2.03, p = .15); nor gender (R^2_{Change} = .01, $F(1, 311)$ = 3.21, p = .07)

had a significant interaction effect in the moderation analyses that included self-

compassion as the focal predictor and death anxiety as the independent variable.

Hence, these parameters failed to be a moderator between self-compassion and
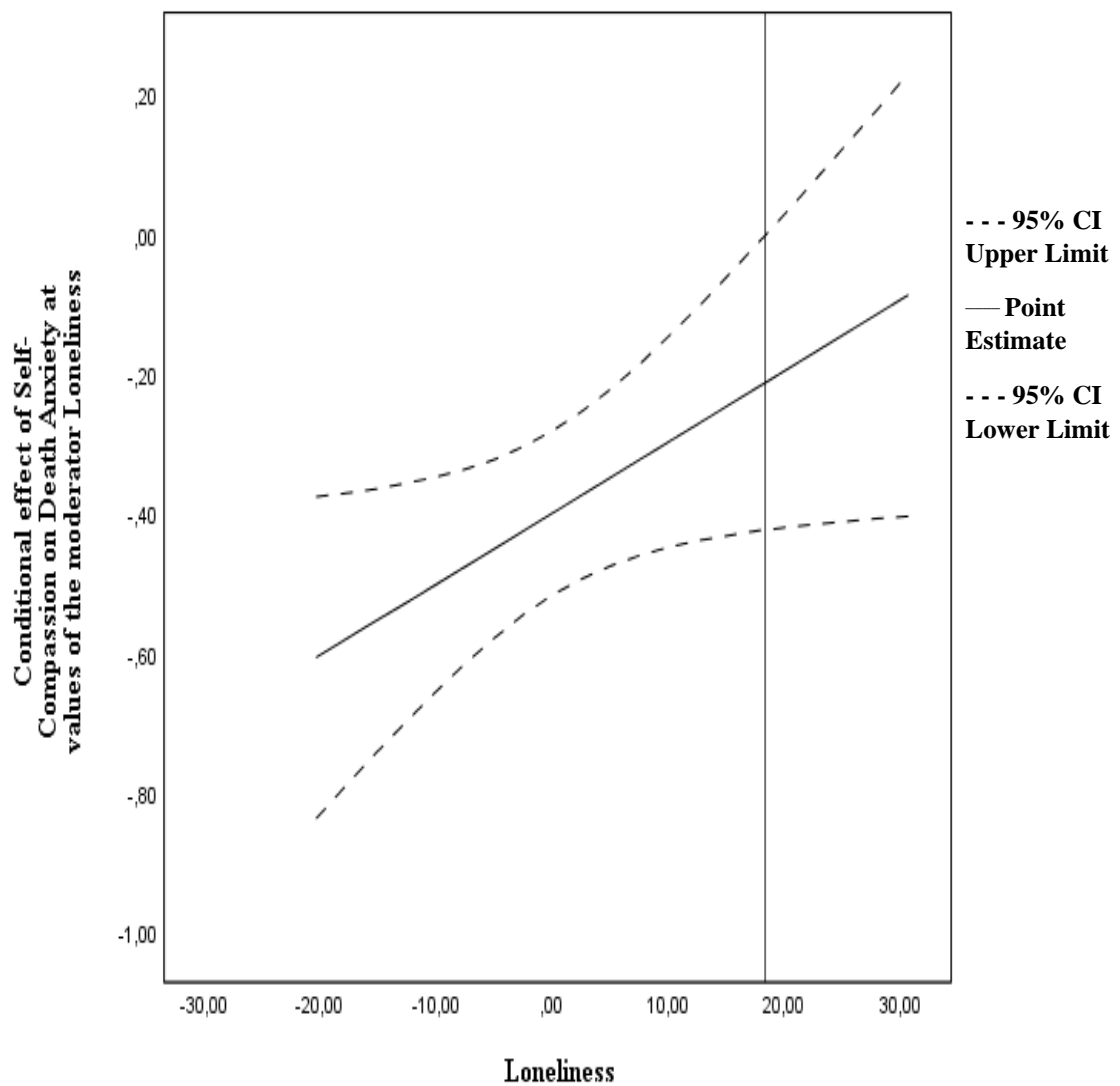
death-anxiety.

Figure 1.   Johnson-Neyman graph depicting the conditional effect of Self-
Compassion on Death Anxiety at different values of Loneliness. Values of the
variable Loneliness are mean-centered. Left side of the vertical reference line (at the
Loneliness value of 18.35) shows the area where the conditional effect of self-
compassion on Death Anxiety is significant, whereas right side of this line shows the
area by which such effect is not significant. CI = Confidence Interval

CHAPTER 4

DISCUSSION

4.1 Summary of findings

This study was conducted to examine which parameters were related to levels of

death anxiety of an individual at a given time point. Terror Management Theory,

which is one of the most oft-used theories that explains the influence of death

awareness on human behavior, points out two personal constructs that assumedly

function to relieve the anxiety that arises from the cognitive knowledge about one's

own mortality: cultural worldviews and self-esteem (Solomon et al., 1991). Unlike

the majority of empirical studies on TMT, which aim to manipulate the mortality

awareness of individuals and then measure their attitudes related to cultural

worldviews and self-esteem (Burke et al., 2010), this study had a correlational design

without a variable manipulation. Five variables, namely self-esteem, self-

compassion, presence of meaning in life, search for meaning in life and loneliness,

were utilized to examine their correlation with death anxiety and their predictive

power on it via regression analyses. Considering that cultural worldviews provide a

sense of meaning in life for the individual (Routledge et al., 2010), presence of

meaning and search for meaning in life were measured to assess a sort of quantitative

measurement of cultural worldviews. A self-reported measure of self-esteem, which

is a fundamental variable by TMT studies based upon its presumed role of providing

an anxiety-buffer (Greenberg, Solomon & Pyszczynski, 1997), was utilized.

Furthermore, two variables which have not been an empirical focus of attention by

TMT studies, but potentially could be associated with death anxiety and what TMT

offers, were assessed: self-compassion and loneliness. We hypothesized that if all

these variables are constructs that are empirically or potentially related to defense mechanisms that individuals cling to in the face of mortality salience, then they should have significant quantitative associations with death anxiety also in the absence of any salient reminder of mortality.

As hypothesized, results showed that death-anxiety was significantly negatively correlated with presence of meaning in life, self-compassion and self-esteem, whereas it was significantly positively correlated with search for meaning in life (See Table 1). In contrast to our hypothesis, death anxiety and loneliness were not significantly correlated. Only the correlation between self-compassion and death anxiety was moderate, whereas presence of meaning, search for meaning and self-esteem had low correlations with death anxiety (See Table 1).

The two-step hierarchical regression model, which included three demographical variables (age, gender and recent exposure to a death-related event) as the first step and all five continuous variables as second the second step, accounted for a significant variance in the dependent variable of death anxiety by both steps (See Table 2). This supported our hypothesis about five continuous variables explaining a significant amount of variance in death anxiety levels (See Table 2).

In the regression model, as hypothesized, search for meaning in life, presence of meaning in life, self-compassion, gender and presence of recent exposure to a death-related event had significant coefficients (See Table 2). In contrast to our hypothesis, loneliness and self-esteem failed to have significant coefficients. Although variable of self-esteem had a *p* value of .10, which might be considered to indicate a "marginal significance" by some recent researchers (Pritschet, Powell & Horne, 2016), it is worth mentioning that coefficient of self-esteem had a positive

value. This collided with the assumption of self-esteem having a negative coefficient in the regression model, while also contradicting with the negative correlation between self-esteem and death anxiety (See Table 1). This may be due to the fact that self-esteem in the regression model had either low or negligible predictor importance. Also, its predictive power could be already comprised by other parameters in the regression model, such as self-compassion, which had a strong correlation with self-esteem (See Table 1). Hence, our hypothesis about self-esteem having a significant coefficient in the regression model was not supported. Our hypothesis about self-compassion, having a stronger quantitative association with death anxiety than self-esteem did, was clearly confirmed.

Our hypothesis about self-esteem being a potential moderator between two meaning-in-life subscales and death anxiety, based on the previously mentioned findings of the study by Routledge et al. (2010) was not confirmed. Only moderation effect detected in this study was carried out by loneliness, as it moderated the relationship between self-compassion and death-anxiety (See Figure 1). Moderation analyses indicated that predictive power of self-compassion on death anxiety decreased significantly when levels of loneliness were above a certain point.

In terms of subscales of self-compassion, only the variable of over-identification had a significant coefficient in the regression model that had death-anxiety as the dependent variable (See Table 3). It is important to note that variables of mindfulness, isolation and self-judgment had a "marginally significant" coefficient, with their p-values being between .05 and .10 (Pritschet, Powell & Horne, 2016). (See Table 3). The nature of the associations between the subscales and death anxiety were as expected, as over-identification, self-judgment and

isolation had positive coefficients in the regression model, while mindfulness, common humanity and self-kindness had a negative coefficient.

4.2 Self-esteem vs. Self-compassion

4.2.1 Questioning the anxiety-buffer role of self-esteem

A striking finding of the study was self-compassion having highest predictive importance on death anxiety amongst main continuous variables, especially in contrast to the negligible predictive power of self-esteem (See Table 2). Although self-esteem is an essential cornerstone for TMT, various researchers have already questioned its assumed role of anxiety-buffer against death anxiety, both theoretically and empirically (Leary, 2004; Burke et al., 2010). Meta-analysis by Burke et al. mentioned several studies by which high explicit self-esteem was associated with more expression of cultural worldview defenses in the face of MS, implying that individuals with high explicit self-esteem had a higher need to hold on to worldview defenses to relieve themselves from death anxiety. On the other hand, Burke et al. indicated that implicit self-esteem could play the presumed anxiety buffer role. Correspondingly, studies by Schmeichel et al. (2009), by which levels of both implicit and explicit self-esteem were measured, found out that both dispositionally high implicit self-esteem and experimentally boosted implicit self-esteem provided an anxiety-buffer to the participants in the face of MS, decreasing their need of clinging to worldview defenses. Furthermore, Schmeichel et al. stated that participants who were most vulnerable against the emotional impact of death reminders, in terms of showing worldview defenses, were the ones with both low implicit self-esteem and high explicit self-esteem.

Considering that a self-reported self-esteem scale was used in this study, namely Rosenberg Self-Esteem Scale (Rosenberg, 1965), it is highly possible that what obtained was an assessment of explicit self-esteem. Although this scale initially was not designed to measure specifically explicit self-esteem, after the introduction of concepts of explicit and implicit self-esteem it has been frequently used to distinctively assess explicit self-esteem (Schimmack & Diener, 2003). Results of this study implied a negligible predictive power of self-reported self-esteem on death anxiety (See Table 2), as well as a low correlation between them (See Table1). Jong et al.'s (2018) findings on how extrinsic and intrinsic religiosity have a distinctive influence on death anxiety may imply that such distinction seems possibly valid for implicit and explicit assessments of self-esteem, in a way that the theoretically presumed functions of these self-constructs may be more visible when they are implicitly assessed.

The argument by Plusnin et al. (2018) about the role of relation-contingent self-esteem in the relation between close relationships and death-thought accessibility may also provide insight about the anxiety-buffer function of self-esteem. Although high relationship-contingent self-esteem serves for the maintenance of a close relationship which helps to decrease the accessibility of death-thoughts, it is also considered as unhealthy form of self-esteem that may lead to problems in relationship (Knee, Canevello, Bush & Cook, 2008). Similarly, self-esteem may possibly have evolved as some sort of defense against emotional impacts of threats to well-being, such as death. However, it is a matter of question whether such defense works efficiently in the long term to fulfill its function or it becomes maladaptive.

Despite the implications of this study that question the nature of the relation between self-esteem and death anxiety, one should not overlook the presence of some recent studies which supported the quantitative association between two variables. Study by Klackl, Jonas and Kronbichler (2014) provided neurological support on how self-esteem moderated neuronal responses to mortality-related stimuli, in a way that individuals with lower explicit self-esteem had a tougher time of regulating such stimuli. Study by van Tujil et al. (2016) failed to support the hypothesis that implicit self-esteem could be associated with anxiety disorders, while such association was present for explicit self-esteem. Study by Chung, Cha and Cho (2015) showed a negative correlation between explicit self-esteem and death anxiety among Korean participants. All these studies by Klackl et al, van Tujil et al. and Chung et al. utilized the self-reported self-esteem scale that was also used in this study. Taking also into account that the correlation between self-esteem and death-anxiety was low but still significant in this study (See Table 1), it would be unrealistic to dismiss the association between self-esteem and death anxiety. Still, it is a matter of discussion whether self-esteem should be theoretically considered as the "primary" anxiety-buffer as suggested by TMT, especially in contrast to self-compassion.

4.2.2 Self-compassion and death anxiety

Self-compassion, as mentioned before, may be considered as a good candidate to play an anxiety-buffer role against unpleasant feelings and thoughts that death awareness creates (Neff, 2003a). Acknowledging personal inadequacy as a global aspect of human experience, coming to terms with being not a "perfect" nor "divine" creature and approaching with kindness to oneself in the face of negative experience

are all fundamental elements of the concept of self-compassion (Neff & Vonk, 2009). As mentioned before, death is a trigger of feelings such as inadequacy, existential emptiness, fear of isolation, loneliness, pain and losing control (Neimeyer, 2015). In this case, one may argue that approaching oneself in a self-compassionate way could help an individual in coping with the negative psychic impact that awareness of mortality creates. Furthermore, self-compassion, being negatively associated with the need for cognitive closure (Neff & Vonk, 2009), might be a protective factor against death anxiety, as it seems more feasible emotionally to come to some sort of terms with mortality rather than desperately trying to reach a cognitive closure about such enigma. Hence, we hypothesized that participants with higher self-compassion would express less death anxiety. Results of this study supported that self-compassion had a strong negative association with death anxiety.

A way of explaining how exactly self-compassion helps individuals to have lower death anxiety may be based on the emotional regulation aspect of self-compassion. Systematic review by Inwood and Ferrari (2018) provided support for self-compassion being positively related with mental health via promoting emotion regulation. More specifically, Inwood and Ferrari claimed that emotion regulation mediated the relationship between self-compassion and mental health. Study by Ehret, Joorman and Berking (2018), comparing the effect of employing self-compassion with the effect of acceptance and reappraisal in the face of induced depressed mood, indicated that self-compassion was more effective than other conditions in terms of decreasing the depressed mood. Ehret et al. stated self-compassion may be a "pertinent preliminary treatment target" for people who are in pathologic emotional states. Study by Diedrich, Burger, Kirchner and Berking (2017) supported the mediator role of emotion regulation in the relationship between self-

compassion and mental health and also showed that the ability to tolerate negative emotions was the strongest emotion regulation skill to mediate such relationship for depressed individuals. Diedrich et al. argued that fomenting self-compassion might provide mental support for depressed individuals by boosting their skills to tolerate unpleasant emotions.

Although studies by Ehret et al. (2018) and Diedrich et al. (2017) focused on depressed participants, one might argue that impact of self-compassion on emotion regulation might also be valid for general population and common types of anxieties, such as death anxiety. Given that awareness of mortality is a big challenge for reaching a cognitive closure, as well as being able to create feelings of "terror" despite all defenses against it, a good way to deal with it may be finding a way to tolerate its inevitable negative emotional impact. On the other hand, it is a topic of question to what extent the concept of self-esteem, which is based on feelings of self-adequacy and competence (Rosenberg, 1965), can help individuals to handle already present negative situations, thoughts and emotions. Correspondingly, Neff and Germer (2017) reported that self-compassion-based intervention methods have recently been preferred over self-esteem-based ones and such interventions have been found to elevate levels of optimism, happiness, life satisfaction and self-efficacy.

4.2.3 Subscales of self-compassion

Regarding the results of regression analysis between the six subscales of self-compassion and death anxiety, it is a challenge to explain why only subscale of over-identification had a significant coefficient (See Table 3). It should be noted that coefficient of mindfulness, the reverse scale of over-identification, had the p-value of

.07, which was the nearest to being significant among the subscales except over-identification. Expectedly, death anxiety had a positive association with over-identification subscale and a negative one with mindfulness. This underlines the importance of the association between death anxiety and the subconstruct of self-compassion that includes over-identification and mindfulness. This subconstruct is based on maintaining a balanced awareness of one's current negative experience without being personally preoccupied with the unfavorable sides of it (Neff, 2003b). Apparently, participants who possessed the notion of acting "mindfully" in the face of painful events and who did not rush to reach negative personal inferences, were better at coping with the awareness of own mortality. Considering the previously mentioned association between emotion regulation, self-compassion and mental health (Inwood & Ferrari, 2018), it is possible that people, who do not overidentify themselves with negative emotions, do a better job at regulating death anxiety. Not ignoring nor ruminating on aspects of death but maintaining a balanced and "mindful" approach to them might cause to express less anxiety about death (Bannink, 2015).

Although subscales of isolation and self-judgment had "marginally significant" coefficients in the regression model (See Table 3), their reverse subscales, common humanity and self-kindness, had statistically non-significant coefficients, which makes it harder to represent a case about their potential predictive power on death anxiety. Considering the moderator role of loneliness in the association between self-compassion and death-anxiety (See Figure 1), together with the conceptual relevance between loneliness and isolation, it would be fair to expect a stronger association between isolation subscale and death anxiety. Also considering that fear of isolation is often a component of death anxiety (Neimeyer, 2015), one might argue that people

who tend to feel isolated in the face of negative experiences, may have higher death anxiety. Despite the lack of strong predictive power of the isolation subscale on death anxiety, presence of such association may be further examined by future studies in this domain.

Results of the regression model including self-compassion subscales may also provide insight for future studies whether to use the regular version of self-compassion scale or the shorter version, which does not include subscales (Raes, Pommier, Neff & Van Gucht, 2011). Absence of subscales other than over-identification that had a significant coefficient in the regression model (See Table 3) may be interpreted as an encouragement to utilize the short form of the scale for similar type of studies.

4.3 Death anxiety as a valid variable for TMT studies

Another aspect of this study was that it assessed death anxiety of participants via a self-reported death anxiety scale and used death anxiety as a dependent variable; which is rarely preferred in TMT studies (Burke et al., 2010; Abeyta et al., 2010). Considering that death-thought accessibility has recently become a frequently utilized variable by TMT studies and it is also utilizable in correlational designs (Routledge et al., 2010), death anxiety, being conceptually similar to death-thought accessibility, may be also more frequently used as a variable in future TMT studies. Concept of death-thought accessibility implies that it is possible to assess to what extent death-related thoughts are accessible in individual's psyche at a given point (Hayes et al., 2010). If we assume that such thoughts may create some level of anxiety in one's psyche, concept of death anxiety may possibly be a valid assessment tool for TMT literature.

Study by Abeyta et al. (2014), which examined the effect of MS on death anxiety levels, showed that MS led to increased death anxiety not immediately after MS manipulation but after some delay. Abeyta et al. underlined that such effect was only observed by participants with low self-esteem, which was assessed by a self-reported scale. These results implied that just like the other dependent variables frequently used majority of MS studies, death anxiety levels were elevated after some delay and were moderated by a certain anxiety-buffer. Although Solomon et al. (1991) argued that it is not practical to measure death anxiety due to the defenses that function to decrease it, study by Abeyta et al. and this study indicate that it is still possible to detect the quantitative association between death anxiety and certain parameters that TMT focuses on.

One disadvantage of assessing death anxiety via a self-reported scale in contrast to death-thought accessibility may be based on their manner of measurement. Death-thought accessibility, being measured via word-completion tasks, may provide a more "implicit" assessment of the presence of such thoughts (Greenberg et al., 1994), in contrast to a death anxiety survey, which directly asks participants questions about death and their own mortality (Thorson & Powell, 1992). It is also a risk that such questions about death and mortality in death anxiety scales might function as mortality salience manipulation for participants. Burke et al. (2010) indicated that 7 percent of MS studies used closed-ended survey questions about the topic of death as MS manipulation.

4.4 Search for meaning vs. presence of meaning in life

Previous research focusing on the relation between aspects of meaning in life and death anxiety showed empirical support for that perceived meaning in life could be

an "indicator of a well-established symbolic defense system" that relieves the anxiety that awareness of death creates (Routledge et al., 2010). Correspondingly, results of this study showed that both presence of meaning and search for meaning in life had significant correlations with death anxiety (See Table 1) and significant predictive power on death anxiety (See Table 2). Results also showed that search for meaning in life, which has not been a topic of focus by majority of TMT studies (Burke et al., 2010) had a stronger correlation with death anxiety (See Table 1) and a higher predictive power on death anxiety than presence of meaning in life did (See Table 2). Furthermore, coefficient of presence of meaning in regression models would not be significant if the alpha level of significance in this study was calculated as .01, whereas search for meaning in life would still maintain its significance in such case (See Table2). These results imply that search for meaning in life, as compared to presence of meaning, had a stronger quantitative relation with death anxiety

As mentioned before, several studies up to date, which focused not only on presence of meaning in life but also search for meaning in life, showed that search for meaning in life had a stronger link with death anxiety than presence of meaning (Lyke, 2013; Latha et al., 2013). Latha et al. argued that high levels of search for meaning in life could be related to feelings of uncertainty and not having a stable purpose in life, which would reinforce death anxiety. It is important to note that high levels of search for meaning in life has already been linked to higher degrees of anxiety, rumination and negative affect, which makes the link between search for meaning and death anxiety more plausible (Quinn & Reznikoff, 1985; Steger, Kashdan, Sullivan & Lorentz, 2008). However, it still needs explanation why search for meaning in life turned out to be a better predictor of death anxiety than presence of meaning in life in this study, as well as in Lyke's and Latha et al.'s studies. A

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solid attempt of explanation up to date is Lyke's argument of common component of search for meaning and death anxiety being the element of anticipation of future events, which presence of meaning in life lacks.

Considering that results of this study regarding the lack of a strong association between death anxiety and self-esteem, which arguably reflects a manifestation of explicit and ostensible self-worth (Neff & Lamb, 2009), measurement of presence of meaning might possibly have a similar inadequacy. In contrast to items of search for meaning subscale, items of presence of meaning subscale are basically questions asking whether you "have it or not" (Steger et al., 2006). On the other hand, Steger et al.'s items of search for meaning subscale focus on the process of seeking rather than "what you possess right now". If we consider death as a problem to which no ultimate answers can be possessed but only can be seeked for, it might make sense that search for meaning in life may be more associated with death anxiety than presence of meaning in life does. Results of this study do not conflict with the common consensus in literature that levels of presence of meaning in life are negatively correlated with death anxiety, but the power of this association, especially compared to the association between search for meaning and death anxiety, is questioned. Furthermore, considering that search for meaning and presence of meaning failed to have a significant correlation in this study (See Table 1), search for meaning in life should not be seen as a "lack of presence of meaning in life", and should not overlooked by future TMT studies.

4.5 Loneliness as a variable for TMT studies

Considering the past research on the quantitative association between loneliness and death anxiety (Pinson, 2010) and previous TMT studies that showed the anxiety

buffer function of close relationships in the face of MS (Plusnin et al., 2018), we expected that loneliness would be significantly positively correlated with death anxiety. Although this relationship was failed to be found, it is important to note that loneliness was significantly correlated to other main variables of this study, self-compassion, self-esteem, presence of meaning and search for meaning (See Table 1). The nature of these correlations was in the expected manner, as loneliness was negatively correlated to self-esteem, presence of meaning in life and self-compassion (Pinson, 2010). These correlations support the face and construct validity of the loneliness measurement, however the lack of any direct link between loneliness and death anxiety should be a topic of interest.

A possible explanation for the lack of direct quantitative association between loneliness and death-anxiety could be regarding what the loneliness scale assesses. Items of loneliness scale include questions that assess being physically lonely, such as "I am unhappy doing so many things alone", as well as subjective feeling of loneliness, such as "People are around me but not with me" (Russell et al., 1978). Taking into account of the aforementioned findings of Carstensen (1992) regarding the difference between social and emotional loneliness, what loneliness scales exactly assess might be a matter of discussion. Although Russell el al.'s loneliness scale provides an assessment on subjective emotions of loneliness, also frequency of social interactions in daily life of the individual are probably an element by such assessment. Considering that death anxiety and other measures of self-constructs that were used in this study depend more on intrapsychic aspects, this difference might be one of things that contributed to the lack of a direct quantitative association between loneliness and death anxiety.

The distinction between parameter of loneliness and self-constructs that depend dominantly on intrapsychic aspects might also give an insight about the moderator role of loneliness between self-compassion and death anxiety. When participants had a certain high level of loneliness, self-compassion lost its predictive power on death anxiety (See Figure 1), perhaps due to the strong emotional and cognitive impact of being socially isolated in daily life. For such participants, having a high self-compassion, although it was found to be a strong intrapsychic protective factor against death anxiety, could not be enough to relieve the death anxiety. This finding is similar to findings of the study by Tomer and Eliason (1996), which indicated that loneliness moderated the relationship between beliefs about oneself, which are essential elements of self-constructs, and attitudes towards death.

Another explanation for the lack of significant association between loneliness and death anxiety could be the related to the methodological assessment of loneliness in this study. Systematic review by Plusnin et al. (2018) showed that although loneliness is a valid indicator of lack of close relationships, assessment of loneliness of an individual and quality of close relationships are not treated as interchangeable variables by the literature. Review by Plusnin et al. indicated that studies in TMT literature in this domain have been mostly based on the direct assessment of close relationships, rather than the subjective feeling of loneliness that is expected to arise from lack of close relationships. Although this difference is not enough explaining the lack of correlation between loneliness and death anxiety, conceptual and methodological distinctions between assessing loneliness and close relationships should be further examined.

4.6 Gender, recent exposure to a death related event and age

In contrary to our hypothesis, female participants, as compared to male participants, had a higher mean of death anxiety scores (See Results section). Although there is not a consensus in TMT literature about the relation between gender and death anxiety (Burke et al., 2010), there is already a number of studies in the literature which indicated female participants having higher death anxiety than male participants (Russac et al., 2007).Considering the presence of similar findings of studies which included Turkish young adults as participants (Şahin, Demirkıran & Adana, 2016; Kimter & Koftegul, 2017) our findings related to gender and death anxiety are expectable.

Another hypothesis of this study, regarding the presence of recent exposure to a death-related event, was supported, as such presence was associated with higher death anxiety levels. There is already a strong consensus in the literature about how facing death-related events, such as losing a loved one, going through a serious illness or witnessing a terrorist attack, may increase death anxiety (Yalom, 1989; Iverach et al., 2014). Many studies on post-traumatic stress disorder showed how the psyche of individual gets negatively affected by a traumatic event, such as elevated death anxiety levels both in short term and long term after such event (Simpson, 1997). Yalom (1989) argued that being exposed to traumatic death-related events can shake the foundations of defense mechanisms that function to keep death anxiety at bay; causing the individual to be psychologically more vulnerable against death anxiety. Furthermore, MS studies in TMT literature are theoretically based on a similar understanding, as they basically expose participants to stimuli that remind mortality, hence triggering death anxiety and assessing certain defense mechanisms against it (Greenberg, et al., 1986). In the same manner, participants of this study,

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who reported to be exposed to a death-related event, possibly higher death thought accessibility than others, which would make it plausible that they had higher death anxiety levels.

This study failed to find a direct association between age and death anxiety levels. Although the range of age in this study was from 18 to 45 (See Table 1), 95.2 percent of participants were younger than 28 years old. This made it impractical to assess a comparison between various age groups that contributed in this study. This is also the reason why age was not tested as a moderator variable between other assessed variables in this study.

4.7 Implications, strengths, limitations and future research

A vital finding of this study was being theoretically based on Terror Management Theory, it managed to find "significant" results by using correlational design without a variable manipulation; a design TMT studies rarely use. Considering that the average sample size of MS-based TMT studies is 87.3 (Burke et al., 2010), sample size of this study, being 315, can be regarded as a strength. The relatively big sample size of this study may have inflated the impact of any potential sampling bias, hence the significance and magnitude of correlations found in this study may potentially be inflated (Kaplan, Chambers & Glasgow, 2014). Having said that, the fact that all significant correlations found in this study being significant at level of $p < .01$, may provide support about the validity of these correlations.

The effect size of the hierarchical regression model that included death anxiety as the dependent variable was $f^2 = .32$, which is a moderate effect size (Cohen, 1988). Taking into account that TMT studies in average have a moderate effect size and they tend to have a lower effect size when they are conducted with

non-American samples (Burke et al., 2010), effect size of this study may be considered as acceptable. Reaching a moderate effect size using a Turkish participant sample may provide reference for future TMT studies which use non-American samples. Also considering that data in this study were collected online in a short period of time, this study is easy to replicate by using the same variables or adding or removing certain variables.

In this study data were collected via an online survey tool within five days. This implies certain methodological risks, such as potential confounding variables that could particularly influence the responses of participants during those five days. Given that Turkish people are exposed to incidents of mass trauma not rarely, time of the data collection was important, as it could influence the nature of the responses. It is important to note that data was collected in May of 2018 and there was not a remarkable incident of mass trauma during that period in Turkey. Future studies in this domain may use a longitudinal design, by which time of the data collection could also become a parameter.

Considering certain risks of collecting data via Internet, such as lack of building a rapport with participants and source credibility (Bemfield & Szlemko, 2006), it may be fair to assume that this study had such methodological risks. Furthermore, because of presenting scales to participants in randomized fashion via Internet, it was not possible to detect the potential "mortality salience" effects of presenting a death-anxiety survey to participants. Such potential effect can be examined in "in person" settings, by specifically arranging the presentation order of the death-anxiety scale.

The study had certain methodological weaknesses, especially in the domain of demographics of participants. A clear majority of participants of this study were

undergraduate students from Bogazici University in Turkey, which makes the participant sample consisting of a relatively homogenous demographic group, rather than a heterogeneous sample of the general population. Moreover, this homogeneity made it impractical to examine the potential influence of occupation on death anxiety levels. A number of studies in the literature indicated that people, whose occupations frequently involved the risk of or exposure to death, such as medical staff members, police officers and undertakers, had higher death anxiety than the rest of population (Feifel, Hanson, Jones & Edwards, 1967; Lattanner & Hayslip, 1985; Neimeyer, Bagley & Moore, 1986; Thorson and Powell, 1996). Considering that MS hypothesis is based on the association between being exposed to death-related stimuli and death-thought accessibility, further research might aim to obtain a participant sample consisting of various occupations.

Another methodological risk of the study was regarding the self-report measures that were used. Although participants were remained anonymous, there is still the risk of social desirability response bias in self-report-based designs (Holtgraves, 2017). Because of the problems about assessing self-esteem via self-report scales, this bias may have particularly influenced the responses of participants to the self-esteem scale, hence the nature of the findings. On the other hand, study by Johnson (1999) indicated that Internet-based data collection, by which anonymity is kept, was the design that included the least social desirability bias.

Results of this study, indicating a strong association between self-compassion and death anxiety, may be regarded as a reference to investigate the relationship between self-compassion and death-related psychological aspects further. Up to date, very low number of TMT studies examined the role of self-compassion as an anxiety buffer. Using MS based methodological designs, such studies failed to support the

presence of such role (Kisa, 2015; Ashish, 2016). Future studies, using either an experimental or correlational design, may focus on the role of self-compassion as an anxiety-buffer, especially compared to the presumed role of self-esteem.

Another important finding of this study was that presence of recent exposure to a death-related event having a high predictive power on death anxiety. This underlines the potential impact of recent exposure to a death-related event, or "MS stimuli" in TMT jargon, on death anxiety levels. It is worth noting that a close-ended question was used in this study to assess the presence of such exposure. Future studies may use specific trauma-related scales to obtain a better assessment of any potential impact of a recent exposure to a death-related event on death-related attitudes.

4.8 Conclusion

Findings of this study may provide some insight for the empirical aspect of Terror Management Theory. We argued that studies on TMT may provide support for the theory via using correlational designs without any mortality salience manipulation. Furthermore, although death anxiety is a variable that TMT literature "hesitates" to make mention of and rarely utilizes, it may have an essential part in TMT studies not only theoretically but also empirically. TMT literature may also examine and question the role of self-esteem further, as other self-constructs, such as self-compassion, may be more efficient "anxiety buffers" than explicitly assessed self-esteem.

Yalom (2008) stated that as a psychotherapist he aimed to help his patients recognize that death anxiety is at the heart of much of our anxiety. He claimed that by confronting mortality and the anxiety it creates, one can cherish the life more.

However, death anxiety is often defended against by various defense mechanisms, which makes it harder for individuals to put a finger on it unless they go through a death-related experience; "an awakening experience" as Yalom called it. Similarly, as an intern psychotherapist at the moment, I find it surprising how my clients generally state that death is "not something that bothers them". Findings of this study might provide some psychotherapeutic insight on how to work with clients whose feelings about death are not necessarily in the conscious level. This study points out some constructs that are associated with death anxiety, which are relatively easier to personally express, observe and assess. Specifically, self-compassion, which turned out to have a strong negative association with death-anxiety, can be a focus of attention by therapeutic processes, which consider death anxiety as an essential therapeutic material.

APPENDIX A

CONSENT FORM

Dear Participant,

This study is carried out by Anıl Sübeten, a Clinical Psychology graduate student at Boğaziçi University. It is conducted under the supervision of Prof. Falih Köksal. The aim of the study is to examine the personal factors associated with the concern created by the reality of death.

In the study, you will be presented a total of 5 scales. All of the scales are expected to take 10 to 15 minutes to complete.

The study is carried out with the approval of Boğaziçi University Ethics Committee. Your credentials are not required to participate in the study. Any data belonging to you within the scope of the study will be kept completely confidential and will not be used for any purpose other than this study. The study is voluntary and is not expected to bring any risk to the participants.

If you want to get detailed information about the study or be informed about the results of the study, you can contact Anıl Sübeten. (anil.subeten@boun.edu.tr).

THORSON-POWELL DEATH ANXIETY SCALE

Please read each statement carefully. For each item, indicate to what extent that statement is valid for you on a scale from 1 ("Not at all") to 5 ("I totally agree").

1. I'm afraid of suffering to die. (1) (2) (3) (4) (5)

2. It makes me nervous not to know what the other world is like. (1) (2) (3) (4) (5)

3. After I die, the idea of not thinking again makes me horrified. (1) (2) (3) (4) (5)

4. What's going to happen to my body after I'm buried doesn't worry me.

(1) (2) (3) (4) (5)

5. Coffins make me uncomfortable. (1) (2) (3) (4) (5)

6. I hate the thought that I will lose control of my work after death. (1) (2) (3) (4) (5)

7. I am concerned that I will be completely immobile after death. (1) (2) (3) (4) (5)

8. I am very afraid when I think that I will have surgery. (1) (2) (3) (4) (5)

9. Life after death is very worrying. (1) (2) (3) (4) (5)

10. I am not afraid of a slow and prolonged death. (1) (2) (3) (4) (5)

11. I don't mind that I will be locked in a coffin when I die. (1) (2) (3) (4) (5)

12. The idea that I will be completely helpless after death makes me uneasy.

(1) (2) (3) (4) (5)

13. I have no interest in the existence of another life after death. (1) (2) (3) (4) (5)

14. It makes me feel uneasy not to feel anything again after I die. (1) (2) (3) (4) (5)

15. The suffering during the process of dying worries me. (1) (2) (4) (5)

16. I would like to have a new life after death. (1) (2) (4) (5)

17. I am not worried about being helpless forever. (1) (2) (3) (4) (5)

18. The idea that my corpse will rot in the grave is terrifying me. (1) (2) (3) (4) (5)

19. I will be deprived of many things in the world after death. (1) (2) (3) (4) (5)

20. I am very worried about what will happen to us after death. (1) (2) (3) (4) (5)

21. It is not important for me to obtain worldly things and keep them under control.

(1) (2) (3) (4) (5)

22. I am terrified that death separates people from everything. (1) (2) (3) (4) (5)

23. I don't feel special fear of getting cancer. (1) (2) (3) (4) (5)

24. I will leave a detailed testament to what must be done after death.

(1) (2) (3) (4) (5)

25. I don't care what happens to my body after death. (1) (2) (3) (4) (5)

THORSON – POWELL DEATH ANXIETY SCALE

(TURKISH)

Aşağıdaki cümlelerin her birini okuyunuz. Cümlelerin sizin için ne kadar geçerli olduğunu 1'den 5'e kadar olan ölçekte uygun rakamı işaretleyerek belirtiniz. Ölçekte 1 "Hiç Katılmıyorum", 5 ise "Tamamen Katılıyorum" ifadelerini temsil etmektedir.

1. Acı çekerek ölmekten korkarım. (1) (2) (3) (4) (5)

2. Öbür dünyanın nasıl bir yer olduğunu bilmemek beni tedirgin eder.

(1) (2) (3) (4) (5)

3. Öldükten sonra bir daha düşünmemek fikri beni dehşete düşürür.

(1) (2) (3) (4) (5)

4. Gömüldükten sonra cesedime ne olacağı konusu beni kaygılandırmıyor.

(1) (2) (3) (4) (5)

5. Tabutlar beni huzursuz eder. (1) (2) (3) (4) (5)

6. Öldükten sonra işlerim üzerindeki kontrolü kaybedeceğim düşüncesinden nefret ederim. (1) (2) (3) (4) (5)

7. Ölüm sonrası tamamen hareketsiz kalmak beni kaygılandırır. (1) (2) (3) (4) (5)

8. Ameliyat olacağımı düşündüğümde çok korkarım. (1) (2) (3) (4) (5)

9. Ölümden sonraki hayat beni oldukça kaygılandırıyor. (1) (2) (3) (4) (5)

10. Yavaş ve uzun süren bir ölümden (canımın yavaş yavaş çıkmasından korkmuyorum. (1) (2) (3) (4) (5)

11. Öldüğüm zaman bir tabuta kapatılacak olmam düşüncesi benim için sorun değil.

(1) (2) (3) (4) (5)

12. Öldükten sonra tamamen aciz olacağım fikri beni huzursuz eder.

(1) (2) (3) (4) (5)

13. Öldükten sonra başka bir hayatın olup olmamasıyla hiç ilgilenmiyorum.

(1) (2) (3) (4) (5)

14. Öldükten sonra asla tekrar bir şey hissedememek beni huzursuz eder.

(1) (2) (3) (4) (5)

15. Ölürken çekilen ıstırap beni kaygılandırıyor. (1) (2) (3) (4) (5)

16. Öldükten sonra yeni bir hayatın olmamasını çok istiyorum. (1) (2) (3) (4) (5)

17. Ebediyen aciz olmaktan endişe duymuyorum. (1) (2) (3) (4) (5)

18. Cesedimin mezarda çürüyeceği düşüncesi beni dehşete düşürüyor.

(1) (2) (3) (4) (5)

19. Öldükten sonra dünyalık birçok şeyden mahrum kalacağım düşüncesi beni

rahatsız eder. (1) (2) (3) (4) (5)

20. Öldükten sonra bize ne olacağı konusunda çok kaygılanıyorum.

(1) (2) (3) (4) (5)

21. Dünyevi şeyleri elde etmek ve onları kontrol altında tutmak benim için önemli

değildir. (1) (2) (3) (4) (5)

22. Ölümün insani her şeyden ayıracak olması beni dehşete düşürüyor.

(1) (2) (3) (4) (5)

23. Kansere yakalanmaktan özel bir korku duymuyorum. (1) (2) (3) (4) (5)

24. Öldükten sonra yapılması gerekenlerle ilgili teferruatlı bir vasiyet bırakacağım.

(1) (2) (3) (4) (5)

25. Öldükten sonra vücuduma ne olacağı umurumda değil. (1) (2) (3) (4) (5)

UCLA LONELINESS SCALE

Please read each statement carefully. For each item, indicate to what extent that statement is valid for you on a scale from 1 ("Not at all") to 4 ("I totally agree").

1. I am unhappy doing so many things alone. (1) (2) (3) (4)

2. I have nobody to talk to. (1) (2) (3) (4)

3. I cannot tolerate being so alone. (1) (2) (3) (4)

4. I lack companionship. (1) (2) (3) (4)

5. I feel as if nobody really understands me. (1) (2) (3) (4)

6. I find myself waiting for people to call or write. (1) (2) (3) (4)

7. There is no one I can turn to. (1) (2) (3) (4)

8. I am no longer close to anyone. (1) (2) (3) (4)

9. My interests and ideas are not shared by those around me. (1) (2) (3) (4)

10. I feel left out. (1) (2) (3) (4)

11. I feel completely alone. (1) (2) (3) (4)

12. I am unable to reach out and communicate with those around me. (1) (2) (3) (4)

13. My social relationships are superficial. (1) (2) (3) (4)

14. I feel starved for company. (1) (2) (3) (4)

15. No one really knows me well. (1) (2) (3) (4)

16. I feel isolated from others. (1) (2) (3) (4)

17. I am unhappy being so withdrawn. (1) (2) (3) (4)

18. It is difficult for me to make friends. (1) (2) (3) (4)

19. I feel shut out and excluded by others. (1) (2) (3) (4)

20. People are around me but not with me. (1) (2) (3) (4)

UCLA LONELINESS SCALE

(TURKISH)

Aşağıdaki cümlelerin her birini okuyunuz ve cevaplayınız. Cümlelerin sizin için ne kadar geçerli olduğunu 1'den 4'e kadar olan ölçekte uygun rakamı işaretleyerek belirtiniz. Ölçekte 1 "Hiç Katılmıyorum", 4 ise "Tamamen Katılıyorum" ifadelerini temsil etmektedir.

1. Kendimi çevredeki diğer insanlarla uyum içinde hissediyorum. (1) (2) (3) (4)

2. Pek arkadaşım yok. (1) (2) (3) (4)

3. Başvurabileceğim hiç kimse yok. (1) (2) (3) (4)

4. Kendimi yalnız hissetmiyorum. (1) (2) (3) (4)

5. Kendimi bir arkadaş grubunun bir parçası gibi hissediyorum. (1) (2) (3) (4)

6. Çevremdeki insanlarla birçok ortak yönüm var. (1) (2) (3) (4)

7. Artık hiç kimseyle samimi değilim. (1) (2) (3) (4)

8. İlgilerim ve fikirlerim çevremdekilerce paylaşılmıyor. (1) (2) (3) (4)

9. Dışa dönük bir insanım. (1) (2) (3) (4)

10. Kendimi yakın hissettiğim insanlar var. (1) (2) (3) (4)

11. Kendimi toplum dışı bırakılmış hissediyorum. (1) (2) (3) (4)

12. Sosyal ilişkilerim yüzeyseldir. (1) (2) (3) (4)

13. Hiç kimse beni gerçekten iyi tanımıyor. (1) (2) (3) (4)

14. Kendimi diğer insanlardan soyutlanmış hissediyorum. (1) (2) (3) (4)

15. İstediğim zaman arkadaş bulabilirim. (1) (2) (3) (4)

16. Beni gerçekten anlayan insanlar var. (1) (2) (3) (4)

17. Bu kadar dışa itilmiş olmaktan ötürü mutsuzum. (1) (2) (3) (4)

18. Çevremde insanlar var fakat benimle değiller. (1) (2) (3) (4)

19. Çevremde konuşabileceğim insanlar var. (1) (2) (3) (4)

20. Derdimi söyleyebileceğim insanlar var. (1) (2) (3) (4)

ROSENBERG SELF-ESTEEM SCALE

Please read each statement carefully. For each item, indicate to what extent that statement is valid for you on a scale from 1 ("Not at all") to 4 ("I totally agree").

1. On the whole, I am satisfied with myself. (1) (2) (3) (4)

2. At times I think I am no good at all. (1) (2) (3) (4)

3. I feel that I have a number of good qualities. (1) (2) (3) (4)

4. I am able to do things as well as most other people. (1) (2) (3) (4)

5. I feel I do not have much to be proud of. (1) (2) (3) (4)

6. I certainly feel useless at times. (1) (2) (3) (4)

7. I feel that I'm a person of worth, at least on an equal plane with others.

(1) (2) (3) (4)

8. I wish I could have more respect for myself. (1) (2) (3) (4)

9. All in all, I am inclined to feel that I am a failure. (1) (2) (3) (4)

10. I take a positive attitude toward myself. (1) (2) (3) (4)

APPENDIX G

ROSENBERG SELF-ESTEEM SCALE

(TURKISH)

Aşağıdaki cümlelerin her birini okuyunuz. Cümlelerin sizin için ne kadar geçerli olduğunu 1'den 4'e kadar olan ölçekte uygun rakamı işaretleyerek belirtiniz. Ölçekte 1 "Hiç Katılmıyorum", 4 ise "Tamamen Katılıyorum" ifadelerini temsil etmektedir.

1. Kendimi en az diğer insanlar kadar değerli buluyorum. (1) (2) (3) (4)

2. Bazı olumlu özelliklerim olduğunu düşünüyorum. (1) (2) (3) (4)

3. Genelde kendimi başarısız bir kişi olarak görme eğilimindeyim. (1) (2) (3) (4)

4. Ben de diğer insanların birçoğunun yapabildiği kadar bir şeyler yapabilirim.

(1) (2) (3) (4)

5. Kendimde gurur duyacak fazla bir şey bulamıyorum. (1) (2) (3) (4)

6. Kendime karşı olumlu bir tutum içindeyim. (1) (2) (3) (4)

7. Genel olarak kendimden memnunum. (1) (2) (3) (4)

8. Kendime karşı daha fazla saygı duyabilmeyi isterdim. (1) (2) (3) (4)

9. Bazen kesinlikle bir işe yaramadığımı düşünüyorum. (1) (2) (3) (4)

10. Bazen kendimin hiç yeterli bir insan olmadığını düşünüyorum. (1) (2) (3) (4)

MEANING IN LIFE QUESTIONNAIRE

Please read each statement carefully. For each item, indicate to what extent that statement is valid for you on a scale from 1 ("Not at all") to 7 ("I totally agree").

1. I understand my life's meaning. (1) (2) (3) (4) (5) (6) (7)

2. I am looking for something that makes my life feel meaningful.

(1) (2) (3) (4) (5) (6) (7)

3. I am always looking to find my life's purpose. (1) (2) (3) (4) (5) (6) (7)

4. My life has a clear sense of purpose. (1) (2) (3) (4) (5) (6) (7)

5. I have a good sense of what makes my life meaningful. (1) (2) (3) (4) (5) (6) (7)

6. I have discovered a satisfying life purpose. (1) (2) (3) (4) (5) (6) (7)

7. I am always searching for something that makes my life feel significant.

(1) (2) (3) (4) (5) (6) (7)

8. I am seeking a purpose or mission for my life. (1) (2) (3) (4) (5) (6) (7)

9. My life has no clear purpose. (1) (2) (3) (4) (5) (6) (7)

10. I am searching for meaning in my life. (1) (2) (3) (4) (5) (6) (7)

MEANING IN LIFE QUESTIONNAIRE

(TURKISH)

Aşağıdaki cümlelerin her birini okuyunuz. Cümlelerin sizin için ne kadar geçerli olduğunu 1'den 7'e kadar olan ölçekte uygun rakamı işaretleyerek belirtiniz. Ölçekte 1 "Hiç Katılmıyorum", 7 ise "Tamamen Katılıyorum" ifadelerini temsil etmektedir.

1. Yaşamımın anlamını biliyorum. (1) (2) (3) (4) (5) (6) (7)

2. Yaşamımı anlamlı hissetmemi sağlayacak bir şeyler arıyorum.

(1) (2) (3) (4) (5) (6) (7)

3. Her zaman yaşamımın amacını bulmaya çalışıyorum. (1) (2) (3) (4) (5) (6) (7)

4. Yaşamımın net bir amacı var. (1) (2) (3) (4) (5) (6) (7)

5. Yaşamımı neyin anlamlı hale getireceğine ilişkin bir öngörüye sahibim.

(1) (2) (3) (4) (5) (6) (7)

6. Tatmin edici bir yaşam amacı keşfettim. (1) (2) (3) (4) (5) (6) (7)

7. Her zaman yaşamımı anlamlı hissettirecek şeyler araştırıyorum.

(1) (2) (3) (4) (5) (6) (7)

8. Yaşamım için bir amaç ve misyon arıyorum. (1) (2) (3) (4) (5) (6) (7)

9. Yaşamımın net bir amacı yok. (1) (2) (3) (4) (5) (6) (7)

10. Yaşamımda anlam arıyorum. (1) (2) (3) (4) (5) (6) (7)

APPENDIX J

SELF-COMPASSION SCALE

Please read each statement carefully before answering. For each item, indicate how often you behave in the stated manner, on a scale from 1 ("Almost Never") to 5 ("Almost Always").

1. I'm disapproving and judgmental about my own flaws and inadequacies.

(1) (2) (3) (4) (5)

2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.

(1) (2) (3) (4) (5)

3. When things are going badly for me, I see the difficulties as part of life that everyone goes through. (1) (2) (3) (4) (5)

4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world. (1) (2) (3) (4) (5)

5. I try to be loving towards myself when I'm feeling emotional pain.

(1) (2) (3) (4) (5)

6. When I fail at something important to me I become consumed by feelings of inadequacy. (1) (2) (3) (4) (5)

7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am. (1) (2) (3) (4) (5)

8. When times are really difficult, I tend to be tough on myself. (1) (2) (3) (4) (5)

9. When something upsets me I try to keep my emotions in balance.

(1) (2) (3) (4) (5)

10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people. (1) (2) (3) (4) (5)

11. I'm intolerant and impatient towards those aspects of my personality I don't like.
(1) (2) (3) (4) (5)

12. When I'm going through a very hard time, I give myself the caring and
tenderness I need. (1) (2) (3) (4) (5)

13. When I'm feeling down, I tend to feel like most other people are probably
happier than I am. (1) (2) (3) (4) (5)

14. When something painful happens I try to take a balanced view of the situation.
(1) (2) (3) (4) (5)

15. I try to see my failings as part of the human condition. (1) (2) (3) (4) (5)

16. When I see aspects of myself that I don't like, I get down on myself.
(1) (2) (3) (4) (5)

17. When I fail at something important to me I try to keep things in perspective.
(1) (2) (3) (4) (5)

18. When I'm really struggling, I tend to feel like other people must be having an
easier time of it. (1) (2) (3) (4) (5)

19. I'm kind to myself when I'm experiencing suffering. (1) (2) (3) (4) (5)

20. When something upsets me I get carried away with my feelings.
(1) (2) (3) (4) (5)

21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
(1) (2) (3) (4) (5)

22. When I'm feeling down I try to approach my feelings with curiosity and
openness. (1) (2) (3) (4) (5)

23. I'm tolerant of my own flaws and inadequacies. (1) (2) (3) (4) (5)

24. When something painful happens I tend to blow the incident out of proportion.
(1) (2) (3) (4) (5)

25. When I fail at something that's important to me, I tend to feel alone in my failure.

(1) (2) (3) (4) (5)

26. I try to be understanding and patient towards those aspects of my personality I

don't like. (1) (2) (3) (4) (5)

SELF-COMPASSION SCALE

(TURKISH)

Aşağıdaki cümlelerin her birini okuyunuz. Cümlelerin sizin için ne kadar geçerli olduğunu 1'den 5'e kadar olan ölçekte uygun rakamı işaretleyerek belirtiniz. Ölçekte 1 "Hiç Katılmıyorum", 5 ise "Tamamen Katılıyorum" ifadelerini temsil etmektedir.

1. Kendimi kötü hissettiğimde, kötü olan her şeye takılma eğilimim vardır. (1) (2) (3) (4) (5)

2. İşler benim için kötü gittiğinde zorlukların yaşamın bir parçası olduğunu ve herkesin bu zorlukları yaşadığını görebilirim. (1) (2) (3) (4) (5)

3. Yetersizliklerimi düşünmek kendimi daha yalnız ve dünyadan kopuk hissetmeme neden olur. (1) (2) (3) (4) (5)

4. Duygusal olarak acı yaşadığım durumlarda kendime sevgiyle yaklaşmaya çalışırım. (1) (2) (3) (4) (5)

5. Benim için önemli bir şeyde başarısız olduğumda, yetersizlik hisleriyle tükenirim. (1) (2) (3) (4) (5)

6. Kötü hissettiğimde, dünyada benim gibi kötü hisseden pek çok kişi olduğunu kendi kendime hatırlatırım. (1) (2) (3) (4) (5)

7. Zor zamanlar geçirdiğimde kendime daha acımasız olma eğilimindeyim. (1) (2) (3) (4) (5)

8. Herhangi bir şey beni üzdüğünde hislerimi dengede tutmaya çalışırım. (1) (2) (3) (4) (5)

9. Kendimi bir şekilde yetersiz hissettiğimde kendi kendime birçok insanın aynı şekilde kendi hakkında yetersizlik duyguları yaşadığını hatırlatmaya çalışırım.

(1) (2) (3) (4) (5)

10. Kişiliğimin sevmediğim yanlarına karşı hoşgörüsüz ve sabırsızım.

(1) (2) (3) (4) (5)

11. Çok sıkıntılıysam, kendime ihtiyacım olan ilgi ve şefkati gösteririm.

(1) (2) (3) (4) (5)

12. Kendimi kötü hissettiğimde diğer insanların çoğunun benden mutlu olduğunu düşünme eğilimindeyim. (1) (2) (3) (4) (5)

13. Acı veren bir şey olduğunda, durumu dengeli bir bakış açısıyla görmeye çalışırım. (1) (2) (3) (4) (5)

14. Başarısızlıklarımı insan olmanın bir parçası olarak görmeye çalışırım.

(1) (2) (3) (4) (5)

15. Sevmediğim yanlarımı gördüğümde kendi kendimi üzerim. (1) (2) (3) (4) (5)

16. Benim için önemli bir şeyde başarısız olduğumda, işleri belli bir bakış açısı içerisinde tutmaya çalışırım. (1) (2) (3) (4) (5)

17. Ben mücadele halindeyken diğer herkesin işlerinin benimkinden kolay gittiğini hissetme eğilimim vardır. (1) (2) (3) (4) (5)

18. Acı çektiğim zamanlarda, kendime karşı iyiyimdir. (1) (2) (3) (4) (5)

19. Bir şey beni üzdüğünde, duygusal olarak bunu abartırım. (1) (2) (3) (4) (5)

20. Acı çektiğim durumlarda kendime karşı daha soğukkanlı olabilirim.

(1) (2) (3) (4) (5)

21. Kendi kusur ve yetersizliklerime karşı hoşgörülüyümdür. (1) (2) (3) (4) (5)

22. Acı veren bir şey olduğunda, olayı büyütme eğilimim vardır. (1) (2) (3) (4) (5)

23. Benim için önemli bir şeyde başarısız olduğumda, başarısızlığın yalnız benim

başıma geldiği duygusunu hissetme eğiliminde olurum. (1) (2) (3) (4) (5)

24. Kişiliğimin sevmediğim yönlerine karşı anlayışlı ve sabırlı olmaya çalışırım.

(1) (2) (3) (4) (5)

DEMOGRAPHIC INFORMATION FORM

1. Yaşınız (*Your Age*): ___

2. Cinsiyetiniz (*Gender*): Kadın (*Female*) __ / Erkek (*Male*) ___

3. Mesleğiniz (*Occupation*): _____

4. Son zamanlara ölümle ilgili bir olaya (bir yakını kaybetmek, terör eylemi, ciddi bir hastalık, vb.) direkt maruz kaldınız mı? *(Have you recently been exposed to a death-related event (losing a close person, terror event, a serious disease, etc.)*?

5. Bu çalışmaya Boğaziçi Üniversitesi PSY dersi öğrencisi olarak ders kredisi karşılığında katıldıysanız okul numaranız ve kredi alacağınız dersi aşağıdaki kutucuğa yazınız *(If you participated to this study as a Boğaziçi University student in exchange for course credit, please write down your school number and the course you want to get credit for)*

School Number ____

Course ____

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