UNDERSTANDING SOMATIC SYMPTOMS: A MIXED METHOD INVESTIGATION OF PREDICTORS AND EXPERIENCES

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ABSTRACT

UNDERSTANDING SOMATIC SYMPTOMS: A MIXED METHOD INVESTIGATION OF PREDICTORS AND EXPERIENCES

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The present study was a mixed design research aimed to investigate possible predictors of somatic symptoms and participants' subjective conceptualization of those symptoms in non-patient population. For the quantitative part of the study, 326 participants aged between 19 and 65 were given Socioeconomic Status Scale, Brief Symptom Inventory, Emotional Non-Expressiveness Subscale for Type-C Behavior and IND-COL Scale. The association between age, socioeconomic status, emotional non-expressiveness, individualism, collectivism, depression, anxiety, phobic anxiety, obsessive-compulsiveness, hostility, interpersonal sensitivity, paranoid ideation, psychoticism and somatic symptoms were aimed to be estimated through multiple hierarchical regression analysis. The results showed that with the increased age somatic symptoms tended to increase. Additionally, collectivism was positively associated with increased somatic symptoms while the opposite was true for individualism. Obsessive-compulsiveness, anxiety and phobic anxiety were positively associated with somatic symptoms while socioeconomic status was negatively associated with somatic symptoms. In oder to understand subjective conceptualization of somatic symptoms, 10 participants who scored significantly

higher in somatization subscale in Brief Symptom Inventory were interviewed. The interviews lasted between 35 and 55 minutes. Thematic analysis was run for the short interviews and three themes were emerged as somatic symptoms, perceived reasons of symptoms and coping with somatic symptoms. Regardless the differences in somatic symptoms, all participants mentioned that stress and thinking too much were the perceived reasons of somatic symptoms. Results were discussed in the scope of the literature and the strengths and limitations of the present study, the clinical implications, directions for future studies were also presented.

Keywords: Somatic Symptoms, Socioeconomic Status, Culture, Anxiety, Obsessive-Compulsiveness

ÖZ

SOMATİK SEMPTOMLARI ANLAMAK: YORDAYICILARIN VE DENEYİMİN ANLAŞILMASI İÇİN KARMA YÖNTEMLİ BİR ÇALIŞMA

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Güncel çalışma somatik semptomların yordayıcılarını ve katılımcıların semptom deneyimlerini anlamak amacıyla yürütülmüş karma yöntemli bir çalışmadır. Çalışmanın niteliksel kısmına yaşları 19 ile 65 arasında değişen 326 yetişkin katılmıştır. Katılımcılar Sosyoekonomik Statü Ölçeği, Kısa Semptom Envanteri, C-Tipi Davranış Ölçeği- Duygu İfade Edememe Alt Ölçeği ve IND-COL Ölçeğini cevaplamıştır. Yaş, sosyoekonomik statü, duygu ifadesizliği, bireyselcilik, toplulukçuluk, depresyon, anksiyete, fobik anksiyete, obsesif-kompulsiflik, öfke, kişilerarası duyarlılık, paranoid düşünceler, psikotizm ve somatik semptomlar arasındaki ilişkinin ortaya çıkartılması için hiyerarşik çoklu regresyon analizi yürütülmüştür. Bulgular sonucunda artan yaş ile somatik semptomların arttığı tespit edilmiştir. Ek olarak, toplulukçu bir kültürden gelen katılımcıların somatik semptomları deneyimlemeye daha yatkın oldukları bulunmuştur. Obsesif kompulsiflik, anksiyete ve fobik anksiyetenin ise somatik semptomlarla pozitif bir ilişki içerisinde olduğu tespit edilmiştir. Subjektif somatik semptom deneyimlerinin anlaşılması için somatik semptom puanları anlamlı bir şekilde yüksek çıkan 10 katılımcı ile kısa görüşmeler yapılmıştır. Görüşmeler 35 ile 55 dakika arası sürmüştür. Tematik analiz yürütülmüş ve üç

ana tema belirlenmiştir. Bu üç ana tema; somatik semptomlar, algılanan sebepler ve baş etme yöntemleridir. Somatik semptomlardaki fark ayırt edilmeksizin, tüm katılımcılar algılanan sebep olarak stres ve çok düşünme olgularını ifade etmiştir. Bulgular alanyazındaki sonuçlar doğrultusunda tartışılmıştır. Güncel çalışmanın güçlü ve sınırlı yanları, klinik çıkarımları ve gelecek çalışmalar için önerilere de yer verilmiştir.

Anahtar Kelimeler: Somatik Semptomlar, Sosyoekonomik Statü, Kültür, Anksiyete, Obsesif Kompulsiflik

To individuals who are not friend with their emotions but willing to be…

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CHAPTER 1

INTRODUCTION

1.1. Somatic Symptoms

The term “somatization” was first introduced by Wilhelm Stekel in 1924 (Lipowski, 1988). He suggested that somatization is a *deep-seated neurosis* that has a psychological basis but causes a physical disorder (Woolfolk & Allen, 2006). Following Stekel, Menninger (1947) defined somatization as an expression of psychological distress that is unconscious rechanneling of repressed emotions into bodily symptoms (Lipowski, 1988). Put simply, somatization could be described as a tendency to experience psychological distress in the form of physical symptoms where there are no accounted for pathological findings (Çolak, 2014; Gupta, 2006; Gureje, Simon, Ustun & Goldberg; Kirmayer, 1984; Kirmayer, 1994; Lipowski,1997; Kirmayer & Young, 1998; Lipowski, 1988; Waitzkin & Magana, 1997). The purpose of the present concurrent mixed-method study was to reveal possible predictors of somatic symptoms and to investigate subjective conceptualization of those symptoms. The quantitative part was run by using scales to investigate possible predictors, while short interviews were done to reveal subjective conceptualization.

Over time, the definition of somatization has been changed by the American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders (DSM) (Dimsdale, et al., 2013; Haller, Cramer, Lauche, & Dobos, 2015; Hüsing, Löwe, & Toussant, 2018; Krause et al., 2019; Mayou, 2014; Piontek, Shedden-Mona, Gladigau, Kuby, & Löwe, 2018; Pohontsch et al., 2018). In DSM-IV (Bell, 1994), somatization was referred to as *somatization disorder,* under the disorder class *somatoform disorders,* with the following

criteria: “the individual needed to have a history of many physical complaints”, “beginning before the age of 30 years”, “occurring over a period of several years and resulting in treatment being sought or significant impairment in social, occupational, or other important areas of functioning”(American Psychiatric Association, 1994, p. 448). Individuals needed to have “four pain symptoms”, “two gastrointestinal symptoms”, “one sexual symptom”, and “one pseudoneurological symptom” that either cannot be fully explained within a known general medical condition or when there is a related general medical condition, the physical complaints or resulting social or occupational impairment are in excess of what would be expected from the history, physical examination, or laboratory findings (APA, 1994; Bell, 1994; Glasheen, Batts, & Kang, 2016). Additionally, the somatic symptoms should not be intentionally feigned or produced.

The definition and conceptualization of somatization disorder in DSM-IV was controversial (Dimsdale et al., 2013; Mayou, 2014). It has been pointed out that mind-body dualism and diagnosing patients were problematic. Regarding the mind-body dualism, it has been argued that differentiating symptoms as medically explained and medically unexplained would reinforce the argument that mind and body are separate, which is still controversial. Additionally, it has been pointed out that just because a disorder is not medically explained does not mean that it is a psychiatric disorder (Dismdale et al., 2014; Mayou, 2014). In terms of diagnostic problems, it has been argued that reliability of assessing whether or not there is a medical explanation for somatic symptoms is poor. Even medical doctors may not be a hundred percent sure whether or not somatic symptoms could be properly explained medically (Dimsdale et al., 2013).

Thus, because of the practical issues and controversial opinions on somatization disorder diagnosis, more changes were made to somatization and its diagnostic criteria in DSM-5 (APA, 2013). The term somatization was changed to *somatic symptom disorder*, under the disorder class *somatic symptom and related disorders*, and somatic symptom disorder did not need to be medically

unexplained (Dimsdale et al., 2013; Mayou, 2014). The current criteria for somatic symptom disorder in DSM-5 are:

a. having one or more symptoms that are distressing or result in disruptions in daily life,

b. excessive thoughts, feelings and behaviors related to the somatic symptoms such as either having disproportionate and persistent thoughts about the seriousness of one's symptoms, or a persistently high level of anxiety about health and/or symptoms, or spending excessive time and energy on the symptoms

c. or prolonged symptoms for more than six months (APA, 2013, p.311).

The major diagnosis in this diagnostic class, somatic symptom disorder, emphasizes diagnosis made on the basis of positive symptoms and signs (distressing somatic symptoms plus abnormal thoughts, feelings, and behaviors in response to these symptoms) rather than the absence of a medical explanation for somatic symptoms, unlike DSM-IV.

The present study uses the term "somatic symptoms" to depict what were mainly bodily sensations or symptoms, without being concerned with whether they were medically explained or not, which is congruent with the current definition of somatic symptoms in DSM-5. In the present study, the sample did not consist of the patient population (see *Method*). Therefore, none of the participants had somatic symptom disorder diagnosis. Thus, somatic symptoms in the present study were not necessarily prolonged for more than six months and were not necessarily associated with higher levels of anxiety and/or excessive thoughts. Yet, the term "somatic symptoms" that is used in the present study is in line with DSM-5 conceptualization, because symptoms were not differentiated based on whether or not they had medical explanations. Any bodily symptoms and sensations that participants experienced were included in the study as conceptualized in DSM-5.

1.1.1. Etiology of Somatic Symptoms

During the first emergence of the term somatization, psychodynamic view was predominant. Thus, the predictors of somatization were explained on the basis of the psychodynamic view. It was assumed that somatization is a result of psychological distress that is manifested by some physical symptoms as a psychogenic defense mechanism (Kirmayer & Young, 1998; Waitzkin & Magana, 1997). According to the psychodynamic perspective, the psychosocial conflict has been transformed into bodily distress in order to protect the individual from facing the psychological conflict (Kirmayer, 1984; Lipowski, 1988). Thus, it was argued that somatic symptoms were predicted by inner psychological distress and conflict.

However, more current research has revealed that there is no single theory that can adequately explain somatic symptoms (Kellner, 1990). There have been attempts to explain somatic symptoms through family history, genetics, behavioral and cognitive behavioral perspectives (Nolen-Hoeksema, 2011)., in addition to the psychodynamic perspective that was noted above. Family history studies of somatization have revealed that somatic symptoms run in families (Nolen-Hoeksema, 2011). Female relatives of individuals with somatic symptoms were observed to suffer from anxiety and depression, while male relatives were revealed to have higher than usual rates of alcoholism and antisocial personality disorder (Nolen-Hoeksema, 2011). However, whether the somatic symptoms that run in the family were transmitted through genes is still unclear. A study with 3,400 twins could not determine whether genetics or shared environments are responsible for somatic symptoms. Linked to this phenomenon, in a behavioral perspective, it was argued that parents with somatic symptoms tend to neglect their children more often, which may cause children to learn that the only way to receive care and attention is by being ill (Nolen-Hoeksema, 2011). The behavioral perspective of somatic symptoms also sheds light on the attempt to determine the reinforcements individuals receive for their symptoms. This argument forms primary and secondary gain perspective of

somatic symptoms. In terms of primary gain, it was argued that somatic symptoms may prevent an individual from having to be exposed to the phenomenon (mostly an emotion), which is thus avoided by the individual (Nolen-Hoesekma, 2011). For instance, the individual may feel guilty about not being able to perform a task at work but having bodily symptoms (eg. an extreme headache which would prevent him/her from performing the task) would justify the inability and the guilt would diminish. A secondary gain is suggested as external benefits that may be derived as a result of the somatic symptoms. For instance, an individual may be allowed to miss work because of his/her extreme headache. As understood, both primary and secondary gains are reinforcements of somatic symptoms (Nolen-Hoeksema, 2011). In the same manner, the cognitive behavioral perspective suggests that healthy behaviors should be reinforced rather than the somatic symptoms. In other words, cognitive behavioral therapies should focus on helping these individuals learn to interpret their bodily symptoms appropriately and to avoid catastrophizing those symptoms (Nolen-Hoeksema, 2011).

Kirmayer and Taillefer (1997) suggested a comprehensive model for somatic symptoms. The model consisted of both biological and psychosocial factors that may combine to lead to somatic symptoms. The model can be seen in Figure 1. According to this model, social conditions (i.e family, work conditions, care providers etc.), previous illness experience and personality would contribute to somatic symptoms. Social response to somatic symptoms would contribute to social distress, avoidance and disability, which may affect the physical disturbance. Similarly, social response to somatic symptoms may also contribute to an attribution of sensations to illness which would, in turn, cause illness worry, catastrophizing symptoms and demoralization, that may also contribute to increased emotional arousal. Increased emotional arousal may cause increased attention to the body, which would also contribute to an attribution of sensations to the illness, in turn. It was also suggested that interpersonal conflict, emotional distress, psychiatric disorder, stress and/or trauma would contribute to emotional arousal, and thus physiological disturbance and attention to the body. Medical

illness and everyday physical perturbations would also contribute to physical disturbance which would, in turn, increase attention to the body. Increased attention to the body would play a role in the attribution of sensations to the illness and thus, illness worry, catastrophizing symptoms and demoralization that may also contribute to increased emotional arousal, repeatedly (Nolen-Hoeksema, 2011). Thus, it can be understood that Kirmayer and Taillefer (1997) aimed to conceptualize somatic symptoms in a more comprehensive way.

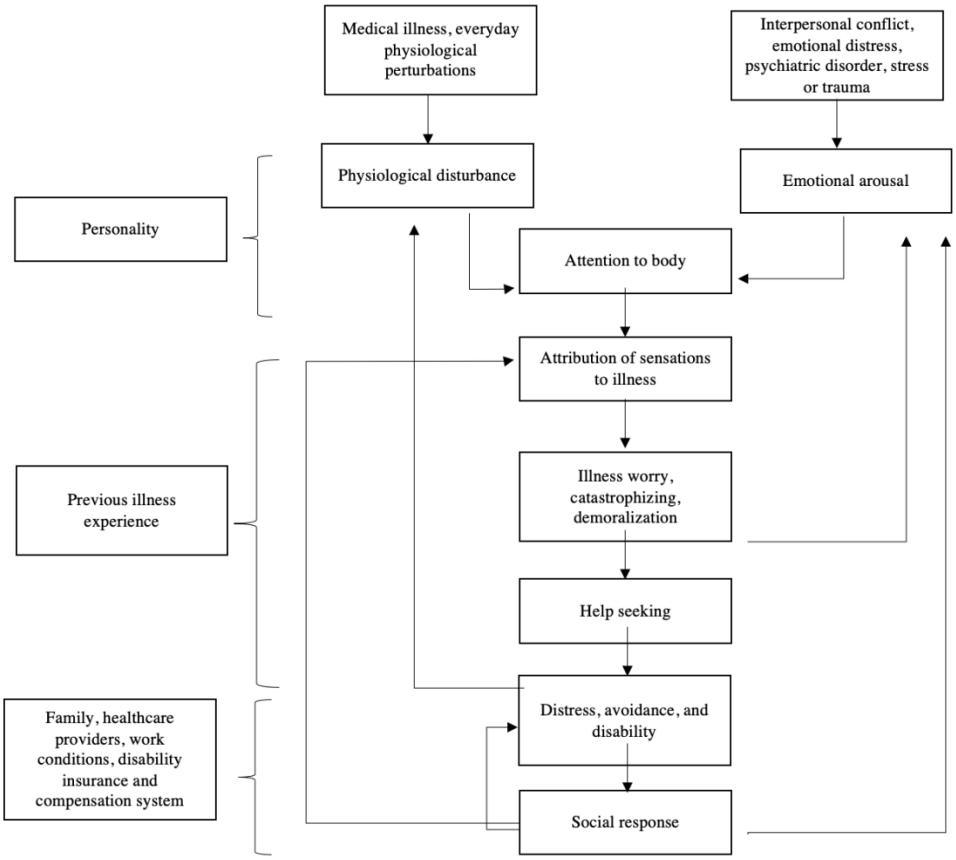

Figure 1. A Model For Somatic Symptoms (Kirmayer & Taillefer, 1997).

Nowadays, somatic symptoms have been explained as a complex phenomenon whose manifestation and conceptualization differ among individuals (Kellner, 1990). It has been argued that somatic symptoms affected by the interaction between various factors. Thus, currently, no single etiological theory for somatic symptoms was agreed on (Kellner, 1990). Previous quantitative research

suggested that demographic variables (eg. age, gender, and socioeconomic status), certain personality traits (such as emotional non-expressiveness), psychosocial factors (eg. psychological disorders such as anxiety and depression, perceived stress and lack of perceived emotional support), and cultural variables (individualism and collectivism) predict somatic symptoms (Adler & Ostrove, 1999; Barsky et al., 2001; Fournier et al., 2002; Gureje et al., 1997; Hernandez & Kelner, 1992; Huurre et al., 2005; Marshall & Funch, 2013; Nummi et al., 2017; Ogden, 2004; Oyserman et al., 2002; Prospero, 2007; Romero-Acosto et al., 2013). Detailed information regarding previous study findings and theoretical background can be found in following sections in details.

To put it simple, it has been theorized that demographic variables play crucial role on somatic symptoms (Adler & Ostrove, 1999; Barsky et al., 2001; Fournier et al., 2002; Gureje et al., 1997) and previous studies suggested that demographic variables specifically being female, having older age and lower socioeconomic status tend to increase somatic symptoms experiences. In addition to that, having an inability to express emotions (i.e emotional non-expressiveness) was also showed to increase the risk of somatic symptom experience (Bozo, Yılmaz, & Tathan, 2012; Riggio & Riggio, 2002). Additionally, certain psychosocial factors were also found to be linked with somatic symptoms (Huurre et al., 2005; Marshall & Funch, 2013; Nummi et al., 2017; Ogden, 2004). Specifically, certain psychological disorders such as depression and anxiety have been releaved to be associated with higher somatic symptoms (Gureje et al., 1997). Cultural factors were also assessed in previous studies in order to understand relevant role in somatic symptomatology (Oyserman et al., 2002; Prospero, 2007; Romero-Acosto et al., 2013). It was found that individuals from collectivistic cultures where ingroup bonds were more dominant tend to have more somatic symptoms because of a possible shame due to symptoms and/or possible fear of labelling as “mentally ill” (Gureje et al., 1997; Kuruvilla & Jacob, 2012). As understood different quantitative method studies revealed different variables of somatic symptoms and none of the studies revealed a

comprehensive finding that includes demographic factors, personality traits, psychosocial factors and cultural variables.

Qualitative method researchs were also run in order to reveal variables of somatic symptoms however there are limited number of current qualitative research on somatic symptoms. This limited research has revealed that somatic symptoms could be a manifestation of psychosocial stress (Kuruvilla & Jacob, 2012; Raguram, Weiss, Chonnabosavanna, & Devins, 1996) and associated with negative emotions (Lanzara, Scipioni, & Conti, 2019). In other words, it has been theorized that individuals who suffer from psychosical distress tend to have more negative emotions and in turn, more somatic symptoms. It was argued that individuals who have higher levels of perceived stress tend to experience emotional and physical reactions toward stressors (Albert, Tiatri & Basaria, 2020). The emotional and physical reactions toward stressors have negative components such as anxiety, depressed mood, increased cortisol levels and heart rate, muscle tension etc. Thus, it was pointed out that perceived stress results in increased physical sensations which was found to be associated with more somatic symptoms experience (Albert et al., 2020). Additionally, qualitative studies have also shown that patients with somatic symptoms had difficulties in verbalizing their emotions (Aiarzaguena, Gaminde, Clemente, & Farnido, 2013; Wileman, May, & Chew-Graham, 2002). However, findings remained unclear whether individuals with somatic symptoms verbalize their emotions less because of a fear of being stigmatized as "mentally ill" especially in collectivistic cultures (Baarnheilm & Ekblad, 2000), or because of being unable to express their emotions explicitly. Thus, it can be concluded that previous qualitative studies have been also inadequate to draw a comprehensive framework of somatic symptomatology.

In this manner, the present study was aimed to show the comprehensive framework of somatic symptomatology which would shed light onto etiology of symptoms and symptom experience as well. The present study is based on mixed design research that aimed to investigate possible predictors of somatic

symptoms and participants' subjective conceptualization of those symptoms. Possible predictors of somatic symptoms were assessed by using scales and short interviews which were run in order to reveal the participants' conceptualization of symptoms. As previous studies suggested, demographic variables (age, gender, socioeconomic status), emotional non-expressiveness, cultural variables, and psychological disorders were assessed as predictors of somatic symptoms.

1.2. Demographic Variables and Somatic Symptoms

1.2.1. Age and Somatic Symptoms

Previous studies revealed that there is an association between increased age and somatic symptoms (Beutel et al., 2020; Bohman et al., 2012; Casper, Redmond JR, & Katz, 1985; Cohen et al., 2013; Ginsburg, Riddle, & Davies, 2006; Li, Borgfeldt, Samsioe, Lidfeldt, & Nerbrand, 2005; Nummi, Virtanen, Leino-Arjos, & Hammorstörm, 2017; Romero-Acosto et al., 2013). The association between age and somatic symptoms showed itself, beginning from childhood. A comparison study for somatic symptoms with children at different ages ($\overline{x}$ age = 10.8, range was 6 to 17 years old) who suffer from anxiety disorder revealed that older children reported more frequent somatic symptoms and the most commonly reported symptoms were stomach ache, blushing, restlessness, palpitation, muscle tension, sweating, and shaking (Ginsburg et al. 2006). Similarly, in a Spanish study which investigated the somatic symptoms of children and adolescents (N = 2358, age range was 8 to 16 years old) found that 52.1% of adolescents reported somatic symptoms, whilst only 26.8% of children reported them. Headache, stomach ache and muscle pain were the most commonly reported somatic symptoms (Romero-Acosto et al., 2013).

Longitudinal studies also revealed that somatic symptoms tend to increase with age (Beutel et al., 2020; Bohman et al., 2012; Nummi et al., 2017). In a 15-year long study, Swedish adolescents (aged 16 and 17 years old) with and without somatic symptoms were compared over time. Adolescents with somatic

symptoms tended to have more suicide attempts, bipolar disorders, and psychoticism, and their somatic symptoms increased in time compared to adolescents without functional somatic symptoms. Similarly, in another study, the somatic symptoms of a hundred Swedes were screened at ages 16, 18, 21, 30, and 42 (Nummi et al., 2017). It was revealed that there was an increase in somatic symptoms from adolescence to middle age. Additionally, a German longitudinal study (from 1975 to 2013) showed that somatic symptoms had a tendency to increase at higher ages when somatic symptoms were assessed between ages 18 and 60 (Beutel et al., 2020).

However, whether the increased frequency of somatic symptoms was only because of the increase in age was debated (Casper et al., 1985; Li et al., 2005; Nummi et al., 2017). The increased somatic symptoms could have resulted from a combination of different variables, but not only due to an increase in age. Studies showed that individuals with major depressive disorder (MDD) suffer more from somatic symptoms with increased age when the incidence and the severity of the psychological disorder increases. Similarly, middle-aged women tend to experience more somatic symptoms if they are unemployed, overweight, less-educated, not engaging in exercise, or suffering from a cardiovascular disorder (Li et al., 2005). Additionally, it was revealed that increased age is associated with more somatic symptoms when the individuals are female, have a lower income, and experience a higher number of cancer related problems (Cohen, 2013).

Thus, it can be concluded that age was shown to have an association with somatic symptoms. Studies showed that with increased age, somatic symptoms tend to increase. Researchers have also been interested in different demographics, such as gender, besides age, that might be associated with somatic symptoms. Therefore, the present study included age as a predictive variable in addition to other variables such as gender.

1.2.2. Gender and Somatic Symptoms

Previous studies are inconsistent as to whether gender is a predictor of somatic symptoms or not (Barsky, Klerman, & Latham, 1990; Barsky, Peekno, & Borus, 2001; Barsky, Wyshak, & Klerman, 1986; Davis, 1981; Hernandez & Kelner, 1992; Macintyre, 1993; Marshall & Funch, 1986; Verbrugge & Ascione, 1987). On the one hand, some of the studies revealed gender differences in somatic symptoms (Beutel et al., 2020; Barsky et al., 2001; Kronke & Mangelsdorff, 1989; Neitzert, Davis, & Kennedy, 1997; Romero-Acosto et al., 2013; Spitzer, 1998; Unruh, 1996). In a study that was conducted with 2,358 children aged from 8 to 16 years, girls older than 13 years had more somatic symptoms than boys. Yet, there were no gender differences in rates of somatic symptoms until age 13 (Romero-Acosto et al., 2013). Similarly, after age 18, German women were found to have more somatic symptoms than men (Beutel et al., 2020).

A systematic review of 175 studies that were conducted from 1966 to 1999 showed that women tend to experience somatic symptoms more than men, right after a diagnosis of any medical condition (Barsky et al., 2001). Similarly, women reported more bodily distress, and more numerous, more intense, and more frequent somatic symptoms than men (Barsky et al., 2001). A medical comorbidity, specifically comorbidity of a psychiatric disorder or reproductive malfunctioning, increased the risk of experiencing somatic symptoms in women rather than men (Barsky et al., 2001; Kroenke & Mangelsdorff, 1989; Kroenke & Spitzer, 1998). Thus, it was generally revealed that gender plays a role in somatic symptoms when there is a medical condition. Women with a medical condition tend to experience more somatic symptoms than men with a medical condition (Kroenke & Mangelsdorff, 1989; Kroenke & Spitzer, 1998).

On the other hand, several studies have revealed no gender differences in somatic symptoms, even when it was comorbid with medical conditions (Macintyre, 1993; Marshall & Funch, 1986). For instance, no gender differences were found for somatic symptoms in cancer patients (Marshall & Funch, 1993).

Similarly, no gender differences were revealed in somatic symptoms when the participants were experiencing the common cold (Macintyre, 1993). Additionally, in a cross-cultural study of the World Health Organization (Gureje et al., 1997), conducted with patients presenting to a primary care center, gender did not predict somatization in different countries.

In a similar manner, findings were inconsistent regarding the relationship between gender and somatization in non-clinical samples (Barsky et al., 1990; Barsky et al., 2001; Barsky et al., 1986; Davis, 1981; Fowler-Kelly & Lanser, 1991; Hernandez & Kelner, 1992; Marshall & Funch, 1986; Kirmayer & Robbins, 1991; Macintyre, 1993; Neitzert et al., 1997; Unruh, 1996; Verbrugge & Ascione, 1987). Barsky and colleagues revealed that in a non-patient sample, women reported more somatic symptoms than men (Barsky et al., 2001). Those somatic symptoms were constipation, nausea, vomiting, headache, fatigue, dizziness, palpitations, and insomnia (Neitzert et al., 1997; Unruh, 1996). Additionally, women reported more severe and more frequent pain, and pain in more sites compared to men (Barsky et al., 2001; Neitzert et al., 1997; Unruh, 1996). It was also revealed that women tend to experience somatic symptoms for a longer duration than men (Barsky et al., 1991; Verbrugge & Ascione, 1987). On the other hand, according to the results of other studies conducted with non-patient samples, gender did not predict somatic symptoms (Barsky et al., 1986; Barsky et al., 1990; Barsky et al., 2001; David, 1981; Fearon, McGrath & Achat, 1996; Fowler-Kelly & Lander, 1991; Hernandez & Kelner, 1992; Kirmayer & Robins, 1991). In a non-patient sample, there was no difference in terms of manifesting hypochondrial worry between women and men (Barsky et al., 1990; Hernandez & Kelner, 1992). Additionally, no gender differences were found for somatic symptoms when adolescent girls and boys were experiencing venipuncture (Fowler-Kelly & Lander, 1991). Similarly, children at ages 3 to 12 years old did not show any gender difference when experiencing pain (Fearon et al., 1996).

In summary, studies that focused on the relationship between gender and somatic symptoms showed inconsistent results for both clinical and non-clinical samples. Thus, it cannot be generally concluded whether gender is a predictor of somatic symptoms or not. For this reason, the present study aimed to reveal whether gender would be one of the predictors of somatic symptoms in a non-patient sample and, thus, it was also included in the study as one of the possible predictors. In addition to age and gender as possible demographic predictors of somatic symptoms, researchers have also been interested in socioeconomic status as a possible predictor of somatic symptoms.

1.2.3. Socioeconomic Status and Somatic Symptoms

Socioeconomic status (SES) has been mostly assessed by level of income and years of education (Escobar, Burnam, & Korno, 1987). Studies have shown that individuals with higher socioeconomic levels have better health (Adler & Ostrove, 1999). SES is one of the determinants of somatic symptoms across various countries (Angel & Guarnaccia, 1989; Escobar et al., 1987; Obimakinde, Ladipo, & Irobor, 2015; San Sebastian, Hammarström, & Gustafsson, 2015). In a 26-year longitudinal study that was run with 1,001 Swedish participants, it was revealed that the inequalities between blue-collar and white-collar groups had an impact on somatic symptoms. The blue-collar group experienced more somatic symptoms than the white-collar group (San Sebastian et al., 2015). Similarly, in a study with Nigerian participants (N = 120) who had been diagnosed with somatoform disorder, it was found that participants who were living in a polygamous family and earning below a dollar a day experienced more severe somatoform disorder than participants with higher SES (Obimakinde et al., 2015). A similar finding was seen as a result of a study that was run with 3,132 American participants in Los Angeles (Escobar et al., 1987). Participants with lower SES were found to somatize more than participants with higher SES. The same was also true for Hispanics (Angel & Guarnaccia, 1989).

The number of years of education has also been known to play a role in somatic symptoms (Chandler et al., 2019; Gureje et al., 1997; Huurre, Rankonen, Kamulainen, & Aro, 2005; Swartz, Landerman, Blazer, & George, 1989). Individuals who had fewer years of education and were living in urban areas tended to have a higher risk of somatic symptoms (Swartz et al., 1989). Fewer than five years of formal education was related to an increased risk of somatic symptoms (Chandler et al., 2012; Gureje et al., 1997). These findings were also true for Turkey (Gureje et al., 1997; Güz et al., 2004).

Moreover, it was found that SES is both the cause and the result of somatic symptoms (Huurre et al., 2005). A longitudinal study was run in Finland to investigate differences in psychosomatic symptoms according to SES, in adolescence, early adulthood, and adulthood, and to examine whether lower SES leads to a higher level of symptoms, or a higher level of symptoms to lower SES, or both. The SES and somatic symptoms of the participants were assessed at ages 16, 22, and 32 years. It was revealed that participants with lower SES tended to experience more somatic symptoms at age 16. Additionally, when their SES decreased over time, the somatic symptoms tended to increase. Individuals who have lower SES tended to experience more somatic symptoms and similarly, individuals who experience more somatic symptoms tend to have lower SES.

It can be concluded that SES is related to somatic symptoms. Studies showed that people with lower SES tend to have higher levels of somatic symptoms, while the opposite is true for people with higher SES. Besides demographic variables, such as age, gender and SES, expressing emotions in either verbal or non-verbal ways was also noted as a possible predictor of somatic symptoms.

1.3. Emotional Non-Expressiveness and Somatic Symptoms

Emotional expressiveness is an ability to communicate an individual's own emotions. It has been conceptualized in two ways (Riggio, 1986; Riggio &

Riggio, 2001; Riggio & Riggio, 2002). The first is the verbal way of expressing one's own emotions and the second is the non-verbal way, including facial expressions, gestures and non-verbal movements that are used to communicate what an individual feels (Friedman, Prince, Riggio, & DiMatteo, 1980; Riggio & Riggio, 2002). Recently, emotional expressiveness has been evaluated as a component of personality traits (Bozo et al., 2012; Ogden, 2004). *Type-C Personality Trait* has been defined as passiveness, calmness, inability to help oneself, self-sacrifice and emotional non-expressiveness (Bozo et al., 2012; Ogden, 2004). Researchers found that emotional non-expressiveness is one of the risk factors for life-threatening diseases such as breast cancer (Bleiker, van der Ploeg, Hendriks, & Ader, 1996; Bozo et al., 2012; Eysenck, 1994; Temoshok, 1987).

Several studies that were conducted with clinical samples revealed the role of emotional non-expressiveness in physical disorders. Reduced engagement in the cognitive content of emotions has been found to be linked to emotional non-expressiveness as well as somatic symptoms (Okur-Güney et al., 2019; Sattel, Witthöft, & Henningsen, 2019). Similarly, three different studies revealed that emotional non-expressiveness and elevated control reactions for sadness and anxiety are related to psychogenic non-epileptic seizures or functional neurological symptoms (Gul & Ahmad, 2014; Steffen et al., 2015; Urbanek, Harvey, McGowan, & Argawal, 2014). Other studies revealed that emotional non-expressiveness and emotional suppression are associated with symptoms in fibromyalgia patients (Erkic et al., 2018; van Middendorp et al., 2008). Moreover, in an interview-based qualitative study, patients with somatoform disorders reported a lower capacity of non-verbal emotional expressiveness (Waller & Scheidt, 2004). Similarly, irritable bowel syndrome patients expressed fewer depressive and anxiety symptoms but tended to suffer more from somatic symptoms. When depression and anxiety were controlled, somatic symptoms of patients significantly decreased (Fournier et al., 2018).

As may be understood, previous studies that focused on the relationship between emotional non-expressiveness and somatic symptoms were run with patient populations. The participants were either patients with a diagnosis of somatization disorder or patients with a diagnosis of another medical condition. Thus, it can be concluded that emotional non-expressiveness is linked to somatic symptoms among clinical populations, as previous studies showed. Yet, its link to somatic symptoms has not been investigated in a non-patient sample. Therefore, the purpose of the current study was to investigate the link between emotional non-expressiveness and somatic symptoms in a non-clinical sample. Additionally, the present study aimed to show possible relationships between psychological disorders and somatic symptoms.

1.4. Psychological Disorders and Somatic Symptoms

Previous studies suggested that major depressive disorder (MDD) is the most somatized psychological disorder (Gureje et al., 1997; Russo et al., 1994; Simms, Prisciandaro, Krueger, & Goldberg, 2012). Sixty-nine percent of individuals with major depressive disorder (*N*= 1146) in 14 countries experienced somatic symptoms, and 50% of those individuals reported at least two somatic symptoms (Simon, Vankorff, Piccinelli, Fullerton, & Ormel, 1999). Moreover, both depressive and anxiety disorders were frequently seen to co-occur with somatic symptoms, but not dysthymic disorder (Bekhuis, Boschloo, Rosmalen & Schoevers, 2015; Sayar, Kirmayer, & Taillefer, 2005). Similar comorbidity was also observed in children and adolescents. It was found that there was a strong correlation between somatic symptoms and self-reported anxiety and depression in children (Beck, 2008). Moreover, longitudinal studies showed that self-reported anxiety and depression were linked with somatic symptoms (Beck, 2008). Somatic symptoms were also suggested as expressions of underlying anxiety and depression in anxious/depressed school refuser adolescents (Bernstein et al., 1997). The already mentioned studies (Beck, 2008; Bekhuis et al., 2015; Gureje et al., 1997; Russo et al., 1994; Sayar et al., 2005;

Simms et al., 2012; Simon et al., 1999) also revealed that somatic symptoms had the strongest association with depression, followed by anxiety.

Anxiety was one of the predictors of somatic symptoms (Groen, van Gils, Emerencia, Bos, & Rosmalen, 2020). Individuals with generalized anxiety disorder (GAD) tended to have more somatic symptoms than individuals who did not have generalized anxiety disorder (Wetherell et al., 2009). It was also found that generalized anxiety disorder is frequently comorbid with somatic symptoms. Panic disorder was found to be a risk factor for experiencing somatic symptoms (Brown, Golding, & Smith, 1990). Fifty-nine percent of individuals with panic disorder experienced somatic complaints such as chest pain, gastrointestinal symptoms, headaches and dizziness (Katon, 1994). Additionally, there was a higher correlation between anxiety and somatic symptoms, even in a non-patient population (Malorqui-Bogue et al., 2016). It was shown that not only do individuals with anxiety disorders experience somatic symptoms but also that individuals who have anxious thoughts and feelings without having any anxiety disorder diagnosis tended to have somatic symptoms as well.

In addition to depressive disorders, panic disorder, and generalized anxiety disorder, somatic symptoms also have comorbidity with phobic disorders and obsessive-compulsive disorder (Brown et al., 1990). Individuals who had unexplained somatic complaints had comorbidity with phobic disorders and obsessive-compulsive disorder. Similarly, individuals with body dysmorphic disorder and obsessive-compulsive symptoms had a tendency to experience somatic symptoms (Biby, 1998; Philips, Siniscalchi & McElroy, 2004).

Moreover, individuals who experienced abuse and trauma developed anger and hostility, which increased their tendency to experience somatic symptoms in turn (Lockner, Gudleski, & Blanchard, 2004; Ursano, Fullerton, Kao, & Bhartiya, 1995). In a similar manner, male victims of partner violence experienced somatic symptoms (Prospero, 2007).

Few studies focused on the relationship between psychoticism and somatic symptoms. The limited number of studies were controversial as well. According to some studies that were conducted based on the psychodynamic perspective, a progressive disorganization can be linked with somatic symptoms (Marty, 1968). On the other hand, other studies revealed that somatic symptoms were linked with paranoid ideation and psychoticism in conversion disorders, but not in somatization (Güz et al., 2004).

In summary, it can be concluded that depressive disorders are highly linked with somatic symptoms. However, previous studies were conducted with individuals who had major depressive disorder. Yet, individuals who do not have a major depressive disorder diagnosis may not necessarily experience somatic symptoms, even if they have depressive thoughts and feelings. Thus, the present study aimed to reveal the link between depressive symptoms and somatic symptoms in a non-clinical sample.

Moreover, as noted above, studies did not show a difference between the clinical and non-clinical population in terms of the relationship between anxiety and somatic symptoms. Anxiety tends to be comorbid with somatic symptoms, whether individuals have anxiety disorder or only have anxious thoughts and feelings. Thus, anxiety symptoms were measured in the present study to reveal their link with somatic symptoms. Even though studies revealed that certain psychological disorders have a higher correlation with somatic symptoms, researchers have also been interested in the effects of culture on psychological disorders and their somatic manifestations. Therefore, the present study also aimed to assess the effects of the cultural component on somatic symptoms.

1.5. Cultural Variables and The Effect of Culture on Psychological Disorders

1.5.1. Individualism and Collectivism

Individualism has been defined as a focus on rights above duties, a concern for the immediate family, an emphasis on personal autonomy and self-fulfillment, and basing one's personal identity on personal accomplishments (Hofstede, 1980). Following Hofstede, Waterman (1984) mentioned *normative individualism*, focusing on personal responsibility and freedom of choice, living up to one's potential, and respecting the integrity of others. The definition of individualism has focused on personal goals, personal uniqueness and personal control (Oyserman, Coon, & Kemmelmeier, 2002). Individualism has also been linked to being open to emotional expressiveness and attainment of one's personal goals (Diener & Diener, 1995; Markus & Kitayama, 1991; Oyserman et al., 2002). Additionally, individualism has been connected to personal judgment and reasoning, rather than society-driven judgment and reasoning (Oyserman et al., 2002). Individualistic people tend to use social bonds and relationships for their own sake. Stated differently, individualistic people can leave behind their social bonds and relationships when their personal goals shift (Kağıtçıbaşı, 1997; Oyserman, 1993; Oyserman et al., 2002).

Collectivism has been defined as mutual obligations and emphasis on group bonds (Oyserman et al., 2002). In collectivistic societies, it is important to form society-units, to share common goals, common values and an in-group fate, rather than having personal goals, a personal fate and personal values (Oyserman et al., 2002; Triandis, 1995). The groups could include family, clan, ethnic or religious groups. (Oyserman et al., 2002). Group membership is essential for forming an identity (Hofstede, 1980). Life satisfaction depends on successfully carrying out social roles and mutual obligations, while emotional expression could be sacrificed for those purposes easily (Markus & Kitayama, 1991; Oyserman et al., 2002).

Hofstede (1980) argued that individualism and collectivism are two points on a spectrum, and they are opposites of each other. Thus, one could not have individualistic and collectivistic features at the same time. Yet, current studies have revealed that this is not true (Oyserman & Lee, 2008; Öztürk, Kılıçaslan-Gökoğlu, & Kütahnecioğlu-İnan, 2019; Taras et al., 2014). Kağıtçıbaşı (1996) argued that individualism and collectivism are not opposite ends on a continuum, but are independent concepts that need to be evaluated separately. Similarly, studies that were conducted in Turkey revealed that individualism and collectivism are not on the same spectrum, but are separate concepts (Li & Aksoy, 2007). In other words, individuals may have both individualistic and collectivist features that appear in different situations (Oyserman & Lee, 2008). Individuals may have both individualistic and collectivistic thoughts, attitudes and behaviors depending on the context (Öztürk et al., 2019). Thus, current instruments that measure individualism and collectivism tend to have items that measure both individualistic and collectivistic patterns (Oyserman et al., 2002; Oyserman et al., 2005; Öztürk et al., 2019).

1.5.2. Effect of Culture on Psychological Disorders

Culture should be taken into account while assessing and conceptualizing psychological disorders. Mental health professionals have faced the reality that psychological disorders are defined in relation to cultural, social, and familial norms and values (APA, 2013). Culture provides interpretive frameworks which shape the experience and expression of symptoms, signs and behaviors that could be the criteria for diagnosis (Kirmayer & Young, 1994; Kleinman, 1988). The thresholds of tolerance for specific symptoms and behaviors differ across cultures, social settings, and families. The judgment of a behavior requiring clinical attention depends on cultural norms that are internalized by the individual and applied by significant others. Cultural meanings, habits, and traditions can also contribute to either stigma or support in social responses to the psychological disorder (Leff, 1989; Karasz, 2005; Yeşilbaş, 2008).

In DSM-5, three cultural concepts were suggested: *cultural syndrome*, *cultural idioms of distress* and *cultural explanation or perceived cause.* Cultural syndrome is a cluster of co-occuring, relatively invariant symptoms found in a specific cultural group, community, and/or context. Thus, the syndrome may or may not be recognized as a disorder within the culture. For example, *Latah* is a condition of hyper-startling found in the Middle East and South-East Asia, and is found mainly in adult women. The afflicted have a severe reaction to being surprised, in which they lose control of their behavior, mimic the speech and actions of those around them, and sometimes obey any commands given to them. The cultural term "idioms of distress" is a linguistic term or way of talking about suffering among individuals of a cultural group. This phenomenon was previously introduced by Nichter in 1981 (Cork, Kaiser, & White, 2019), followed by Kleinman and Kleinman (1985) in the *idioms of distress* thesis. In other words, cultural idioms of distress are alternative modes of expressing distress and they indicate manifestations of distress in relation to personal and cultural meaning (Desai & Chaturvedi, 2017). Those alternative modes are suggested to have social implications and are readily accepted by society. Thus, it can also be said that cultural idioms of distress are considered as adaptive responses in circumstances where other modes of expression fail to communicate distress adequately or to provide appropriate coping strategies (Desai & Chaturvedi, 2017; Keyes & Ryff, 2003; Kleinman & Kleinman, 1985).

Somatization was suggested as an idiom of distress and it was argued that patients who have somatic symptoms are individuals with psychosocial conflicts and emotional problems, who express their distress through bodily symptoms (Katon, Ries, & Kleinman, 1984; Parsons & Wakeley, 1991). Idioms of distress are considered as adaptive responses in circumstances where other modes of expression fail to communicate distress adequately (Desai & Chaturvedi, 2017). According to this thesis, interdependent individuals within collectivistic cultures tend to convey their emotional distress as physical symptoms, which is a safer way to express their distress that is understood by recipients (Keyes & Ryff, 2003). It has been suggested that individuals in collectivistic cultures may not be

able to explicitly and verbally express their emotional distress because of a possible risk of labelling (Desai & Chaturvedi, 2017). Therefore, individuals with emotional distress convey it as physical symptoms, which would be adaptive and more acceptable (Desai & Chaturvedi, 2017). For example, in a cross-cultural qualitative study, Turkish and Swedish depressive women were interviewed, in order to understand how they labeled their depressive symptoms (Baarnheilm & Ekblad, 2000). It was observed that Turkish women tended to label psychological distress as if it were a physical symptom such as *heart worry* (*yürek kalkması*). They disagreed with the psychiatric attribution because they did not consider themselves to be mentally ill. Turkish women associated psychiatric diagnoses with a shameful loss of control. Even though they were open to talk about their distress, they were resistant to a psychiatric attribution. On the contrary, Swedish women were not hesitant with regards to a psychiatric attribution and they did not attribute psychological distress to a physical pathology. It was concluded that having collectivistic cultural values could result in stigma toward mental illness, which would cause individuals to attribute symptoms to a physical pathology because of the societal disapproval of psychosocial distress. It has been argued that individuals in collectivistic cultures may be easily labelled and become a target of discrimination because of psychological distress (Desai & Chaturvedi, 2017; Keyes & Ryff, 2003). Thus, as the idioms of distress thesis suggested, collectivistic individuals express emotional distress in a safer and more acceptable way which is through bodily sensations.

Similarly, studies revealed that people with collectivistic backgrounds tend to have more somatic symptoms than people with individualistic backgrounds, and the suggested reason was a possible stigmatization of being mentally ill and rejection within the culture (Chang et al., 2017; Keyes & Ryff, 2003; Mojaverian et al., 2012; Reich et al., 2015; Zhou et al., 2011). In a cross-cultural comparison study, the somatic symptom frequency was compared between Chinese (n = 175) and Euro-Canadian outpatients (n = 107) with depression (Ryder et al., 2008). Chinese outpatients tended to report more somatic symptoms, while Euro-

Canadians tended to report more psychological symptoms. The authors stated that the reason for the cross-cultural difference was that psychological disorders were seen as a weakness of character in China. Thus, Chinese people cannot report psychological symptoms frequently because of a possible stigmatization. The same was true for anxiety (Zhou et al., 2011). Anxious Han Chinese (n = 154) outpatients tended to report more somatic symptoms, while anxious Euro-Canadian (n = 79) outpatients tended to report more psychological symptoms (Zhou et al., 2011).

Similar findings were also true for the Turkish population. Researchers found that 87% of patients experience physical symptoms as the core symptoms of depression (Küey & Güleç, 1995; Yeşilbaş, 2008). The most common symptoms of depression were insomnia and tightness (*sıkıntı*), which are not the most common core symptoms in other cultures (Küey & Güleç, 1995). A similar finding was also revealed in a cross-cultural study (Mirdal, 1985). The core symptoms of depression were compared between Turkish migrant women and non-immigrant women in Denmark (Mirdal, 1985). It was found that tightness in the chest was again the most frequently reported core symptom of depression among Turkish immigrant women. The reason was suggested as the fact that non-physical symptoms of depression would not be accepted within the Turkish culture. How patients express their psychological conflict is also linked with how they explain the underlying reasons for a disorder.

Cultural explanation or perceived cause is a label, attribution or feature of an explanatory model that provides a culturally conceived etiology or cause for symptoms, disorder, or distress. For example, in a cross-cultural qualitative study, South Asians and European Americans in New York were interviewed, in order to reveal the way they interpreted their depression (Karasz, 2005). It was revealed that South Asians perceived depression as a result of thinking too much, while European Americans interpreted it as a result of hormonal imbalance (Karasz, 2005). Additionally, South Asians labeled depression as a life-long problem, and mentioned that a physical illness could emerge as a consequence of

it, while European Americans labeled it as a temporary disorder because of current hormonal imbalance. South Asians engaged in self-help as the best management of it, while European Americans preferred to consult a psychiatrist. Thus, it can be concluded that cultural explanation of a psychological disorder could also have an impact on help-seeking behaviors, as was also mentioned in the DSM-5.

The cross-cultural studies that focused on help-seeking behaviors revealed that culture has a crucial role in help-seeking attitudes and willingness to seek psychological treatment (Arnault, 2009; Chang, Jetten, Cruwys, & Haslam, 2017; Karanci, 1986; Lindinger-Sternart, 2014; Mojaverian, Hashimoto, & Kim, 2012; Reich, Bockel, & Mewes, 2015). In one study, Turkish immigrant inpatients living in Germany and inpatients without a migration background (*N* =100), suffering from depressive disorder, somatoform disorder, and/or adjustment disorder were interviewed to reveal their perceived reasons for symptoms and motivation for receiving psychotherapy (Reich et al., 2015). Their motivation for having psychotherapy was also assessed through Psychotherapeutic Treatment Expectations and Openness to Psychotherapy Scales. The Turkish immigrant inpatients believed that the cause of illness was supernatural and/or fatalistic (i.e "God's will", "evil spirits", "curse", "bad luck", "destiny" etc), thus they did not believe in the effectiveness of psychotherapy for improving their symptoms. On the other hand, the German inpatients believed that the cause of illness was not supernatural but natural (i.e "stress", "emotional state", "family problems" etc.), and thus they believed in the effectiveness of psychotherapy. Turkish immigrant inpatients had significantly lower motivation to seek psychotherapy than the German inpatients. Similarly, in a cross-cultural study comparing undergraduate students in Japan and the USA, attitudes toward help-seeking were compared through an Inventory of Attitudes toward Seeking Mental Health Services (Mojaverian et al., 2012). The Japanese students reported a greater reluctance to seek professional help compared to the American students. Thus, it can be concluded that help-seeking attitudes and behaviors are tightly linked with how patients conceptualize their psychological disorders.

Mixed-method designs were recommended to shed light on the personal and cultural conceptualization of psychological disorders (Karasz & Singelis, 2009). The symptoms could be tracked through questionnaires, and in-depth and more detailed descriptions of symptoms could be revealed through interviews. Additionally, cultural perspectives and attitudes toward the symptoms could be easily captured through personalized interviews, to reveal insights into why people do what they do (Karasz & Singelis, 2009).

Taking everything into consideration, one of the goals of the present study was to show the link between culture and somatic symptoms in a non-clinical sample. The researcher aimed to show whether cultural variables predict somatic symptoms.

1.6. Qualitative Research on Somatic Symptoms

There have been a limited number of qualitative studies on somatic symptoms. One reason may be that, as previous research showed, patients with somatic symptoms have difficulties in verbalizing their emotions and experiences (Aiarzaguena et al., 2013; Lanzara et al., 2019; Raguram et al., 1996), because of fear of a possible stigmatization. In a study that took place in South India, 80 psychiatric outpatients with depressive and somatoform symptoms were interviewed on illness experience, symptom prominence, and indicators of stigma (Raguram et al., 1996). It was shown that a tendency to perceive and verbally report the distress felt by those who have somatic symptoms was influenced by the degree of stigma associated with depression. It was concluded that when the perceived risk of being stigmatized increases, verbal report decreases. In another qualitative study, where physicians interviewed 11 patients with medically unexplained symptoms, it was observed that once physicians declared that the symptoms that they suffered from remained medically unexplained, patients refused communication by either disagreeing with the argument or refusing to communicate at all, or by remaining silent and giving minimal responses (Aiarzaguena et al., 2013). However, when physicians

declared that the symptoms could be the result of hormonal alterations caused by the perception of life events and experience, patients were observed to be motivated to talk more about their symptoms. Researchers concluded that patients were afraid of being stigmatized as "mentally ill" when the symptoms remained medically unexplained. Thus, they tended to refuse communication with physicians. However, when the symptoms had a possible medical explanation, there would not be any possible risk of stigmatization, thus patients were willing to talk more about their symptoms. Overall, it can be concluded that patients with somatic symptoms have difficulty in verbalizing their emotions, and they also refuse to talk about their symptoms because of a risk of possible stigmazation, which in turn is an obstacle to running a qualitative study on somatic symptoms.

A limited number of qualitative studies also showed that psychosocial distress was perceived as a reason for somatic symptoms (Baarnheilm & Ekblad, 2000; Kuruvilla & Jacob, 2012). In a study that was run in India, family members of patients with anxious-depressive and somatic symptoms were interviewed on the perceived reason for those symptoms (Kuruvilla & Jacob, 2012). Family members mentioned that somatic symptoms could be a manifestation of psychosocial distress. However, they also declared that they were not sure if it was the reason, because individuals with those symptoms did not verbalize any distress. The authors concluded that not verbalizing any distress could be related to mental illness stigma. A similar finding was revealed in a study where Turkish immigrant women in Stockholm with chronic pain were interviewed (Baarnheilm & Ekblad, 2000). Participants declared "stress" as the main perceived reason for somatic symptoms, while "too much hard work" and "bodily suffering causing depression" were also mentioned as other reasons.

Qualitative studies on somatic symptoms also revealed that patients with somatic symptoms hesitated to receive psychiatric treatment (Baarnheilm & Ekblad, 2000; Wileman et al., 2002). In the same study that was run with Turkish immigrant women in Stockholm, participants also declared that they were avoiding having psychiatric treatment because of a possible stigma and shame

(Barrnheilm & Ekblad, 2000). They also mentioned that they were avoiding discussing their illness with their social networks (i.e family members, and friends) because of the same reason. A similar finding was also true for non-immigrant individuals. In a study that was run in North-West England, 17 (11 male, six female) general practitioners who work with patients with medically unexplained physical symptoms were interviewed (Wileman et al., 2002). The general practitioners declared that patients with medically unexplained symptoms were harder to manage, and tough to negotiate and form a bond with. The reason mentioned was the phenomenon that those patients tend to have symptoms that are harder to understand such as "heartsink" (p.181) and they lack insight about the relationship between unhappiness and physical health. Thus, these general practitioners declared that they felt that the "balance of power" was with the patient, which made the general practitioners feel anxious. Moreover, they also mentioned that those patients with medically unexplained symptoms do not trust doctors as easily as other patients do, which results in management and bonding difficulties as well.

To sum up, a limited number of qualitative studies on somatic symptoms have shown that individuals with somatic symptoms have difficulties in verbalizing their emotions because of stigmatization which could be the main reason for the limited amount of research. Additionally, it was also shown that individuals with somatic symptoms and their family members perceive stress as the main reason for those symptoms, and individuals with somatic symptoms tended to avoid treatment because of, once again, a possible stigmatization as "mentally ill".
The current study aimed to contribute to the narrow qualitative study literature, by running short interviews with participants who have somatic symptoms. It was aimed to reveal the subjective conceptualization of somatic symptoms, by detailing the kinds of somatic symptoms, the perceived reasons for those symptoms, and coping strategies.

1.7. The Current Study

Researchers have shown that individuals with major depressive disorder diagnosis, and anxiety without any diagnosis, tend to experience more somatic symptoms. Similarly, as noted previously, emotional non-expressiveness was linked with somatic symptoms in the patient population. It has also been suggested that cultural factors have an impact on the manifestation, conceptualization and experience of the psychological disorders, as well as intervention-seeking behaviors. Individuals from collectivistic cultures and lower SES backgrounds tend to manifest psychological disorders as somatic symptoms. It has been controversial as to whether age and gender would predict somatic symptoms in every situation. Therefore, the quantitative part of the current study aimed to investigate age, gender, SES, emotional non-expressiveness, anxiety, depression, obsessive-compulsiveness, phobic anxiety, paranoid ideation, interpersonal sensitivity, hostility, psychoticism, individualism, and collectivism as predictors of somatic symptoms.

Additionally, as noted previously, culture has an impact on the expression, experience and manifestation of the somatic symptoms. Conceptualization, assessment and treatment seeking behaviors are affected by the cultural norms and the expectations of other people within the cultural group. Individuals conceptualize their somatic symptoms according to the societal norms within their cultures. In addition, researchers showed that collectivistic individuals tend to hide the psychosocial conflict that they experience because of fear of stigma from others. Consequently, the qualitative part of the present study aimed to understand the kinds of somatic symptoms that participants experience, their and their families' conceptualization of those symptoms, and the coping strategies they developed in order to deal with those symptoms.

The goals of the present study were estimating the possible predictors of somatic symptoms in a non-patient population and thus having a general picture of somatic symptoms in the public, which could help others to form preventative

and intervention strategies. Self-report scales were used to estimate possible predictors of somatic symptoms. Additionally, the researcher aimed to understand the participants' own conceptualization of somatic symptoms such as possible reasons for their symptoms, personal and in-group (family, friends, society etc.) attributions toward symptoms and their thoughts on any possible help. Interviews were conducted to get information about the conceptualization and attribution of somatic symptoms. Thus, the present study had quantitative and qualitative parts. Both the quantitative and qualitative parts were conducted concurrently.

For the quantitative part of the study the hypotheses were as follows:

i. Age, gender, SES, emotional non-expressiveness, psychological disorders, such as depression, anxiety, phobic anxiety, psychoticism, paranoid ideation, hostility, interpersonal sensitivity, and obsessive-compulsive disorder, and cultural variables of individualism and collectivism would predict somatic symptoms and explain a significant portion of the variance in somatic symptoms.
ii. Individualism was hypothesized to be one of the predictors of somatic symptoms, and it was expected to be negatively correlated with somatic symptoms.
iii. Collectivism was hypothesized to be one of the predictors of somatic symptoms and it was expected to be positively correlated with somatic symptoms.
iv. Age was hypothesized to be one of the predictors of somatic symptoms, and it was expected to be positively correlated with somatic symptoms.
v. SES was hypothesized to be one of the predictors of somatic symptoms and it was expected to be negatively correlated with somatic symptoms.

For the qualitative part of the study, the research questions were:

i. How do participants conceptualize their somatic symptoms? What do they think are reasons for those symptoms?
ii. How do the significant others (family members, friends etc.) conceptualize those somatic symptoms? What do they think of as the reason for those symptoms? How do they react to those symptoms?
iii. How do participants cope with those symptoms? What kinds of treatments, if any, did the participants seek for their somatic problems? What are their future plans, if any, regarding coping with those symptoms?

CHAPTER 2

METHOD

2.1. Quantitative Study

2.1.1. Participants

Purposive sampling was used in the present study. Sample inclusion criteria for participants were: Being over 18 years of age, native language being Turkish, not having any physical and/or psychological disorder diagnosis and living in Istanbul. The upper age limit was determined as 65 years old, suggested by The World Health Organization (2018) as the age for the beginning of possible age-related cognitive malfunctioning (Salthouse, 2009). Participants who fulfilled the sample inclusion criteria of the study were included in the final sample for the quantitative part of the study.

The sample size for the quantitative part of the study was determined as a minimum 98 participants via the G-Power Statistical Package (Version 3). The *linear multiple regression, fixed model,* R^2 *deviation from zero* was selected for the analysis, since multiple regression was run for the continuous criterion variable of somatic symptoms (Wang, Kelly, Lui, Zhang & Hao, 2013). For the sample size determination analysis, *squared multiple correlation* p^2 was determined as 0.25, which corresponded to large effect size (0.05). The *Type I error rate* was chosen as 0.05 and *the level of statistical power* was fixed at 0.95 (95% confidence interval) for the analysis. As a result of the analysis, the sample size was found to be a minimum of 98.

The data collection was performed in two stages. In the first stage, 275 participants filled in the demographic information sheet, Brief Symptom

Inventory, Individualism and Collectivism Scale, and the Emotional Non-expressiveness Subscale for Type-C Behavior. Among the 275 participants, there were fewer males (n = 63) and lower SES participants (n = 8). In order to increase the number of male participants and participants with low SES, extra data was collected at the second stage. The reason for the second step was to meet the homogeneity of variance assumption for ANOVA (Tabachnick & Fidell, 2012). An extra 130 male blue-collar workers were added to the study through personal invitation. The researcher invited janitors and their relatives and friends to the study. A total of 405 participants filled in the demographic information sheet, Brief Symptom Inventory, Socioeconomic Status Scale, Individualism and Collectivism Scale, and the Emotional Non-expressiveness Subscale for Type-C Behavior. There were 79 missing cases and outliers, thus the final sample consisted of 326 participants.

The participants' ages ranged between 19 and 65 (M = 42.72, SD = 12.298). A total of 178 of the participants were female (54.6%) whilst 148 were male (45.4%). As for marital status, 70 were single (21.5%), 34 were in a romantic relationship (10.4%), 22 were engaged (6.8%), 138 were married (42.3%), 48 were divorced (14.7%), and 14 were widowed (4.3%). A total of 150 participants had children (46.01%) and 176 did not (53.9%). In terms of educational level, 13 had graduated from primary school (3.9%), 14 graduated from middle school (4.3%), 33 graduated from high school (10.1%), 16 graduated from 2-year college (4.9%), 132 graduated from 4-year college (40.5%), and 118 had a postgraduate degree (36.3%). All participants were living in Istanbul. In terms of the place they had lived for the longest time, 2 participants had lived in a village (0.60%), 29 had lived in a town (8.8%), 50 had lived in a city (15.3%), and 245 had lived in a metropolis (75.3%). As for socioeconomic status (SES), 88 participants had low SES (27%), 108 had middle SES (33.1%), and 130 had high SES (39.9%). The SES status of participants was determined through The Socioeconomic Status Scale (see *Materials*). All of the demographic information of the participants in the quantitative part of the study is shown in Table 1.

Table 1. Sample Demographic Information For The Quantitative Part (N=326)

Variable		%	*n*
Gender			
	Female	54.6	178
	Male	45.4	148
Marital status			
	Single	21.5	70
	In a relationship	10.4	34
	Engaged	6.8	22
	Married	42.3	138
	Divorced	14.7	48
	Widowed	4.3	14
Having children			
	No	53.9	176
	Yes	46.01	150
Education			
	Primary school	3.9	13
	Middle School	4.3	14
	High school	10.1	33
	2-year college	4.9	16
	4-year college	40.5	132
	Graduate school	36.3	118
The place lived for the longest time			
	Village	0.60	2
	Town	8.8	29
	City	15.3	50
	Metropolis	75.3	245
SES			
	Low	27	88
	Middle	33.1	108
	High	39.9	130

2.1.2. Materials

Demographic information sheet, Socioeconomic Status Scale (TUAD, 2012), Brief Symptom Inventory (Şahin & Durak, 1994), Individualism and Collectivism (IND-COL) Oyserman's Scale (Oyserman 2002; Öztürk et al., 2019), and Type-C Behavior Scale – Emotional Non-Expressiveness Subscale (Bozo et al., 2012; Kurass, 2004) were used.

2.1.2.1. Demographic Information Sheet

In the demographic information sheet, there were questions about age, marital status, educational status, working status, place of residence and place lived for the longest time (urban vs rural), economic status, the physical and psychological health status of the participants, and if any, the type of treatment they were receiving. Also, the participants were asked to report if they thought they had a physical or a psychological disorder, even if they had not received an official diagnosis from a health-care professional (see *Appendix D*).

2.1.2.2. The Socioeconomic Status Scale

The Socioeconomic Status (SES) Scale was developed through cooperation between the Turkish Statistical Institute (TURKSTAT, i.e TUIK) and the Turkish Researchers' Association (i.e TUAD) at the end of 2 years' field work in which 5,000 houses in Turkey were screened (TUAD, 2012).

Until 2012, SES was determined by just estimating the income and the educational level, which was later debated. It was argued that SES could not be determined by just estimating the income and the educational level since those may not be sufficient to determine SES. Thus, not only the income and educational level of the individual, but also the total years of education of family members, profession and employment status of family members, ownership of real estate or similar assests, and the total income of the family members were included to estimate the SES. In the Socieoconomic Status Scale, SES was constructed as a combination of level of income, educational level, total years of education of family members, profession and employment status of family members, ownership of real estate, and the total income of family members. The detailed information on the determination of SES clusters were given below. The SES Scale consists of seven open-ended and three multiple choice questions that assess those relevant areas. (See *Appendix E*).

The SES Scale has been created through a field trial. The field trial lasted for two years and 5,000 household were visited in 26 NUTS (*Nomenclature of Territorial Units for Statistics*) cities. NUTS cities are the cities that satisfied European Union criteria as a major socioeconomic region (TUAD, 2012). During the visits to households, one of the family members was interviewed. The inclusion criteria for the interviews were being older than 18 years old and living in the household for at least 6 months. The interviews lasted for 20 minutes. During the interviews, information about number of family members, each member's income, educational level and profession, information about ownership of real estate or similar assets, and total income of family members were gathered. The collected data were clustered into SES clusters.

The SES clusters have been estimated according to the clusters that were devised by the Turkish Statistical Institute. The individuals were assigned to a specific cluster according to the patterns in their answers. The low SES cluster consists of individuals who have had a maximum of 8 years of formal education, are unemployed, do not possess their own home and are living with family members who also have a maximum of 5 years of formal education and are unemployed or retired. The middle SES cluster consists of individuals who have had 8 to 12 years of formal education, who work in blue-collar jobs or are retired, may possess their own home and automobile (but not necessarily), live with family members who have also had a maximum of 12 years of formal education, and are either unemployed/retired or are blue-collar. The high SES cluster consists of individuals who have had at least 2 years at college, who work in white-collar jobs, possess their own home and automobile, live with family members who have also had at least 2 years at college and work in white-collar jobs. The benefit of using the SES Scale has been that of estimating the country-specific clusters which have been formed by field trial.

As mentioned above, the SES clusters were determined through a comprehensive field trial. Thus, no reliability and validity study was performed; however the field trial could be evaluated as a sign of validity.

2.1.2.3. Brief Symptom Inventory

The Brief Symptom Inventory (BSI) was developed by Derogatis (1992). It is a 53-item self-evaluation scale that is a short version of the Symptom Check List 90 revised (SCL-90-R) (Şahin & Durak, 1994; Şahin et al., 2002). The BSI is a 5-point Likert-type scale that ranges from 0 (*never*) to 4 (*always*). There are nine subscales (*somatization*, *obsessive-compulsive symptoms*, *interpersonal sensitivity*, *depression*, *anxiety, hostility*, *phobic anxiety, paranoid ideation*, and *psychoticism*), and three global indices (*global severity index*, *positive symptom distress index*, and *positive symptom total*) (Şahin et al., 2002). The internal consistency of the original BSI ranged from .71 (psychoticism) to .85 (depression), and the test-retest reliability ranged from r = .68 (somatization) to r = .91(phobic anxiety), while the internal validity of the original BSI ranged from .71 (psychoticism) to .85 (depression) (Derogatis, 1992).

The scale was adapted to the Turkish population in 1994 (Şahin & Durak), and nine subscales and three global indices were found to be valid and reliable for the Turkish population as well. For the Turkish population, the scale was found to be reliable a = .94. The internal consistency values were a = .75 for paranoid ideation; a = .76 for hostility; a = .82 for phobic anxiety; a = .65 for psychoticism; a = .78 for somatization; a = .74 for interpersonal sensitivity; a = .84 for depression; and a = .81 for anxiety (Şahin & Durak, 1994). In terms of the validity, the BSI was valid for the Turkish population (Şahin & Durak, 1994). The BSI was highly correlated with the Beck Depression Inventory; r = .67, and the Multiscore Depression Inventory; r =.94 (Şahin & Durak, 1994). The correlation coefficients for the BSI subscales and the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) ranged between .13 (p < .001; for interpersonal sensitivity) and .36 (p < .001; for hostility). It was concluded that psychological problems would increase or decrease in the same way that loneliness increases or decreases. The correlation coefficient between the subscales of the BSI and Beck Depression Inventory ranged between .34 (p <

.001) and .70 (p < .001). Please see *Appendix F* for the Brief Symptom Inventory.

For the current sample, BSI was found to be reliable as well (a = .92).

2.1.2.4. The Individualism and Collectivism (IND-COL) Scale

The original IND-COL Scale was developed by Oyserman (2005) and adapted to the Turkish population by Öztürk, Kılıçaslan-Gökoğlu and Kütahnecioğlu-İnan (2019). The IND-COL Scale (Öztürk et al., 2019) was preferred to be used in the present study because the scale was adapted for Turkish population and the contents of the questions were also revisited to measure unique collectivism and individualism constructs in Turkish population. In addition to that, it was argued that collectivism and individualism constructs are dynamic and open to change year-by-year. The IND-COL Scale was adapted for Turkish population very recently, in 2019. Thus, it could be said to be another strength of IND-COL Scale and reason for its use in the present study.

The scale is composed of 36 items and each item is scored from 0 (*strongly disagree*) to 4 (*strongly agree*) on a 5-point Likert type (Oyserman, 2005). There are six factors in the IND-COL Scale: *Valuing Personal Achievement*, *Familialism*, *Valuing Personal Uniqueness*, *Interrelatedness*, *Valuing Personal Freedom*, and *Sense of Common In-Group Fate*. The items for each factor are as follows: items 1, 4, 8, 9, 11, and 12 for valuing personal uniqueness; items 2, 3, 5, 6, 7,10, 17 for familialism; items 13, 14, 16, 19, 26, and 31 for valuing personal achievement; items 15, 18, 25, 29, 32, and 35 for interrelatedness; items 20, 21, 22, 27, and 33 for valuing personal freedom; and items 24, 25, 28, 30, 34, and 36 for sense of common in-group fate (Oyserman, 2005). The item numbers for each six factors are the same in the Turkish version as well.

The items for determining individualism include valuing personal achievement, valuing personal freedom, and valuing personal uniqueness; whereas the items

for collectivism are familialism, interrelatedness, and sense of common in-group fate. For the total individualism and collectivism scores, the total scores of items for the subscales are divided by the number of questions in that sub-scale (Öztürk et al., 2019).

The original scale was found to be reliable, a = .81 for the individualism sub-scale and a = .80 for the collectivism sub-scale (Oyserman, 2005). In terms of the validity of the original scale, the scale was correlated with the Individualism and Collectivism Scale developed by Triandis and Gelfand (1998), in which the factors are *horizontal collectivism*, *horizontal individualism*, *vertical collectivism* and *vertical individualism* (Triandis & Gelfand, 1998). Horizontal individualism was mentioned as a cultural pattern where an autonomous self is postulated, but the individual is more or less equal in status with others. The self is independent and the same as the self of others. Vertical individualism was suggested as being independent and autonomous but also being competitive and striving to be the best. Horizontal collectivism was explained as being similar to others, emphasizing common goals with others, interdependence, and sociability. Vertical collectivism was conceptualized as emphasizing the integrity of the in-group, willingness to sacrifice personal goals for the sake of in-group goals, and supporting the competition of in-groups with out-groups (Triandis & Gelfand, 1998). It was found that horizontal and vertical individualism were significantly correlated with valuing personal achievement and valuing personal freedom, ranging between r = .40 and r = .70. The correlation coefficient between vertical and horizontal collectivism and familialism, sense of common in-group fate, and interrelatedness ranged between r = .22 and r = .71.

The reliability and validity study of the IND-COL Scale for the Turkish population was conducted by Öztürk et al. (2019). Confirmatory factor analysis showed that the six-factor model was also valid for the Turkish population (SRMR $\leq$ .06, RMSEA $\leq$ .05, CFI $\leq$.88). In terms of validity, the IND-COL Scale was correlated with the Individualism and Collectivism Scale that was also used for the validation of the original scale. As expected, it was found that

horizontal and vertical individualism were significantly correlated with valuing personal achievement and valuing personal freedom, ranging between r = .35 and r = .64. Yet vertical and horizontal collectivism were not correlated with valuing personal achievement and valuing personal freedom, as hypothesized. The correlation coefficient between vertical and horizontal collectivism and familialism, sense of common in-group fate, and interrelatedness ranged between r = .20 and r = .70, as expected. The IND-COL Scale may be found in *Appendix G.*

For the current sample, the IND-COL Scale was found to be reliable as well (a=.89).

2.1.2.5. The Type-C Behavior Scale – Emotional Non-Expressiveness Subscale

Type-C behavior is suggested to be a pattern of behaviors in which individuals tend to suppress their emotions, do not verbalize them, and are passive, not assertive (Eysenck, 1994). The Type-C Behavior Scale was developed by Kurass (2004). The scale consists of 12 items where items are scored in a Likert-type scale from *Not like me* to *A lot like me* (Bozo et al., 2012). The scale is composed of two factors: self-sacrificing behaviors and emotional non-expressiveness in both original and Turkish versions (Bozo et al., 2012).

The original scale was found to be reliable a = .77. The alpha level for the self-sacrificing behavior factor was .83, and .77 for emotional non-expressiveness factor. (Kurass, 2004). For the validity, the original scale was correlated with the King and Emmons Emotional Expressiveness Scale (r = .66, p < .05).

The Turkish adaptation, reliability and validity studies were conducted by Bozo et al. (2012) for the Turkish population. The two-factor model was also valid for the Turkish population. The internal consistency reliability of the scale was .81 and the test-retest reliability was .87. The internal consistency reliabilities of the

subscales ranged from .80 to .86 (Bozo et al., 2012). The scale was also found to be valid (Bozo et al., 2012). For testing the divergent validity of the scale, the extraversion subscale of the Basic Personality Traits Inventory was used, and the correlation with this scale was statistically significant; $r = -.24$, $p < .05$. From the results, it was concluded that when an individual is introverted, he/she is less likely to express emotions. For testing the convergent validity of the scale, the Toronto Alexithymia Scale was used and the correlation with this scale was also found to be significant; $r = .52$, $p < .01$.

The items on the Emotional Non-Expressiveness Subscale are 8, 9, 10, 11, and 12 (Bozo et al., 2012). Items 9, 11, and 12 were the reverse items. In terms of scoring, each item's scores were tallied and then divided by the number of items. The Emotional Non-Expressiveness Subscale can be seen in *Appendix H.*
For the current sample, the Emotional Non-Expressiveness Scale was found to be reliable as well ($a = .80$).

2.1.3. Procedure

Ethical approval was obtained from Middle East Technical University, Human Subjects Ethics Committee (*Approval number:* 28620816/421, see *Appendix A*). Participants were told about the aim of the study through the *Informed Consent* form (see *Appendix B*) and were told they were free to quit the study whenever they wanted. Participants completed the following materials online: The Demographic Information Sheet, The Socioeconomic Status Scale, Brief Symptom Inventory, Type C Behavior Scale – Emotional Non-Expressiveness Subscale, and INDCOL Scale in random order. The Google Forums platform was used to collect the data, and for each participant the platform randomized the order of the scales. Participants were invited to the study via online invitations on social media, and via personal invitation, so as to reach male and low SES participants.

2.1.4. Statistical Analysis

Prior to the quantitative data analysis, the online data set including the scales were transferred from the Google Forums platform to SPSS. The complete data set was examined for missing values and accuracy of data transferring. After data transference and all calculations were made, first of all, preliminary analysis was performed on all variables to test normality, outliers, and multivariate outliers. The results of the preliminary analyses were provided in the results chapter.

To estimate the effect of SES on somatic symptoms, a one-way between subjects ANOVA was run with 3 levels: low SES, middle SES, and high SES. If the effect was statistically significant, the post-hoc comparisons of Tukey HSD tests were run. Similarly, to estimate the effect of gender on somatic symptoms, another one-way between subjects ANOVA was run. Since the effect was not statistically significant, a post hoc comparison test was not run.

The multicollinearity assumption check was performed for the multiple hierarchical regression. There was no variable that violated the assumption. Multiple hierarchical regression with the predictor variables age, SES, emotional non-expressiveness, individualism, collectivism, depression, anxiety, phobic anxiety, obsessive compulsiveness, hostility, interpersonal sensitivity, paranoid ideation and psychoticism, with the criterion of variable somatic symptoms was performed through the IBM Statistical Package of Social Sciences (SPSS) (version 26). Gender was not taken into account in the regression analysis since the effect was not statistically significant according to ANOVA results. The hierarchical regression was performed in three steps.

In the first step, demographic variables and emotional non-expressiveness were added as suggested by Tabachnick and Fidell (2012). Emotional non-expressiveness was also added in the first step, since the literature mentioned it as a personal trait (Bozo et al., 2012; Friedman, 1989; Ogden, 2004). In the second step, cultural variables (i.e individualism and collectivism) were added.

Finally, in the third step, depression, anxiety, phobic anxiety, obsessive compulsiveness, hostility, interpersonal sensitivity, paranoid ideation and psychoticism were added.

2.2. Method for the Short Interviews

2.2.1. Participants

Participants who scored equal to or higher than 1.5 scores in the somatization subscale in the BSI were invited to the short interviews, because scores equal to or greater than 1.5 mean that the participants have clinically significant somatic symptoms (Derogatis, 1993). The cut-off scores were determined through routine outcome monitoring (ROM) method, that is through continuous monitoring of patients' symptomatic and functional status (Schulte-van Maaren et al., 2012). In other words, it provides systematic information on type and severity of the relevant symptom. In a ROM method study, 5,269 psychiatric outpatients were given BSI. The outermost 5% of observations were used to define limits for reference points. It was revealed that scores equal to or higher than 1.5 in the somatization subscale corresponded to the outermost 5% (Schulte- van Maaren et al., 2012) for the psychiatric outpatient population.

All of the participants participated in the study voluntarily and were told about the aim(s) of the study through the Informed Consent form. Participants who attended two parts of the study were given two different Informed Consent forms.

Forty-five participants scored equal to or higher than 1.5 in the Somatization Subscale in the BSI, yet 33 did not provide contact information. Two participants refused to be interviewed without declaring any specific reason. A total of 10 participants attended the short interviews. The age range was from 25 to 56 (M = 33.8, SD = 10.539). There were seven females and three males. As for marital status, four were married (40%), one was engaged (10%), two were in a romantic

relationship (20%), and three were single (30%). There were two participants who had children (20%). In terms of educational level, five had graduated from 4-years college (50%) and the remaining five had a graduate degree (50%). Nine participants lived mostly in a metropolis (90%) whilst one lived mostly in a city (10%). As for SES, four participants had middle SES (40%) whilst six participants had high SES (60%). In terms of culture, all ten participants were collectivistic.

2.2.2. Materials

The semi-structured interview protocol was prepared by the researcher and reviewed by the supervisor who is experienced in qualitative research design. The questions were derived according to the rationale and aims of the study. The questions were prepared in the scope of research questions that were mentioned in *1.7 Current Study* section. The ultimate interest was understanding the personal conceptualization and experience of somatic symptoms in a subjective manner. In this regard, the main rationale during the preparation of questions were forming questions that would give participants space to talk about their somatic symptoms, subjective and family members' perceived reasons of those symptoms, significant others' conceptualization of symptoms and their reaction toward symptoms, any previous treatment of symptoms and futureplans for symptoms. As understood and noted before, the ultimate goal of the short interviews was revealing subjective conceptualization of somatic symptoms which was covered by limited number of previous studies in the somatic symptom literature. The previous qualitative studies (Aiarzaguena et aş., 2013; Baarnheilm & Ekblad, 2000; Kuruvilla & Jacob, 2012; Lanzara et al., 2019; Raguram et al., 1996; Wileman et al., 2002) suggested that somatic symptom manifestation and experince interact with individual's surrondings, family members and significant others (i.e friends, romantic partners etc.) and their attitudes toward symptoms. Thus, questions not only on somatic symptoms but questions on introduction of self and family members, introduction of early childhood, familial and friendship dynamics, education and occupational status

were also assessed in order to have relevant detailed information about participants. The information would result in a comprehensive framework about participants that was thought to be helpful for understanding the subjective conceptualization of somatic symptoms.

The questions were grouped in two parts, questions about self and family, and questions about somatic symptoms.

Questions about self and family mainly covered the following: introduction of self, introduction of early childhood (place of birth, any significant events during childhood); educational and/or occupational status (whether the participant was studying and working, the reasons for choosing the current field, future plans); introduction of the family members (how many people were they living with, how frequently were they getting together); description of the familial dynamics (familial relationships, the roles of emotions and the patterns and functions of sharing emotions), and description of their friendship dynamics.
Questions about somatic symptoms mainly covered the following: descriptions of the physical symptoms and complaints (starting, patterns, frequencies); descriptions of the effects of those symptoms on daily life; the individual conceptualization of the symptoms (the perceived reasons for the symptoms); family members' and friends' perceived reasons for those physical symptoms; and the reactions of family members and friends to those physical symptoms.
The questions were open-ended so that researchers had the chance to deepen the responses. The open-ended interview questions can be seen in *Appendix F*.

2.2.3. Procedure

The present study was a mixed method concurrent study where participants were given scales in the quantitative part and participants who scored equal to or higher than 1.5 scores in the somatization subscale in the BSI were invited to the interviews. Relevant participants were invited to the interview before the results of the quantitative part were analyzed. Researcher did only scan participants with

equal to or higher than 1.5 scores in somatization subscale in the BSI to determine interviewees. None of the statistical analysis for given scales in the quantitative part were run before short interviews.

Participants who did have scores equal to or more than 1.5 points in the somatization subscale of the BSI were invited to an interview. All participants were asked to write down their contact information on the *Informed Consen*t form for the quantitative part. Researcher invited each participant to the interviews by calling the phone numbers that were given on the Informed Consent form for the scales. The researcher told each participant the reasons why they were invited to the interviews, and the procedure of the interview in brief. The researcher and each participant agreed on a day and a time in the following days that was suitable for both. Each participant was asked to be in a quiet place where they would not be disturbed and to be alone on the interview day. Each participant was sent the Informed Consent form for the short interviews (see *Appendix C*) before the interview as well. On the predetermined interview day, the researcher called each participant. The interview was conducted by phone, again because of the conditions due to COVID-19.

The participants were asked to describe themselves, including their place of birth, general information about their childhood, their current educational level or occupation and the reason(s) for it. Additionally, the participants were invited to describe their family relationships, including the number of family members they lived with, the familial approach to personal experiences, their emotions, and thoughts. Besides the family relationships, their friendships were also asked about, to estimate any possible social pressure or support they received regarding expressing emotions. The somatic symptoms were also asked about, to assess the manifestation and experience of those symptoms. The attitudes toward those symptoms (including individual's own, family members' and friends') were also estimated. Whether the relationships with family members and friends were affected and if affected, in which way they were, were also enquired of the individuals, to get a general picture of the somatic symptom experience. Finally,

thoughts of a possible future or past intervention to deal with those symptoms were assessed.

Interviews lasted between 35 and 55 minutes (average 41.5 minutes)

2.2.4. Thematic Analysis

Thematic analysis with an inductive approach was performed. The researcher did not base the thematic analysis on any predetermined theoretical framework. Therefore, an inductive approach was used in order to have themes that were strongly linked to the data themselves without any pre-determined theories (Patton, 1990; Braun and Clarke, 2006).

The Braun and Clarke (2006; 2014) six steps guidelines for thematic analysis were followed. As suggested, in the first step, the researcher repeatedly read the data in an active way in which meanings and patterns were searched for. The aim of this step was to be familiar with all aspects of the data. The researcher transcribed the data into written form and took notes on the repeated patterns that were helpful during the forming of the codes. In the second step, initial codes (i.e meaning units) were generated. Codes identify a feature of the data that appears interesting to the researchers, and refer to "the most basic information that can be assessed in a meaningful way regarding the phenomenon" (Braun & Clarke, 2006). The process of coding is a part of analysis in which the researcher organizes the data into meaningful groups, so that each potential theme is covered as well as possible. A list of codes was identified. In the third step, the different codes were combined and sorted to form themes. A theme is a concept that captures and summarizes the core aspect of a meaningful pattern in the data (Braun and Clarke, 2006; 2014). The researcher aimed to compile themes that would represent the overall data without skipping any meaningful aspect of the data. Sub-themes also emerged. In the fourth stage, the themes were reviewed. The researcher discussed the potential themes with the supervisor. Some candidate themes were not really themes, while other themes collapsed into each

other. The final themes and sub-themes were determined (see *Results for Short Interviews)*. In the fifth step, the final themes and any sub-themes were defined and named. The researcher aimed to have themes and sub-themes that describe the overall meanings in the data without any missed meaning. In the sixth and last step, the researcher produced the report (see *Results for Short Interviews)*

CHAPTER 3

RESULTS

3.1. Results of the Quantitative Study

3.1.1. Preliminary Analysis

Data from 405 participants was collected from the quantitative study. There were 73 pieces of data which duplicated other data in the scales which were excluded from the data sheet. Mahalanobis distance (X^2 = 32.9095, p < .001,) was calculated to identify the multivariate outliers. The results of this analysis indicated that there were six multivariate outliers for the predictor variables of phobic anxiety and psychoticism, and the outliers were excluded from the data analysis. Therefore, the data analysis for the quantitative study was performed with the scores of 326 participants.

As a part of the preliminary analysis, descriptive statistics (mean, standard deviation, variance, skewness, standard error of skewness, kurtosis, standard error of kurtosis, min-max, and range) for predictor variables were calculated, and are shown in Table 3. Phobic anxiety was not normally distributed with a skewness of 1.658 (*SE* = .174) and kurtosis of 3.083 (*SE* = .346). Similarly, psychoticism was not normally distributed with a skewness of 1.524 (*SE* = .170) and kurtosis of 2.270 (*SE* = .338).

After excluding the six outliers determined by Mahalanobis distance values, skewness and kurtosis were calculated again for phobic anxiety and psychoticsm. The results showed that phobic anxiety was normally distributed with a skewness of 1.658 (SE = .174) and kurtosis of 2.309 (SE = .346). Similarly, psychoticism

was normally distributed with a skewness of 1.410 (SE = .174) and kurtosis of 1.830 (SE = .346).

Table 2. Descriptive Statistics

Variables	Mean	Standard deviation	Variance	Skewness	Kurtosis
Age	42.72	12.298	165.60	-.163	-1.188
Emotional non-expressiveness	2.30	.416	.173	.356	-.074
Individualism	3.55	.682	.466	-.265	.233
Collectivism	3.18	.67	.447	.197	-.103
Depression	.76	.689	.475	1.049	.564
Anxiety	.76	.689	.475	1.049	.148
Phobic anxiety	.43	.569	.324	1.658	2.309
Hostility	.68	.618	.383	1.102	.700
Paranoid ideation	.9714	.744	.554	.727	-.115
Psychoticism	.4714	.520	.271	1.410	1.830
Obsessive compulsiveness	.94	.647	.418	.575	-.208
Interpersonal sensitivity	.72	.737	.544	1.208	.822

N = 326

SE of skewness = .174

SE of kurtosis = .346

One way between-subjects ANOVA tests were run for variables SES and gender, to estimate their effect on somatic symptoms. Only the variables that had a significant effect on somatic symptoms were added into the hierarchical multiple regression. A one way between-subjects ANOVA was run to estimate the effect of SES on somatic symptoms in low, middle and high SES conditions. There was a significant effect of SES on somatic symptoms; F (2,323) = 17.526, $p < .05$. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the high SES (M = .4824, SD = .55) was significantly different than the mean score for low SES (M = .9621, SD = .64) but not different than the middle SES (M = .6402, SD = .59) The mean score for the low SES was significantly different than both the mean scores for the middle and high SES. The mean differences can be seen in Table 3.

Table 3. Tukey's HSD Comparison

		Mean Difference	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low SES	Middle SES	.32190*	.08461	.1227	.5211
	High SES	.47969*	.08133	.2882	.6712
Middle SES	High SES	-.15779	.07671	-.3384	.0228

* The mean difference is significant at the 0.05 level.

Similarly, a one way between-subjects ANOVA was run to estimate the effect of gender on somatic symptoms. There was not a significant effect of gender on somatic symptoms; F (1,324) = 3.401, p > .05. Thus, gender was not added to the hierarchical multiple regression analysis, whilst SES was added.

3.1.2. Hierarchical Multiple Regression

3.1.2.1. Assumption Checks

The assumptions for the hierarchical multiple regression are the normality of residuals, homoscedasticity and multicollinearity. In order to check *the normality of residuals*, the histogram and normal P-P plot of regression standardized residuals were verified. As demonstrated in Figure 1.1 and Figure 1.2, the distribution was normal, and no violation was observed.

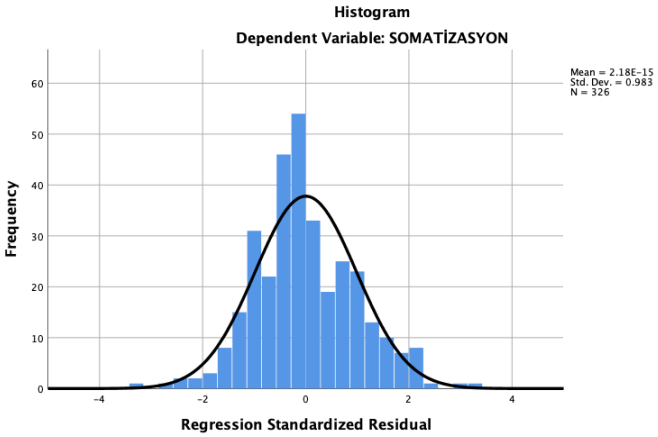

Figure 2 . Histogram Showing The Distribution Of Standardized Residuals

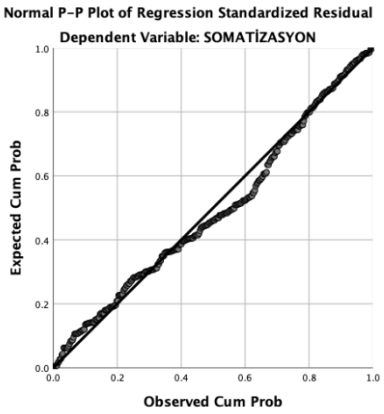

Figure 3. Normal P-P Plot Showing Normality Of Residuals

The *homoscedasticity assumption* was tested by examining the scatter plots of regression standardized predicted values. In order to avoid model violation, the pattern or shape of the scatter plot should not be systematic, and individuals should not be clustered (Tabachnick & Fidell, 2012). According to Figure 1.3, there was no violation of homoscedasticity assumption.

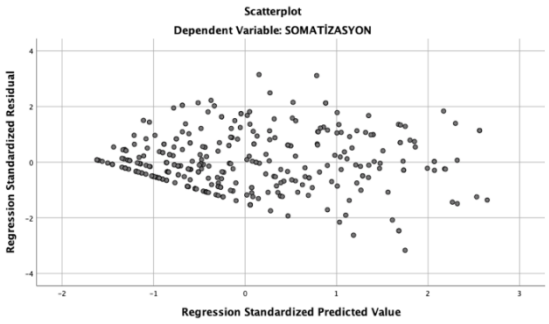

Figure 4. Distribution Of The Homoscedasticity Of Residuals

For the multicollinearity check, bivariate correlations, the value of tolerance, the variance inflation factor (VIF), and the condition index should be estimated (Ringle, Wende, and Becker, 2015). So as not to violate the multicollinearity, there should not be high correlations between predictor variables (i.e $r < 0.7$), and while the value of tolerance should be greater than 0.1, the VIF should be smaller than 10, and the condition index value should be smaller than 30 (Hair, Anderson, Tatham, & Black, 1995; Tabachnick & Fidell, 2012; Ringle, et al. 2015).

Bivariate correlations between predictor variables and criterion variable are shown in Table 5. The highest correlation was r = .65, which did not cause multicollinearity.

The value of tolerance, VIF, and the condition index values are shown in Table 6. The highest value of tolerance was .989, the highest VIF was 2.047 and the highest condition index value was 29.511, none of these values violating the assumption of multicollinearity.

Table 4. The Multicollinearity Statistics

Model		Value of tolerance	VIF	Condition index
1				
	Age	.989	1.011	6.302
	SES	.951	1.051	7.667
	Emotional non-expressiveness	.961	1.041	12.756
2				
	Age	.962	1.040	7.171
	SES	.672	1.487	8.697
	Emotional non-expressiveness	.954	1.048	9.999
	Individualism	.621	1.611	13.894
	Collectivism	.872	1.147	19.386
3				
	Age	.841	1.189	2.946
	SES	.645	1.550	4.931
	Emotional non-expressiveness	.929	1.076	5.535
	Individualism	.581	1.721	6.327
	Collectivism	.836	1.196	7.475
	Depression	.229	4.370	10.680
	Anxiety	.271	3.690	12.361
	Phobic anxiety	.608	1.646	14.806
	Obsessive compulsiveness	.406	2.463	9.393
	Hostility	.521	1.953	
	Interpersonal sensitivity	.310	3.225	9.711
	Paranoid ideation	.605	1.652	19.593
	Psychoticism	.488	2.047	29.511

Table 5. Bivariate Correlations Between Predictor Variables and Criterion Variable

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	1													
2. SES	.104	1												
3. Emotional non-expressiveness	.032	.198**	1											
4. Depression	-.219**	-.191**	-.065	1										
5. Anxiety	-.175**	-.158**	-.059	.650**	1									
6. Phobic anxiety	-.256**	-.144**	.024	.508**	.562**	1								
7. Obsessive compulsiveness	-.288**	-.043	-.041	.635**	.627**	.481**	1							
8. Hostility	-.072	-.154**	.008	.447**	.564**	.411**	.389**	1						
9. Interpersonal sensitivity	-.124*	-.133*	-.070	.630**	.600**	.452**	.590**	.494**	1					
10. Paranoid ideation	-.042	-.017	-.052	.305**	.349**	.265**	.365**	.527**	.412**	1				
11. Psychoticism	-.117*	-.037	-.051	.611**	.592**	.455**	.593**	.435**	.590**	.450**	1			
12. Individualism	-.075	.517**	.168**	-.087	-.049	-.044	.088	-.097	-.006	.149**	.082	1		
13. Collectivisim	.006	-.008	.019	-.050	-.007	-.072	.033	-.115*	.032	-.013	.030	.298**	1	
14. Somatic symptoms	-.062	-.307**	-.052	.590**	.605**	.326	.525**	.365**	.522**	.181**	.386**	-.288**	.066	1

N = 326, * $p < .005$, ** $p < .001$

3.1.2.2. Model Results

A multiple hierarchical regression analysis was conducted, in order to estimate the predictors that are related to somatic symptoms. The regression analysis was performed in three steps. The predictor variables were age, SES, emotional non-expressiveness, individualism, collectivism, depression, anxiety, phobic anxiety, obsessive-compulsiveness, hostility, interpersonal sensitivity, psychoticism, and paranoid ideation, whilst the criterion variable was somatic symptoms.

In the first step of the multiple hierarchical regression, age, SES and emotional non-expressiveness were added into the model. Age, SES and emotional non-expressiveness contributed significantly to the regression model, $F(3,322) = 11.268$, $p < .001$. The model accounted for 9.5% of the variance in somatic symptoms. As shown in Table 6, only the variable SES was a significant predictor ($\beta = -.31$, $p < .001$).

In the second step, individualism and collectivism were added into the model and the regression model accounted for 11.3% of the variance in somatic symptoms. The model significantly contributed 1.8% additional variance in somatic symptoms, $\Delta R^2 = 0.18$, $F\ (2,320) = 3.253$, $p < .05$. The variable individualism ($\beta = -.15$, $p < .001$) was the significant predictor.

In the last step, introducing depression, anxiety, phobic anxiety, obsessive-compulsiveness, hostility, interpersonal sensitivity, psychoticism and paranoid ideation significantly contributed 39.9% additional variance in somatic symptoms, $\Delta R^2 = 0.39$, $F\ (8, 312) = 31.899$, $p < .001$. The model accounted for 51.2% variance in somatic symptoms. The variables age ($B = .123$, $P < .05$), collectivism ($\beta = .128$ $p < .05$), obsessive compulsiveness ($\beta = .27$, $p < .001$), anxiety ($\beta = .26$, $p < .05$), and phobic anxiety ($\beta = .13$, $p < .05$) were significant predictors.

Table 6. Hierarchical Regression Models and The Predictor Variables

Variable		β	p	R^2	ΔR^2
Model 1				.095	.095
	Age	-.030	.572		
	SES	-.305	.000		
	Emotional non-expressiveness	.009	.862		
Model 2				.113	.018
	Age	-.051	.346		
	SES	-.226	.000		
	Emotional non-expressiveness	.018	.724		
	Individualism	-.150	.025		
	Collectivism	.109	.055		
Model 3				.512	.399
	Age	.123	.005		
	SES	-.132	.008		
	Emotional non-expressiveness	.025	.540		
	Individualism	-.171	.001		
	Collectivism	.128	.003		
	Depression	.156	.060		
	Anxiety	.263	.001		
	Phobic anxiety	.132	.010		
	Obsessive compulsiveness	.270	.000		
	Hostility	.020	.717		
	Interpersonal sensitivity	.008	.915		
	Paranoid ideation	-.048	.348		
	Psychoticism	-.056	.322		

Dependent variable: Somatic symptoms

3.2. Results from the Short Interviews

Three themes were obtained from the interviews: *Somatic Symptoms Participants Suffered From*, *Participants' and Significant Others' Perceived Reasons for the Symptoms*, and *Coping with Somatic Symptoms*.

3.2.1. Theme 1: Somatic Symptoms Participants Suffered From

Participants described the somatic symptoms that they experienced. Nine participants mentioned that they were experiencing *symptoms related to the stomach.* One of those nine participants also mentioned *headache and palpitation* as extra symptoms, besides the stomach symptoms. One participant mentioned fainting as their experience of somatic symptoms.

3.2.1.1. Symptoms Related to the Stomach; Heartburn and Nausea

All of the nine participants mentioned that they were experiencing *heartburn (mide yanması)* and *nausea* as somatic symptoms. Six of those participants were females while three of those participants were males.

Participants described heartburn as *"increased acid and heat in the stomach which is very discomforting"*. For instance, a female participant explained:

> I feel that there is a fire in my stomach as if my stomach is burning… It is very discomforting and painful. When the heartburn begins, I feel very intense and high heat in my belly… I do not really know how to describe it… But I feel that there is increased acid in my stomach which would result in consuming itself…

Participants mentioned that they experience nausea right after the heartburn. Participants described nausea as *"a very discomforting sensation as if it would result in vomiting"*. For example, a male participant explained:

> Once the acid is increased in my stomach, a strong sensation of nausea emerged. I am getting really anxious about vomiting. The sensation is very intense and

> hard to manage. I really do not know what to do at those times and I am really afraid of vomiting, especially when I am in public…

All of the nine participants mentioned that they have experienced those symptoms *"ever since they could remember*" (*kendimi bildim bileli*). Participants explained that they have been experiencing heartburn and nausea when they have faced a stressful situation (see *Perceived reasons for the symptoms*) continuously. Each time they confront a stressful situation, heartburn and nausea emerge.

3.2.1.2. Headache and Palpitation

One female participant mentioned that she experiences headache and palpitation besides the stomach-related symptoms. She described headache as *"a very intense pain in the head as if someone is applying pressure to the head from the sides"* and palpitation *as "a feeling that the heart is beating too quickly"*. She mentioned that once the heartburn emerged, nausea started, which was following by palpitations. A headache started right after those symptoms.

> It is terrible… Once I feel that the acid increases in my stomach, I feel a strong urge to vomit. I have never experienced vomiting because of the heartburn but still it is very discomforting to feel. When I am afraid of vomiting, my heart rate increases. I feel as if I have a bird in my chest which is trying to escape from the cage and flutters too quickly. When those symptoms begin to vanish, I feel very intense pain in my head… I feel as if someone is applying pressure to my head from the sides…

None of the remaining participants mentioned headache and palpitations as somatic symptoms.

3.2.1.3. Fainting

These nine participants mentioned that they experience heartburn and nausea as somatic symptoms, while only one participant did not. One female participant mentioned that she experienced fainting as a somatic symptom. She described

fainting as "*blacking out without any physical reason*". She explained the experience as follows:

> I am passing out two or three times every year. I know there is not any physical reason for it. I just black out and faint… Sometimes, I faint in public which is very embarrassing for me. People around me have told me that the black-outs last for twenty minutes. I wake up after twenty minutes and I cannot easily remember what has happened. I only remember the last thing I said, or did just before the black-out but do not remember or understand how I fainted. I have trouble adapting to daily life after each black-out… The following two or three days are the hardest ones because I cannot really focus on anything. Sometimes I feel that there is a curtain between me and the world on those days… But, fortunately, this situation lasts a maximum of three days and then I feel normal again.

The participant mentioned that she had blacked out for the first time two years before, and fainted six times in total. She did not mention any other somatic symptoms such as headache, palpitation, or symptoms related to the stomach.

3.2.2. Theme 2: Participants' and Significant Others' Perceived Reasons for the Symptoms

Despite the different somatic symptoms, all the participants mentioned that they perceived *stress* and *thinking too much* as the reasons for the symptoms. Participants explain stress as *"any situation in which pressure is felt"* and thinking too much about the stress as *"cannot let it go and constantly thinking about it"*.

3.2.2.1. Negative Effect of Stres on Somatic Symptoms

Participants explained that they experienced somatic symptoms which emerged when they were stressed. The stressful situation can be anything (eg. family crisis, conflict with colleagues, arguing with a romantic partner, the pandemic) that makes them feel under pressure. The key concept was mentioned as *"feeling under pressure"*, thus the reason for why they felt under pressure is not important.

For instance, a male participant who suffers from heartburn and nausea explained that there is *"somehow a link between stress and those symptoms"*:

> I do really think that there is somehow a link between stress and those symptoms. Ever since I remember, I have suffered from heartburn and nausea when I feel stressed. I feel that I am under pressure and this pressure somehow results in those bodily sensations. I suffer from heartburn and nausea rarely if I am relaxed and feel good… When I feel stressed, I cannot let it go, I constantly and repeatedly think of it. I also believe that I suffer from those symptoms because I cannot stop thinking of it.

This reasoning is not only true for somatic symptoms related to the stomach, but also valid for participants with headaches, palpitations and fainting. One participant with headache and palpitation explained that there is a loop between the symptoms and the stress:

> I realize that there is a loop. Once I am stressed, I experience heartburn, nausea, and then palpitation and headache… Interestingly, when I realize those symptoms, my stress level increases more and more! And then guess what? I suffer from those bodily sensations more than ever!

This cyclic relationship between stress and somatic symptoms was also mentioned by the participant who experienced black-outs. She explained that stress is both the reason and result of the black-outs:

> I had my first black-out two years ago when I was preparing for nursing school. It was a very stressful period and I constantly felt under pressure. I think that I fainted because of too much stress. I was constantly thinking of my exams and any possible scenario in which I would fail. When I woke up after the first black-out, I did not realize what had happened. I was with my friends, and they told me that I had fainted for twenty minutes. I felt terrible and shocked. They took me to hospital but there was not any physical reason… When I learned that there was not any physical reason for the black-out, I felt more stressed. I do remember that I was very stressed for two weeks. And now, whenever I blackout, I realize that I am very stressed and constantly thinking of the same stressful issue, whatever it is... It is like a joke, but I get more stressed after each black-out and constantly think of any possible future black-out experience which in turn results in more stress!

None of the participants specified what was mentioned as "stress". During the short interviews, even if the researcher invited them to expand on the situations

that were stressful to them, the participants answered in a more general manner (see *Discussion*). Stress was mentioned as caused by family issues, problems with colleagues/at work, arguments with a romantic partner, and the pandemic. However, detailed explanations were not gone into.

3.2.2.2. Rumination as a both reason and outcome of Somatic Symptoms

Participants also explained that once they suffer from somatic symptoms, they think too much about those symptoms, which means they cannot let the thoughts go and constantly think of the symptoms. Each time the symptoms emerged, the participants declared that they were constantly and repeatedly thinking of the symptoms that could be also called as rumination. Rumination has been conceptualized as a deep and constant thinking on something that is a preservative cofnitive content (Nolen-Hoeksema, 2011).

Despite the different somatic symptoms, all 10 participants mentioned that the contents of those thoughts were about complaining of the symptoms. A male participant with heartburn and nausea symptoms explained that once the symptoms emerged, he constantly thought of how discomforting the symptoms were:

> I think that stressful situations were the reasons for the heartburn and nausea. Additionally, I realize that, once I feel stressed and begin to experience those symptoms, thoughts of those symptoms emerge automatically. I find myself in a situation in which I am constantly having complaining thoughts about the symptoms. I repeatedly think "Ah! Again and again! That's enough, I am really tried of this! Why does it happen to me always? Why do other people lack those symptoms? Why me?"… And then guess what, once I am having those complaining thoughts, the symptoms get stronger!

Similarly, the female participant with the fainting symptom explained that once she was stressed and found herself in a loop, she began to complain about fainting and its adverse effects:

> Once I found myself in a loop where stress was the reason for fainting and then I got more stressed because of the experience of fainting, I was having complaining thoughts. I realized I was in another loop where I was thinking of fainting and its adverse effects, which made me more stressed. As I mentioned before, two or three days after fainting, I feel that I have a curtain between me and the world. It is like I am living in my own mind where only complaining and discomforting thoughts about fainting are dominant. I am constantly and repeatedly thinking of the fainting experience every second. And even if I know that once I am having those constant thoughts, I am getting more stressed, which is another trigger of fainting, I cannot help thinking about it.

It can be understood that, participants mentioned that stress and rumination (thinking too much about the sypmtoms) were the reasons for their somatic symptoms. There was a consensus on the perceived reasons for somatic symptoms in the participants. However, there was no consensus between participants' and their family members' perceived reasons for the somatic symptoms. All the participants mentioned that their family members thought that *"being vulnerable"* was the reason for the somatic symptoms.

3.2.2.3. "Being vulnerable" as Family Members' Perceived Reason of Somatic Sympoms

Despite the different somatic symptoms, all the participants explained that their family members conceptualized the somatic symptoms as a result of being vulnerable. Participants described "being vulnerable" as *"being so sensitive and being easily affected".* They explained that their family members mentioned that they were over-sensitive, they were easily affected by everything and could not get rid of it. For example, a male participant with heartburn and nausea declared that his mother conceptualized those symptoms as a result of his son's "*sensitive personality*":

> My mother and I are on different pages in terms of conceptualization of my somatic symptoms. I think that I am under pressure in my daily life. I constantly think of the things that I should do. That makes me very stressed and whenever I feel stressed, heartburn and nausea start. But my mother thinks that I am a sensitive person and that is why I cannot get rid of things that I think of easily. She repeatedly says that "You are very sensitive, that is your personality. That is

> why you think of every little thing, get stressed and experience those symptoms. Try to be relaxed."

A similar conceptualization was mentioned by a female participant who had black-outs. She also explained that her parents thought that she faints and blacks out because she is vulnerable, which means that she is *"too emotional"*:

> My mother and father get very upset when I have black-outs. They try to help me and always say "You are such an emotional woman… Please do not be like that, be strong. You are very vulnerable and that is why you experience black-outs. Try to be more logical and to focus on the positive aspects of life. This vulnerable and emotional personality will make you sad in future". … I know that they want the best for me but I do not agree with them. I do not think that I am vulnerable and too emotional. I think that feeling under pressure and thinking too much about the same stressful situation cause me to faint.

As well as being understood, despite the different experienced somatic symptoms, participants and their family members were not on the same page regarding the perceived reasons for the symptoms. Participants conceptualized the reasons as being stress, feeling under pressure, and thinking too much, whilst their family members conceptualized the main reason as being vulnerable.

3.2.3. Theme 3: Coping Strategies with Symptoms

The participants described their coping strategies for the somatic symptoms. All of the participants mentioned that they engaged in these four coping strategies: (i) *expecting emotional intimacy from family members*, (ii) *empathic and compassionate sharing with friends*, (iii) *personal coping strategies, and (iv) medical help-seeking*.

3.2.3.1. Expecting Emotional Intimacy from Family Members

All the participants mentioned that one of their strategies for coping with somatic symptoms was sharing the symptom experience with their family members. Family members were the parents (mother and father) of the participants in all cases.

The participants explained that they shared the somatic symptoms that they experience for the purpose of being understood rather than finding a solution. They mentioned that they just wanted to share the experience because it was *"a sign of emotional sharing and intimacy"*. They did not expect to hear any advice to handle the symptoms but just wanted to be listened to. However, they explained that their parents were trying to give advice and suggestions to handle the symptoms. Those suggestions were either *medical advice* or *emotional advice*. Eight participants declared that their parents gave medical advice such as taking a pill (eg. a painkiller or a gastroprotective pill) and consulting a doctor, while two participants mentioned that their parents gave emotional advice such as becoming calm and relaxed, and not thinking too much about the symptoms. Despite the different types of advice, all the participants declared that it would be better if their parents said that they understood what a tough experience those symptoms were by feeling empathy for the participants and showing compassion toward them. For example, a male participant with heartburn and nausea mentioned that his mother gave medical advice to him whilst he was not looking for such a suggestion for his symptoms, but just wanted to share his experience to feel understood and emotionally supported:

> I usually shared the symptoms that I experienced with my mother in the past… I just wanted to share the sensations and feelings in response to those symptoms. I did not look for any advice or a suggestion for my symptoms. She listened to me carefully and then always gave me some advice to handle those symptoms. She suggested I take a gastroprotective pill and then consult a doctor if the symptoms lasted. The problem is I already knew that I could take a pill or consult a doctor, it is an obvious solution. I know her intention is to make me relaxed but it is not the thing that I was looking for. I just expected her to be there for me, listen to me carefully and say something that showed she had empathy for me.

Similarly, a female participant with fainting symptom declared that she shared her symptom experience in order to get emotional support rather than to receive a suggestion:

> My parents could not advise me to consult a doctor for fainting, because I have already consulted one and no physical reason was found. I just wanted to have

> their emotional support… I wanted them to understand how tough the experience is… And I also wished them to understand that it is out of my control. I know that they know that fainting is not something that I can create or control but still they give advice such as "Do not think too much about it. Once you think and focus on it, you experience it more"… I know their intention is supporting me and making me feel confident, but it is not working for me… I would feel better if they listened to me, said that they understood how tough it is and showed compassion to me.

As well as being understood, despite the different somatic symptoms, the participants mentioned that their parents tended to give advice on how to handle the symptoms. Those symptoms could be either medical or emotional advice which, in any case, were not expected and did not work for the participants. The participants explained that they wanted to feel that their parents understood how tough it was to experience those symptoms by having empathy and compassion.

3.2.3.2. Empathic and Compassionate Sharing with Friends

All participants mentioned that they feel more comfortable while sharing their symptom experience with their friends rather than their family members. The participants declared that their friends also gave them medical advice to handle the symptoms, but described friends as *more empathic and compassionate* to them. Despite the different symptoms, all the participants explained that they felt that their friends listened to them more empathically, which was conceptualized as having more eye contact, careful listening, and verbal mirroring, and then giving medical advice.

A female participant with heartburn, nausea, palpitation and headache explained that she shared symptoms more comfortably with her friends because her family members could be more demanding by advising her not to think too much about the symptoms:

> I know that the intention of my parents is wishing the best for me but the way that they gave advice is really challenging. They wanted me not to think too much about the symptoms, but it is not under my control. I know thinking too much of the symptoms can make the experience worse, but saying "Do not think

> too much about the symptoms" does not help at all. It sounds demanding to me. However, my friends do not address the experience like that. When I tell them the symptoms, we have frequent eye contact and I feel that they are listening to me carefully. I feel that because they say my sentences back to me in their own words. Even if they give me medical advice too like my parents, they give it at the end of the conversation which makes me feel better. I feel that I have a space for my problems…

In a similar manner, a male participant with heartburn explained that his parents may not welcome talk of these symptoms, whilst his friends show understanding and sometimes have "sad face" expressions which are crucial signs of empathy and compassion to him:

> I do not want to be unfair to my parents, I know that they do the best that they can… However sometimes I do feel that my symptom experience is unwelcome in my family. I feel that because whenever I want to talk about my symptom experience, I feel tension in the room. I do not know how to explain it… Whenever I want to share my symptoms with my parents, I see restless expression in their faces. They give me medical advice such as taking a gastroprotective pill or consulting a doctor, but they give that advice so abruptly which makes me think that they want to end the conversation as soon as possible. However, with my friends I can see an understanding expression on their faces. Sometimes I even see a sad expression on their faces, which shows me that they are sorry for me and feel compassion. They listen to me more carefully and ask detailed questions about my symptom experience and possible ways to make me comfortable. I really feel that they have empathy for me.

As well as being understood, the participants were more comfortable with sharing symptoms with their friends, and thought that they have more capacity for sharing. Having frequent eye contact, verbal mirroring, careful listening and not giving abrupt medical advice made participants feel understood and emotionally fostered. It can be concluded that the participants did not expect medical or emotional advice in the first place but did expect to be shown empathy and compassion.

3.2.3.3. Personal Coping Strategies

Participants explained their personal coping strategies for somatic symptoms. Six participants (four females and two males, with heartburn and nausea symptoms)

declared that they used *self distraction,* and distract themselves by focusing on things that they like. Two participants (a female participant with heartburn, nausea, palpitation and headache, and a male participant with heartburn) explained that they engaged in *inner speech* to soothe themselves. A female participant with fainting as a symptom mentioned that she *prayed*. A female participant with heartburn declared that she *meditated*.

Those participants who engaged in self-distraction explained that whenever their symptoms got intense, they focused on things that they like and tried to distance themselves from their symptoms. The participants declared that they engage in their hobbies. Hobbies were exemplified as watching a comedy series or film, reading a book or playing a game. A female participant explained that once her attention was paid to a different topic than the symptoms, she tended to feel the symptoms less intensely:

> Once stressed, I experience heartburn terribly. My stomach is burning all the time and nothing easily soothes it, including gastroprotective pills. It is very tough for me to experience because it captures my attention easily. I can easily find that I am only thinking of heartburn and nothing else… In these situations, I try to focus on something else which would make me laugh. Generally, I watch a comedy-series (*Friends*) so that my attention is paid to the TV. Once I start to laugh, I feel the heartburn less intensely… Even if I know all the episodes of the series, it is interesting that this strategy works all the time.

Similarly, a male participant explained that once his attention was drawn to something else, he began to sense the symptoms less:

> Heartburn is always followed with nausea, which is very uncomfortable for me. At those times, I can barely focus on anything else and I get literally stuck in the symptoms. Once I am aware of the fact that I am stuck in the symptoms, I pick up a book and try to read it. At the beginning, I am really struggling but by reading each sentence I realize that my attention is drawn to the book. It really helps me because I cannot focus on two things at a time and once I am reading, my attention is drawn there. So, I could not think of the symptoms even if I wanted to…

It can be said that the participants who use such a self-distraction strategy benefitted from paying attention to something else that captures their attention.

Thus, attention cannot be drawn to two things intensely at a time, so that the symptoms were kept in the background in their mind.

The participants who declared that they engaged in inner speech explained why they were talking with themselves by trying to suggest to themselves that the symptoms would vanish soon and everything would be okay. A female participant with palpitation and headache explained that it was very tough to experience those symptoms, and she needed to hear that those symptoms would vanish soon so as to be calmer:

> It is very hard to live with those symptoms. Especially with palpitations… It is a terrible experience to feel an increased and irregular heart rate. At those times, I do really need to know and hear that everything will be okay and that my heart rate will decrease and will be regular. The easiest way to know that is autosuggestion for me. I do talk with myself… I engage in an inner speech and I say to myself that "Everything will be okay soon. You are experiencing something that you do not want and it is totally okay to feel uncomfortable right now. Be patient. Everything will be okay soon and your heart rate will decrease and will be regular. Just take a deep breath…" It always works. My heart rate decreases within approximately 5 minutes.

It can be understood that this inner speech is formed of autosuggestion in which the participant does not suggest taking a pill or consulting a doctor as her parents did. It could be also noted out that, as the participants declared that they wanted to feel empathy and compassion, this inner speech was a way of being empathic and compassionate toward the self.

In a similar manner, a female participant with heartburn declared that she meditated as a personal coping strategy, and she explained the reason why it works as showing herself compassion:

> When my stomach is burning, the first thing that I do to cope with it is meditating. Meditation soothes me and somehow soothes the heartburn… I think that showing self-compassion to myself is the key. Once I show compassion to myself, I give space to myself to experience a thing which is discomforting, that is heartburn in this case… It does not mean that I give myself a space in order to be stuck with the symptom… Meditation helps me to realize my attitude toward heartburn. I realize that once I do not welcome it, it

> gets powerful. But when I have a more compassionate way of welcoming it, it is no longer an enemy for me… So that I can easily live with it and continue whatever task I am doing. This is a very functional and helpful way of coping for me.

While showing self compassion by inner speech and meditation were helpful for some participants, a female participant who had an experience of fainting explained that praying was very helpful for her:

> After the black-outs, I am very stressed. I cannot focus on anything for two or three days. It is such a strong experience, as if my mind is completely empty. At those times, I pray. I talk with God. I ask for help, strength, and patience. I pray five or six times in a day. It really makes me relaxed because I do believe in God; he will help me to cope with it.

It could be pointed out that participants engaged in personal coping strategies either by distracting themselves, or by reminding themselves that their symptoms are temporary, or by showing compassion to themselves, or by believing that God will help them. Participants had their own personal resources and despite their different forms, all these personal resources for coping were declared to be helpful for them.

3.2.3.4. Medical Help Seeking History and Future Attitudes

All the participants declared that they had engaged in medical help-seeking behaviors in the past. They mentioned that they consulted a medical doctor because of their symptoms in the previous two years, but none of the participants had consulted one in the last six months.

Nine participants who suffered from heartburn and nausea declared that they had consulted a gastroenterologist and were prescribed gastroprotective pills. Three participants of those nine declared that they were sent for an endoscopy and no medical disease was found (such as ulcer, gastritis, reflux etc.). All the participants with heartburn and nausea also declared that their gastroenterologists

said “The problem seems to have a psychological basis” yet none of them consulted a psychiatrist or psychologist.

One participant with the symptom of fainting mentioned that she consulted a neurologist two years before and was sent for a brain scan (fMRI), yet no medical condition was found. She declared that the neurologist referred her to a psychiatrist. She was prescribed an antidepressant (Lustral) and took it for a year. She had not been taking the antidepressant for the past year, and did not have any psychotherapy session.

Seven participants (five females, two males) with symptoms of heartburn and nausea, and one female participant with symptoms of fainting mentioned that they were planning to consult a psychologist soon. For example, a female participant with heartburn and nausea explained that she had difficulties in coping with stress and wanted to have some support for it:

> I think that stress is the reason for my heartburn and nausea. Last year, I consulted a gastroenterologist and he sent me for an endoscopy but no medical condition was found. He said that the reason for the heartburn and nausea might be psychological. I agreed with him because once I feel stressed, those symptoms appear. I am planning to consult a psychologist. I think that I really need to know how to cope with stress effectively.

Similarly, a participant with the symptom of fainting explained that she needed psychological support to cope with the fainting:

> As I said before, I do think that stress is both the reason and the result of fainting. Once I feel stressed, I faint and once I faint, I feel more stressed. In any case, it is very tough to cope with it. I took antidepressants for a year and stopped taking them last year. I do not want to take antidepressants again because pills could not solve the problem permanently. I really need to know how to cope with stress in a functional way.

As can be seen, all ten participants were told that their symptoms might be psychological. However, three (two females, one male) of those participants did not mention that they would consult a psychiatrist or psychologist. When they

were asked whether they are thinking of consulting a psychiatrist or psychologist, they mentioned that they might think of it in the future but until then they would try to cope with the symptoms by themselves. For example, a male participant with heartburn and nausea explained that he would continue distracting himself and if this strategy would not work one day then he would think of consulting a psychologist:

> Until now, I have coped with heartburn and nausea by distracting myself. Once I feel my stomach is getting upset, I pick up a book and try to concentrate on it. It does work. I know that the gastroenterologist told me that the symptoms might be psychological, and yes maybe he is right. But until now my strategy of distracting myself works. So, I do not need any extra strategy right now. But, of course, if this strategy does not work in the future, I will consult a psychologist, for sure.

Thus, it could be concluded that all the participants consulted a medical doctor and no medical condition was found as a reason for the symptoms. Even if all the participants were told that their symptoms might have a psychological basis, 70% of the participants were willing to look for psychological support, whilst 30% of the participants were not for now.

CHAPTER 4

DISCUSSION

4.1. Discussion of Quantitative Results

The purpose of the quantitative part of the current study was to reveal possible predictors of somatic symptoms in the non-patient population. Compatible with previous studies, the variables age, SES, emotional non-expressiveness, depression, anxiety, phobic anxiety, obsessive-compulsiveness, hostility, interpersonal sensitivity, paranoid ideation, psychoticism, individualism and collectivism were assessed as predictors of somatic symptoms. Hierarchical multiple regression analysis ran in three stages.

In the first stage, the variables age, SES and emotional non-expressiveness were added. Model 1 accounted for 9.5% of variance in somatic symptoms. In the second stage, the variables individualism and collectivism were introduced, and Model 2 accounted for 11.3% of the variance in somatic symptoms. Considering the R^2 change, model 2 significantly contributed 1.8% additional variance in somatic symptoms. In the last stage, psychological variables were introduced. In other words, the variables depression, anxiety, phobic anxiety, obsessive compulsiveness, hostility, interpersonal sensitivity, paranoid ideation, and psychoticism were added into the model. Model 3 accounted for 51.2% of the variance in somatic symptoms and contributed 39.9% additional variance. Age, SES, individualism, collectivism, anxiety, phobic anxiety, and obsessive compulsiveness were significant predictors which was consistent with previous studies (Angel & Guarnaccia, 1989; Beutel et al., 2020; Bohman et al., 2012; Casper et al., 1985; Chang et al., 2017; Cohen et al., 2013; Desai & Chaturvedi, 2017; Escobar et al., 1987; Ginsburg et al., 2006; Groen et al., 2020; Keyes and

Ryff, 2003; Li et al., 2005; Mojaverian et al., 2012; Nummi et al., 2017; Reich et al., 2015; Romero-Acosto et al., 2013; Zhou et al., 2011).

Age was one of the significant predictors of somatic symptoms in the current study as hypothesized. It was found to be positively correlated with somatic symptoms, which means that with increased age, somatic symptoms tended to increase. The result was compatible with previous studies. Previous studies showed that increased age has been associated with somatic symptoms, and this association showed itself beginning from childhood (Beutel et al., 2020; Bohman et al., 2012; Casper et al., 1985; Cohen et al., 2013; Ginsburg et al., 2006; Li et al., 2005; Nummi et al., 2017; Romero-Acosto et al., 2013). For instance, adolescents ($\overline{x}$ age = 16) tend to have more somatic symptoms than children ($\overline{x}$ age = 8) in the non-patient population (Romero-Acosto et al., 2013). In other words, whilst 52.1% of adolescents suffer from somatic symptoms, only 26.8% of children report somatic symptoms. Additionally, longitudinal studies revealed that somatic symptoms increase from adolescence to adulthood, as well (Beutel et al., 2020; Nummi et al., 2017).

There has been an on-going debate on possible reasons for the relationship between age and somatic symptoms (Casper et al., 1985; Li et al., 2005; Nummi et al., 2017). Previous studies suggested that the increased somatic symptoms with age could have resulted from a combination of different variables. For instance, it was shown that middle-aged women tend to experience more somatic symptoms if they are unemployed, overweight, less educated, not engaging in exercise, or suffering from a cardiovascular disorder (Li et al., 2005). Similarly, previous studies also revealed that somatic symptoms tend to increase when age and the severity of psychological disorder increases (Casper et al., 1985; Li et al., 2005). In other words, increased age may interact with other variables such as psychological problems as it leads to increased somatic symptoms. The results of the current study could also provide tentative support for this. It was revealed that age was not one of the significant predictors in Model 1 and Model 2, where psychological variables were not introduced, but became significant at the third

step where psychological variables were also entered into the equation. Previous studies revealed that individuals tend to experience somatic symptoms more often with increased age, if they also suffer from depressive and anxiety symptoms (Casper et al., 1985; Li et al., 2005; Nummi et al., 2017). This interaction could signify that age has been one of the risk factors for somatic symptom experience when other variables added into the account. In other words, age itself may not be a risk factor for somatic symptoms but needs to have other diverse factors in order to reveal its effect. The same phenomenon can be true for the current study. In Model 3, age was one of the significant predictors of somatic symptoms where psychological variables were added and variables anxiety, phobic anxiety and obsessive-compulsiveness were significant. It could be said that anxiety, phobic anxiety and obsessive-compulsive symptoms play crucial role for the variable age to reveal its effect on somatic symptoms. To put it simple, it can be also mentioned that individuals who are older and suffer from anxiety, phobic anxiety or obsessive-compulsive symptoms can be said to have higher risk of experiencing somatic symptoms rather than individuals with older age without any anxiety, phobic anxiety and obsessive-compulsive symptoms. Thus, clinicans could keep in mind that individuals with older age and somatic symptoms could have anxiety, phobic anxiety and obsessive-compulsive symptoms as an underlying reason (The detailed clinical implication relevant to this discussion could be seen in *Clinical Implications*). In the current study, other predictors of somatic symptoms were anxiety and phobic anxiety, which may contribute to the association between increased age and increased somatic symptoms in the current population, as previous studies suggested. Further research may contribute more to this suggestion.

As noted out before, in the last step of multiple hierarchical regression, psychological variables were added into the model. It was revealed that, in the Model 3, psychological variables explained the majority of variance in somatic symptoms. Previous studies showed that certain psychological disorders (eg. generalized anxiety disorder, panic disorder, phobic anxiety, major depressive disorder, and obsessive-compulsiveness) were tightly linked with increased

somatic symptoms (Gureje el at., 1997; Malorqui-Bogue et al., 2016; Russo et al., 1994). However, none of the previous studies run a comprehensive analysis where other variables (eg. age, SES, emotional non-expressiveness, cultural variables etc.) besides the psychological variables were added into the model simultaneously. Thus, it can be said that previous studies showed that psychological disorders predict somatic symptoms, but those studies remained limited for revealing that psychological disorders explain the majority of variance in somatic symptoms besides other predictors. In other words, the current finding signified that, psychological variables (i.e anxiety, phobic anxiety and specifically obsessive compulesiveness in the present study) were the variables that contribute to the variance in somatic symptoms most. This result could be interpreted as the phenomenon that somatic symptoms tend to have stronger link with psychological variables rather than demographic and psychocultural variables. In other words, this finding could be also said to show that somatic symptoms have been fruits of psychological disorders which could shed light onto the management of symptoms (see *Clinical Implications*).

Anxiety and phobic anxiety were other significant predictors of somatic symptoms in the current study, as was hypothesized and supported by the literature. Previous studies revealed that not only anxiety disorders but also anxiety symptoms in the non-patient population contribute to somatic symptoms (Malorqui-Bogue et al., 2016). In other words, not only individuals with a diagnosis of anxiety disorder (i.e anxiety disorder, panic disorder, phobias etc.), but also individuals without a diagnosis of anxiety disorder but who have anxiety symptoms tend to experience more somatic symptoms (Katton, 1994; Malorqui-Bogue et al. 2016). As mentioned before, the sample of the current study was not the patient population, which means that none of the participants had a diagnosis of anxiety disorders. Thus, it can be concluded that anxiety and phobic anxiety were one of the significant predictors of somatic symptoms, even though the sample consisted of non-patients. The finding was compatible with the literature. However, for the non-patient population, the opposite was true for depression.

Depression was not one of the predictors of somatic symptoms in the current study. Previously, the association between depressive symptoms and somatic symptoms was studied with individuals who have major depressive disorder (MDD). Previous studies showed that major depressive disorder (MDD) was the most somatizated psychological disorder not only in the adult population, but also in children and the adolescent population (Gureje et al., 1997; Russo et al., 1994; Simms et al., 2012). It was revealed that 69% of individuals with MDD reported somatic symptoms and 50% of those declared experiencing at least two somatic symptoms (Simms et al., 2012; Simon et al., 1999). However, there were a limited number of studies that revealed insignificant association between depressive symptoms without a diagnosis of MDD and somatic symptoms (Cicone, Just, & Bandiva, 1996; Kalibotseva & Leong, 2018; Krause, Reed, & McArdle, 2009). As mentioned before, one of the goals of the study was to reveal the association between depressive symptoms and somatic symptoms in the non-patient population. As hypothesized, depressive symptoms were not one of the predictors of somatic symptoms. Thus, it can be concluded that depression may be associated with somatic symptoms only in the patient population, but not in the non-patient population. A possible reason could be the phenomenon that individuals with MDD are already afraid of a possible stigmatization of being mentally ill (Kuruvilla & Jacob, 2012; Raguram et al., 1996). Thus, having more somatic symptoms related to MDD could be a safer way to eliminate a possible stigmatization. On the other hand, individuals who have depressive symptoms but not a diagnosis of MDD, may not need to convey their symptoms into somatic symptoms because their risk of a possible stigmatization is lower. Further research may shed light onto this phenomenon which may also contribute to catching early signs of MDD through somatizated depressive symptoms.

As hypothesized, obsessive compulsiveness was found to be one of the predictors of somatic symptoms. As mentioned before, data were collected online under the circumstances of the COVID-19 pandemic crisis and quarantine between March and June, 2019. Several studies revealed that the COVID-19

pandemic crisis has been impacting the psychological wellbeing of individuals and it specifically increases the anxiety of contamination that could be one of the main concerns in obsessive-compulsiveness (Sheu, McKay, & Storch, 2020). It was also revealed that obsessive-compulsive symptoms in the non-patient population have been increasing under pandemic conditions (Shue et al., 2020; Shevlin et al., 2002). Moreover, other studies showed that moderate to high levels of anxiety of contamination during the pandemic is also associated with somatic symptoms (Colizzi et al., 2020; Liu, Liu, & Liu, 2020; Shevlin et al., 2020). In a comprehensive study that was run in The United Kingdom with a large representative adult sample (N = 2.025), it was revealed that moderate to high levels of anxiety and obsessive-compulsiveness associated with COVID-19 were significantly associated with somatic symptoms, particularly gastrointestinal and fatigue symptoms (Shevlin et al., 2020). In another study that was conducted in China, it was shown that 34.85% of college students suffer from somatic symptoms associated with anxiety of contamination during the COVID-19 pandemic (Liu et al., 2020). Thus, it can be concluded that studies that were run under the COVID-19 pandemic conditions showed that the anxiety of contamination and obsessive-compulsiveness linked to it (e.g. washing hands and using hand sanitizers repeatedly) increased significantly, which has been associated with somatic symptoms. In this regard, it was not surprising to reveal obsessive-compulsiveness as the strongest predictor of somatic symptoms in the current study that was run under COVID-19 pandemic conditions. Since the strongest predictor of somatic symptoms was obsessive-compulsiveness in the current study, the COVID-19 pandemic would be the main underlying factor that leads to the association with somatic symptoms. Further statistical analysis may be needed to investigate the suggestion.

Additionally, previous studies on somatic symptoms were inconsistent in terms of gender differences (Barsky et al., 1990; Fearon et al., 1996; Fowler-Kelly & Lander, 1991; Hernandez & Kelner, 1992). On the one hand, some studies revealed that females tend to experience more somatic symptoms than males beginning at age 13. On the other hand, other studies showed that there was no

significant difference in terms of somatic symptoms between males and females after age 18 (Barsky et al., 1990; Fearon et al., 1996; Fowler-Kelly & Lander, 1991; Hernandez & Kelner, 1992). Gender did not have significant effect on somatic symptoms and thus not introduced in any stages of multiple hierarchical regression. As mentioned before, the reason may be linked with the current pandemic, where many more individuals have somatic symptoms due to their discomfort, regardless of gender differences. However, the same logic may not be true for SES and cultural variables (i.e individualism and collectivism).

SES was negatively correlated with somatic symptoms in the present study. In other words, individuals with lower SES tended to experience more somatic symptoms. Even if COVID-19 discomfort was true for individuals with all levels of SES, it was shown that individuals with lower SES had more somatic symptoms. Previous studies showed that regardless of differences in other life conditions (such as culture, age, pandemics), SES has always been negatively associated with somatic symptoms (Angel & Guarnaccia, 1989; Escobar et al., 1987; Obimakind et al., 2015; San Sebastian et al., 2015). Individuals with lower SES have more somatic symptom experience than individuals with middle and high SES in any condition (Huure et al., 2005). For instance, a longitudinal study in Finland showed that somatic symptoms experience increased whenever SES decreased (Huure et al., 2005). Similarly, previous studies also revealed that, lower SES predicted more somatic symptom experience in both individualistic and collectivistic cultures (Gureje et al., 1997). In other words, lower SES has always been a trigger for somatic symptoms, regardless of other advantageous conditions (such as younger age and individualistic cultural background) (Huure et al., 2005; San Sebastian et al., 2015). Previous studies showed that individuals from lower SES tended to express their emotions and psychological distress through bodily sensations (Chandler et al., 2019; Huure et al., 2005; Obimakinde et al., 2015) because those individuals have limited access to psychiatric services (San Sebastian, 2015). Thus, it was assumed that individuals from lower SES tended to convey their psychological distress into bodily sensations which are symptoms that can lead individuals to medical services, instead of psychiatric

services. Additionally, previous studies revealed that individuals from lower SES tended to have difficulties in understanding emotions and, thus, have lower emotional awareness (Lane, Sechrest, & Riedel, 1998). Significant negative correlation between lower emotional awareness and SES was revealed (Lane et al., 1998). Thus, it can be concluded that individuals from lower SES have difficulties in understanding emotions and having lower emotional awareness which would lead to have somatic symptoms that are transformed psychological distress. This argument could be also true for the short interviews where individuals from lower SES refused to attend to interviews. In other words, those individuals could refuse interviews where they needed to talk about their emotions because they did not have emotional awareness.

In the current study, SES was a construct in which not only level of income and educational level, but also total income of family members, total education year of family members, profession and occupation of family members, and ownership of real estate were also included. Thus, it can be concluded that the current finding that lower SES has been associated with more somatic symptom experience showed that not only educational level and income but also total income of family members, total education year of family members, profession and occupation of family members and ownership of real estate were also associated with somatic symptom experience. Thus, it cannot be concluded that only educational level and level of income were associated with somatic symptoms which was suggested in previous studies where SES was only assessed through educational level and level of income (Baitha, Ranjan, Sinha-Deb, Bauddh, Singh, Kaloiya, Kumar & Sahu, 2020; Gureje et al., 1997). It could be said to be one of the strengths of the present study because the relationship between family members' level of income, educational status, profession and occupation, and somatic symptoms were also revealed which provided a more comprehensive understanding of somatic symptoms. Addition to that, 70% of participants in the present study were graduates from college. Previous studies showed that formal education less than 5-years has been associated with increased somatic symptoms despite of different cultures (Gureje

et al., 1997). Similarly, less education found to increase the likelihood of higher levels of somatic symptom severity (Beutel et al., 2020; Halpern-Manners, Schnobel, Hernandez, Silberg & Eaves, 2016). The possible reason of this phenomenon has been argued as the fact that education supposed to improve individuals' skills and empower them with a more functional cooping mechanism (Halpern-Manners et al., 2020). Thus, less education was theoritized to result in dysfunctional coping mechanism with psychosocial distress which could result in somatic symptoms in turn. In this manner, it can be suggested that if more individuals with less education could participate in the study, the link between less education and subjective somatic symptom experience could be directly observed via short interviews. In other words, if individuals with less education participate in short interviews, the link between educational status and dysfunctional coping with psychosocial ditress and its role on somatic symptoms would be revelaed.

For cultural variables, it was revealed that both individualism and collectivism were predictors of somatic symptoms. Like SES, despite the pandemic circumstances, the cultural background of individuals did play a crucial role in the somatic symptom experience. The reason may be the phenomenon that culture has been a construct that is carried over from generation to generation and that encompasses the basis of everyday behaviors and practices, including values, beliefs and knowledge (American Psychiatric Association, 2021). Thus, cultural influences would not be predicted to change easily, even in a time of global health crisis. In the same manner, as hypothesized, both individualism and collectivism were found to be predictors of somatic symptoms. Individualism was negatively correlated with somatic symptoms, while the opposite was true of collectivism. In other words, individuals from an individualistic background tended to experience fewer somatic symptoms, whilst individuals from a collectivistic background tended to experience more somatic symptoms. Previous studies in the literature were compatible with the current study's findings as well (Desai & Chaturvedi, 2017; Katon et al., 1984; Keyes & Ryff, 2003; Kleinman & Kleinman, 1985; Parsons & Wakeley, 1991). These findings

were also consistent with previous studies. Researchers showed that individuals with individualistic cultural backgrounds tended to verbalize their inner conflicts and psychological distress more often because of not being afraid of stigmatization. Thus, they do not need to transform their inner conflict into somatic symptoms because verbalization of inner conflict and talking about psychological health has been accepted in individualistic cultures (Chang et al., 2017; Desai & Chaturvedi, 2017; Keyes and Ryff, 2003; Mojaverian et al., 2012; Reich et al., 2015; Zhou et al., 2011). As a result, individuals with individualistic backgrounds tend to experience fewer somatic symptoms. The reason for this phenomenon was suggested as a fear of possible stigmatization in collectivistic cultures (Desai & Chaturvedi, 2017; Kirmayer & Young, 1994; Kleinman, 1988; Leff, 1989; Karasz, 2005; Yeşilbaş, 2008). It has been suggested that individuals in collectivistic cultures may not be able to explicitly and verbally express their emotional distress because of a possible risk of labelling (Desai & Chaturvedi, 2017). Therefore, individuals with emotional distress convey the distress through physical symptoms, which would be adaptive and more acceptable in collectivistic cultures (Desai & Chaturvedi, 2017). Additionally, the current study also aimed to investigate the subjective conceptualization of symptoms. Thus, the perceived reasons, manifestation and experience of somatic symptoms were assessed through short interviews. The reason for the differences in somatic symptom experience among individualistic and collectivistic individuals is discussed in detail in *Discussion of Short Interviews*, below.

In addition to the role of cultural differences in somatic symptoms, emotional non-expressiveness was also considered as a crucial predictor of somatic symptoms in literature (Fournier et al., 2018; Gul & Ahmad, 2014; Okur-Güney et al., 2019; Steffen et al., 2015; Urbanek et al., 2014; Waller & Scheidt, 2004). Previous studies suggested that patients with somatoform disorders reported a lower capacity of non-verbal emotional expressiveness (Waller & Scheidt, 2004). Similarly, patients with irritable bowel syndrome expressed fewer verbal depressive and anxiety symptoms but tended to suffer more from somatic symptoms (Fournier et al., 2018). Compatible with previous studies, the current

study hypothesized that emotional non-expressiveness would be a predictor of somatic symptoms. However, findings showed that the opposite was true. Emotional non-expressiveness was not a predictor of somatic symptoms in the current study at any stage of multiple hierarchical regression. The reason would be the phenomenon that emotional expressiveness was conceptualized as an ability to communicate one's own emotions (Riggio, 1986; Riggio & Riggio, 2001; Riggio & Riggio, 2002). This ability would be verbal and non-verbal, through gestures and mimics (Riggio & Riggio, 2002). Yet, in the current study, it was observed that participants who had higher somatic symptoms (who were invited to the short interviews) seemed to be unaware of their own emotions or unable to differentiate their emotions from their bodily sensations. This observation and interpretation was discussed in detail in *Discussion of Short Interviews* section below. Thus, the reason may not be found in the phenomenon that participants did not express their emotions and had emotional non-expressiveness but may be explained by the fact that they were not aware of their emotions at all. Further research may consist of a replication of the current study with alexithymia and/or emotional awareness variables, rather than emotional non-expressiveness variable. Previous studies revealed that is a strong association between alexithymia and somatic symptoms (Nakao & Takeuchi, 2018; Taylor, Parker, Bagby, & Acklin, 1992), and emotional awareness and somatic symptoms (Bagby, Taylor, & Parker, 1994; Mankus, Boden, & Thompson, 2015).

4.2. Discussion of Short Interviews

At the very beginning of the study, participants were informed that they may be invited to participate in a short interview according to the results of the quantitative part. Participants who scored equal to or higher than 1.5 in the Somatization Subscale in the BSI were invited to the short interviews. A total of45 participants met the criteria for the short interviews, yet 33 did not reveal their contact information at the very beginning, and thus they could not be reached. Those 33 participants were from low SES and collectivistic

backgrounds, which could be interpreted as them not giving their contact information because of fear of a possible stigmatization, as previous studies suggest (Kuruvilla & Jacob, 2012; Raguram et al., 1996). Additionally, those participants may not have provided their contact information because of being ashamed of the symptoms, which was also suggested by previous studies (Baarnheilm & Ekblad, 2000). Another alternative could be the phenomenon that they may not have given their contact information because they may not know how to communicate their emotions, as previous studies suggest (Aiarzaguena et al., 2013; Lanzara et al., 2019; Raguram et al., 1996). Moreover, two participants refused to be interviewed without divulging any specific reason.

The remaining 10 participants were interviewed. Four of the participants had middle range SES whilst six had high range SES. All of them were from collectivistic backgrounds, as indicated by having higher collectivism scores than individualism scores on IND-COL Scale (Öztürk et al., 2019). Even though the interviews lasted between 35 and 55 minutes (average 41.5 minutes), the interviews were not in-depth. The participants gave superficial answers, and even if the researcher asked them to go into more detail, none of the participants managed to do that. Compatible with the literature, there could be two reasons for this.

The first one could be associated with culture. As previous studies suggested, individuals from collectivistic cultures tend to have a fear of possible stigmatization and thus might hesitate to verbalize their distress (Aiarzaguena et al., 2013; Lanzara et al., 2019; and Raguram et al., 1996). Previous studies revealed that a tendency to verbally report the distress was influenced by the degree of stigma associated with “being mentally ill” (Raguram et al., 1996). It was also shown that individuals from collectivistic cultures could also feel shame due to their symptoms, because their symptoms may not be accepted in their culture (Aiarzaguena et al., 2013; Baarnheilm et al., 2000; Lanzara et al., 2019; Raguram et al., 1996). Thus, participants may not feel comfortable to talk about

their symptoms because of cultural issues and thus, the interviews were not in-depth.

The second reason could be related to alexithymia and emotional awareness. As noted before, emotional non-expressiveness was not found to be one of the predictors of somatic symptoms in the current study. The reason was discussed as the phenomenon that participants may not even recognize and may not be aware of their emotions, thus may not distinguish between emotions and somatic symptoms. As a result, the reason for giving superficial answers may not be emotional non-expressiveness but may be the inability to recognize and be aware of emotions at all. In this scope, previous studies found a strong correlation between alexithymia, emotional awareness and somatic symptoms (Bagby et al., 1994; Mankus et al., 2015; Nakao & Takeuchi, 2018; Taylor et al., 1992). It was suggested that because an individual is not aware of his/her emotions, he/she could not understand the link between emotions and somatic symptoms. This suggestion could also be true for the current study. The result that emotional non-expressiveness was not a predictor of somatic symptoms may support this suggestion as well. Further research could shed light onto this argument.

The same suggestion could be also true for the conceptualization of the perceived reason for somatic symptoms. All participants mentioned that *stress* and rumination (i.e *thinking too much)* were both their own perceived reasons. Despite the different somatic symptoms, all participants declared that *stress* and *thinking too much* were the perceived reason for their somatic symptoms. When the researcher asked them what they meant exactly by *stress* and *thinking too much*, the answers were again superficial. The participants declared that there is somehow a link between stress and their symptoms, but they did not go into more detail about it. Similarly, when they were asked to specify *stress*, none of the participants could describe it or give more detail. All participants mentioned *stress* as any situation where they experience conflict. The situation could be about family, friends, work, or pandemics. But no detailed description was made. Those superficial answers and perceived reasons may also be interpreted as a

result of a lack of emotional awareness. When they were not aware of their emotions deeply, they would not talk more about it. Additionally, even one participant who had fainting as a somatic symptom, perceived *being too emotional* as a reason for her symptoms, and she could not specify what she meant by *being too emotional*. Thus it could also be shown that even if participants could think that they were being emotional, they were not aware of what their emotions were.

Moreover, all participants expressed physical symptoms such as heartburn, nausea (nine participants), and fainting (one participant) without using any idioms of distress that contain emotions as well. None of the participants used any expressions related to the heart, which was suggested as a projection of psychological distress and a common somatic expression among Turkish people (Baarnheilm & Ekblad, 2000). Previous studies showed that *tightness in the chest* was the most common bodily expression of psychological distress (Baarnheilm & Ekblad, 2000; Küey & Güleç, 1995). According to cultural idioms of distress model, alternative modes of distress were expressed in order to indicate distress in relation to personal and cultural meaning (Desai & Chaturvedi, 2017). In other words, psychological distress is expressed in a safer way that is acceptable in the relevant culture. However, in the current study none of the participants declared *tightness in the chest* (*yürek kalkması* or *iç sıkıntısı*) or any other bodily expression that would refer to feelings. So, it can be concluded that participants of the present were not aware of the fact that their symptoms were because of psychological distress, and thus could not talk more about the symptoms in terms of idioms of distress.

Being unaware of emotions and unable to distinguish emotions and bodily sensations could also be the reason for the coping strategies that the participants declared. All the participants declared that one of the coping strategies for dealing with their symptoms was sharing with family members. However, there was an inconsistency between their expectations from family members and their family members' attitudes. The participants mentioned that they were just

expecting to be understood and to feel the intimacy of sharing; however, their family members tried to *solve the problem* and *give medical and emotional advice*. The participants declared that they knew that their family members wanted to help for the participant's own sake but their advice did not work for them. As a reaction, the participants shared their symptoms more often with their friends who listened in the first place and then gave medical advice. It was also interesting that even if the participants explained that what they were looking for was emotional support, they were not aware of it. This could also be interpreted as the phenomenon that they were unable to recognize their emotions and so they could not verbalize that they were actually looking for emotional support. Even if they could not verbalize that they were looking for emotional support, somehow two participants provided partial emotional support to themselves. These two participants declared that they were engaging in inner speech in which they were encouraging themselves and talking with themselves in a compassionate way. Another participant who had a fainting somatic symptom declared that she prayed as a coping strategy which was compatible with the literature. Previous studies found that praying was one of the frequent coping strategies in Turkish culture (Ahmadi, Erbil, Ahmadi & Cetrez, 2019; Canel-Çınarbaş, Çiftçi & Bulgan, 2013). Six participants engaged in self distracting coping strategies such as watching a comedy series, reading a book, or playing a game. It can be concluded that only three participants were partially engaged in an emotional coping mechanism, whilst the remaining six were not. This could also be a sign of the phenomenon that participants were not aware of the link between their emotional state and somatic symptoms.

A similar phenomenon was also true for medical help seeking behaviors. All the participants declared that they had a medical examination for their somatic symptoms. Nine participants mentioned that they visited a gastroenterologist for heartburn and nausea, and one participant mentioned that she had visited a neurologist and then a psychiatrist through the referral of the neurologist. As previous studies suggested, collectivistic individuals tended not to seek a psychologist or psychiatrist when they have somatic symptoms. The reasons

suggested were fear of a possible stigma and shame (Baarnheilm & Eklblad, 2000; Kuruvilla & Jacobs, 2012; Raguram et al., 1996; Wileman et al., 2002). Additionally, another reason was also suggested as them being unaware of the emotional distress and thus they did not believe that the symptoms were because of psychological distress (Wileman et al., 2002). In a qualitative study in which general practitioners were interviewed about their professional experience with patients with somatic symptoms, it was found that patients had a hard time believing that their symptoms were psychological. As a result, those patients were harder to manage and to cooperate with (Wileman et al., 2012).

The same could be true for the current study. All the participants declared that they had visited a medical doctor and did not think of consulting a mental health profession at the beginning, because they believed that the symptoms were purely medical. However, seven participants mentioned that currently they were thinking of consulting a mental health professional because their medical doctors had advised them to do so. It can be understood that, as previous studies suggested, the participants did not think of consulting a mental health professional in the very first place but had later thought of it. However, all the participants declared that medical doctors had advised them to visit a mental health professional approximately two years before and they were still thinking of consulting one. It was interesting that there was a two-year period in which they considered the possibility that their symptoms could be psychological. This could also be interpreted as an obvious difficulty in acceptance, as studies have suggested (Wileman et al., 2012).

In summary, the short interviews showed that the participants were not aware of the fact that their somatic symptoms were psychological. Even if they declared that the reason for their symptoms were *stress* and *thinking too much*, they could not talk more in-depth, because their perception of stress was any kind of situation in which they had a problem, specifically during the COVID-19 pandemic. And similarly, thinking too much was mentioned as if it was not a psychological process but rather a social process, as if they could not stop talking

about it. These findings were compatible with the findings of multiple hierarchical regression analysis, where obsessive-compulsiveness was the strongest predictor of somatic symptoms and emotional non-expressiveness was not a predictor.

4.3. Discussion of Overall Results

The current study revealed that age, SES, individualism, collectivism, anxiety (including phobic anxiety), and obsessive-compulsiveness were significant predictors of somatic symptoms. Obsessive-compulsiveness was the strongest predictor of somatic symptoms. As noted out before, current findings may be affected by COVID-19 pandemics because obsessive-compulsiveness was the strongest predictor of somatic symptoms Previous studies showed that obsessive compulsiveness increase the anxiety of contamination, which is associated with increased somatic symptoms during the global health crisis (Colizzi et al., 2020; Liu et al., 2020; Shevlin et al., 2020). This might explain why obsessive compulsiveness was the strongest predictor of somatic symptoms in the current study.

In the short interviews, even if participants did not explicitly mention obsessive-compulsiveness, the statements that they mentioned were said to be related to obsessive-compulsiveness. For instance, as the perceived reasons of somatic symptoms, all participants mentioned *thinking too much*. *Thinking too much* were explained as constantly having thoughts on symptoms and regularly checking those symptoms whether symptoms appeared, disappeared, increased or decreased. *Thinking too much* could be also conceptualized as rumination as noted out before because rumination has been reffered as obsessive repetition of thoughts and excessively and constantly thinking about the problems (Brown et al., 1990). As understood, participants declared that they were constantly thinking about the somatic symptoms and engage in a checking pattern for somatic symptoms whether symptoms appeared, disappeared, increased or decreased. The declared thinking pattern can be seen to have features of

rumination which is one of the core symptoms of obsessive-compulsiveness (American Psychiatric Assocation, 2013). Thus, it can be said findings of multiple hierarchical regression and short interviews were compatible. Obsessive-compulsiveness was the strongest predictor of somatic symptoms in Model 3 and it was dominantly revealed in the short interviews.

Moreover, it can be also argued that participants may not cope with their ruminating thoughts and thus can convey anxiety into bodily sensations where they feel more comfortable in terms of help-seeking. Addition to that, all participants mentioned that they preferred to share their symptom experience with their friends because their family members can be easily sad about their symptom experience, and thus tried to vanish the symptoms through giving suggestions (eg. advice to take pills etc.). This phenomenon could be also explained through anxiety. Participants may feel anxious when their family members could not listen them as they wished. Thus, they could avoid of sharing symptom experience with family members. In a similar manner, their family members can be anxious about participants' symptom experience and thus could not listen them properly. Family members could give advice about how to eliminate somatic symptoms because they may not feel comfortable and be anxious about the symptoms.

As mentioned before, participants were not willing to talk about their symptom experience in detail. This could be considered a result of inability to identify emotions, instead of being unable to express emotions. This argument was also consistent with the findings of the hierarchical multiple regression where emotional non-expressiveness was not a predictor of somatic symptoms, contrary to the hypothesis. As observed during the short interviews, participants talked about their physical experiences but not about their psychological and emotional experiences, which might be an indication of lack of emotional awareness. Perhaps the participants were not able to distinguish their emotions from their bodily sensations at all and thus were unaware of their emotions. This argument

may be investigated in future studies by replicating current study by adding emotional awareness or alexithymia as a variable.

4.4. Strengths, Limitations and Future Directions

The current study may shed light onto somatic symptomatology in a comprehensive way. Because the study consisted of both quantitative and qualitative aspects, somatic symptoms could be conceptualized in both manners. In the somatic symptom literature, studies were mainly focused on only one aspect of the symptomatology, either in a quantitative or in a qualitative manner. The biggest contribution of the current study could be showing both aspects of symptomatology by estimating predictors and subjective conceptualization.

Other additional strength of the present study in terms of methodology was using IND-COL Scale that was adapted from Oyserman's Scale for Turkish population and thus consisted of culture specific constructs. In other words, it can be said that cultural variables were assessed directly by a culture specific instrument. Moreover, as noted out before, the IND-COL Scale was adapted very recently, in 2019 that could be another strength of the study. In other words, cultural variables were assessed throught current cultural components.

The findings of the current study may be beneficial to understand somatic symptomatology in non-patient population. Previous studies mainly focused on somatic symptom experience of patients who have a diagnosis of psychological disorder, but there are limited number of studies that run with non-patient population. Studies with non-patient population could be advantageous for establishing management strategies. If the manifestation and experience of somatic symptomatology in non-patient population could be understood, medical doctors may easily manage those individuals (for details see *Clinical Implications*).

The biggest limitation of the current study was lack of in-depth interviews. As discussed above, the reason for that could be lack of emotional awareness and/or alexithymia, but whether this has been true is unknown. In this regard, alexithymia or emotional awareness could be included as a predictor variable in future studies, so that whether participants were actually unable to recognize and understand emotions and distinguish between emotions and bodily sensations or whether they were just unwilling to express emotions could be estimated. Besides, alexithymia and/or emotional awareness, because of quarantine, short interviews were run through phone calls which could be another reason of superficial answers.

As mentioned, and discussed above, the data were collected during the COVID-19 pandemic. Thus, a global health crisis may have had an indirect role on the study and thus its results. In other words, whether the obsessive-compulsiveness variable is the *actual* strongest predictor of somatic symptoms in the non-patient population could be controversial. The same result may not be found when the global health crisis ends. Additionally, any scale related to anxiety about pandemic was used which may lead to miss the actual role of pandemic on the findings. Thus, as a future suggestion, the same study could be replicated when the global health crisis ends. Through the replication study, it could be understood whether obsessive compulsiveness is the *actual* strongest predictor of somatic symptoms in the non-patient population. In the same regard, mediation analysis may be run to understand the effect of COVID-19 pandemic on obsessive compulsiveness variable and thus somatic symptoms. Thus, the indirect effect of COVID-19 pandemic on somatic symptoms may be understood.

Lastly, again because of COVID-19 pandemic, participants answered scales via Google Forms. This could cause to have a low SES group which may not be fully representative. Because participants needed to have internet connection to answer scales, individuals who do not have internet connection (i.e. possible participants from villages etc.) could not attend to the study. Additionally, one of

the criteria for SES is number of years of education and individuals with fewer years of education tend to have lower SES (Chandler et al., 2019; Gureje et al., 1997; Huure et al., 2005; Swartz et al., 1989). Individuals with fewer years of education may not know how to use computer and answer scales online. Thus, participants with fewer years of education may not be able to attend to study which may also narrow the representativeness of lower SES group in the study. In the same manner, as noted out before in the *Discussion* section, previous studies showed that individuals with less education tend to experience more somatic symptoms and the underlying reason could be less developed intellectual skills and thus dysfunctional coping attitudes with psychosocial distress. Previous studies also showed that intellectual level has been associated with somatic symptoms and individual with less intellectual capacity tend to experience more somatic symptoms (Kingma, Tak, Huisman, & Rosmalen, 2009). Seventy percent of participants in the current study was college graduates. Thus, the present study sample was limited in order to reveal less educated individuals' somatic symptomatology and subjective symptom experience. Same study could be replicated when pandemics terminates when individuals with less education could be reached easily.

4.5. Clinical Implication

The current study could be advantageous for establishing management strategies. If the manifestation and experience of somatic symptomatology in non-patient population could be understood, medical doctors may easily manage those individuals. Previous studies showed that individuals with somatic symptoms were perceived as the hardest population to manage by medical doctors (Wileman et al., 2002). Medical doctors declared that those individuals have harder time to accept that their bodily symptoms are due to psychological distress, but not because of a medical condition. Thus, those individuals do not trust doctors that examine them, and as a result resist to guidance which is referring to a mental health profession. However, if those individuals may know the possibility that their bodily symptoms could be because of psychological

distress, even if they do not have any diagnosis of psychological disorder, those individuals may easily trust and cooperate with medical doctors. As a result, those individuals may be easily referred to a mental health profession where she/he could understand his/her inner psychological conflicts and distress before any psychological disorder develops.

Additionally, present study showed that, as mentioned before, psychological variables (i.e anxiety, phobic anxiety and obsessive-compulsiveness) explained the majority of variance in somatic symptoms. In other words, it was showed that the biggest reason of somatic symptoms was the psychological condition. Thus, this finding could be directly used in medical settings by medical doctors and mental health professionals. Medical doctors could keep in mind that any somatic symptom could be related to anxiety, phobic anxiety and obsessive-compulsiveness even if patients do not recognize them. Thus, medical doctors could manage the somatic symptoms in a holistic manner by referring those patients to a psychologist and/or psychiatrist. Similarly, mental health professions could have benefits from these findings by assessing anxiety, phobic anxiety and obsessive-compulsiveness in individuals who suffer from somatic symptoms. Thus, the time that would spend to understand the underlying reason of somatic symptoms could be decreased by knowing that anxiety, phobic anxiety and/or obsessive-compulsiveness could be the main underlying. More specifically, for the current times where COVID-19 is still an issue, mental health professions could keep in mind that the most probable underlying reason of somatic symptom would be obsessive-compulsiveness. By having a prori knowledge regarding the underlying reason of somatic symptoms, mental health professionals would decrease the time spend for formulation as well.

A similar argument regarding clinical implication for the finding that age has been a risk factor for somatic symptoms if psychological variables taken into the account could be said. In other words, mental health professions could be suspicious for underlying psychological conditions (such as anxiety, phobic anxiety and obsessive-compulsiveness) for the individuals who are older and

have somatic symptoms. Mental health professions could assess individuals (with somatic symptoms with older age) for anxiety, phobic anxiety and specifically obsessive-compulsiveness even if no explicit anxiety and/or obsessive-compulsive symptom were there.

Currently, the most beneficial psychotherapies for somatic symptoms are cognitive behavioral therapy (CBT) and mindfulness-based therapies (Kroenke, 2007; Kroenke & Swindle, 2000; Sumathipala, 2007; Williams, Russell, & Russell, 2008; Tyrer, Cooper, Salkovskis & Barrett, 2013). In a study, 28,991 patients were screened and 444 were randomly assigned to five-to-ten sessions CBT (Tyrer et al., 2013). It was revealed that patients who assigned to CBT had 2,98 greater point in improvement in health anxiety. A similar finding was found in 34 randomized trials with 3,922 patients with somatic symptoms and CBT was found to be the most effective treatment following by antidepressants (Kroenke, 2007). Previous studies showed that CBT for somatic symptoms is effective because patients learn how to be aware of the somatic symptoms, their links with emotions and functional coping mechanisms (Kroeknke & Swindle, 2000). In the same manner, current study showed that when individuals do not have emotional awareness, they could not talk about their somatic symptoms as well. Thus, current study may be also a crucial guide for clinicians to show that individuals need to not only express their emotions, but, in the first place, be aware of emotions and symptom experience, as CBT helps. Similarly, mindfulness-based therapies were found to be effective for somatic symptoms (Lakhan & Schofield, 2013; Williams et al., 2008). Mindfulness-based therapies focus on increasing insight and awareness (Williams et al., 2008). The insight and awareness for thoughts, feelings, bodily sensations, and behaviors are aimed to be increased (Lakhan & Schofield, 2003). Mindfulness-based therapies were revealed to increase awareness of the distinction between emotions and bodily sensations. In other words, mindfulness-based therapies help individuals to distinguish emotions from bodily sensations and be aware of emotions. Thus, individuals with somatic symptoms have increased awareness and insight for their emotions which could help them to express emotions, as well. In the same manner, current

study showed the importance of emotional awareness. It was showed that, individuals with somatic symptoms may not express their emotions because they may not be aware of their emotions at all. Thus, clinicians may benefit the current findings to understand difference between emotional awareness and emotional expressiveness for somatic symptoms. Current findings may help clinicians to understand that individuals may have somatic symptoms because they do not express their emotions, but they may be not aware of their emotions at all. Thus, clinicians who work with individuals with somatic symptoms may keep in mind that individuals may not be aware of the emotions, and thus, individuals may need to learn emotions at the first place. Once individuals learn to identify emotions and distinguish emotions from bodily sensations, they may learn how to express emotions explicitly.

In the same manner, it may be also concluded that, current study may also contribute to awareness of individuals by revealing ongoing psychological distress that they were not aware of and assumed as a medical condition. Thus, it could be said that, even if participants were argued to be unaware of their emotions, feedback regarding the results may contribute to their awareness, in turn.

Taking everything into consideration, the present study was aimed to understand predictors of somatic symptoms and individuals' subjective conceptualization of those symptoms. Congruent with the aims of the study, findings showed that psychological condition has been the strongest predictor of somatic symptoms. In other words, present study showed that somatic symptoms were mainly the fruits of psychological condition. To be specific, it was showed that anxiety, phobic anxiety and speficially obsessive-compulsiveness predicted somatic symptoms and those variables did also play crucial role to reveal the function of age in somatic symptoms. It was also showed that culture did provide interpretive framework for somatic symptomatology as well. Thus, having an information about the individual's cultural background could be also beneficial to understand and manage the somatic symptoms. The findings could also open a

gate for the role of emotional awareness on somatic symptoms because the present study showed that emotional non-expressiveness did not predict somatic symptoms which was surprising but also a promising finding for future studies. The results of the short interviews can be also helpful to understand individuals' and their significant others' (i.e. family members and friends) conceptualization and attitudes toward somatic symptoms. This could be beneficial to understand the needs of individuals with somatic symptom experience and to put more compassionate into the somatic symptom management strategies.

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APPENDICES

APPENDIX A. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

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21 KASIM 2019

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Doç.Dr. Deniz Canel ÇINARBAŞ

Danışmanlığını yaptığınız **Melisa A. PAKER'in "Bedensel Semptomların Yordayıcıları: Cinsiyet, Yaş, Eğitim Seviyesi, Kültürel Farklılıklar, Duygu İfadesi ve Belirli Bir Duygudurum Bozukluğu Bedensel Semptomların Sebebi Olabilir mi?"** başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **401 ODTU 2019** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prof. Dr. Tülin GENÇÖZ
Başkan

Prof. Dr. Tolga CAN
Üye

Doç.Dr. Pınar KAYGAN
Üye

Dr. Öğr. Üyesi Ali Emre TURGUT
Üye

Dr. Öğr. Üyesi Şerife SEVİNÇ
Üye

Dr. Öğr. Üyesi Müge GÜNDÜZ
Üye

Dr. Öğr. Üyesi Süreyya Özcan KABASAKAL
Üye

APPENDIX B. INFORMED CONSENT FOR SCALES / ARAŞTIRMAYA GÖNÜLLÜ KATILIM FORMU

Sayın Katılımcı;

Bu çalışma Doç. Dr. Deniz Canel Çınarbaş danışmanlığında, ODTÜ Psikoloji Bölümü Klinik Psikoloji Doktora öğrencisi Melisa A. Paker tarafından bedensel şikayetleri olan bireylerin şikayetlerinin olası sebeplerini anlamak amacıyla yürütülmektedir. Bu amaç doğrultusunda, çalışma kapsamında üç adet anketi cevaplanız istenecektir.

Çalışmaya katılım tamamıyla gönüllülük esasına dayanmaktadır ve katılım sırasında herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, cevaplama işini istediğiniz anda bırakmakta serbestsiniz. Katılımınız için şimdiden teşekkür ederiz.

Çalışma hakkında daha fazla bilgi almak için ODTÜ Psikoloji Bölümü öğrencisi Melisa A. Paker (E-posta:melisaaskimpaker@gmail.com) ile iletişim kurabilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

Ad Soyad	Tarih	İmza
_____	----/----/-----	_____

APPENDIX C. INFORMED CONSENT FOR INTERVIEWS / GÖRÜŞMEYE GÖNÜLLÜ KATILIM FORMU

Sayın Katılımcı;

Bu çalışma Doç. Dr. Deniz Canel Çınarbaş danışmanlığında, ODTÜ Psikoloji Bölümü Klinik Psikoloji Doktora öğrencisi Melisa A. Paker tarafından bedensel şikayetleri olan bireylerin şikayetleri nasıl anlamlandırdığını, nerelerden yardım aldığını ve nasıl baş ettiğini araştırmak amacıyla yürütülmektedir.

Bu amaç doğrultusunda, sizlerle yaklaşık bir saat sürecek görüşmeler yapılacaktır. Görüşmeler sırasında daha sonra cevaplarınızın içerik analizi ile değerlendirilmek üzere ses kaydı alınacaktır. Bu çalışmadan elde edilecek bilgiler gizlilik esasına uygun bir biçimde, kişilerin kimlik bilgilerinin kesin gizliliği esas alınarak, sunum ve bilimsel yayınlarda kullanılabilecektir.

Çalışmaya katılım tamamıyla gönüllülük esasına dayanmaktadır ve katılım sırasında herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, cevaplama işini istediğiniz anda bırakmakta serbestsiniz. Katılımınız için şimdiden teşekkür ederiz.

Çalışma hakkında daha fazla bilgi almak için ODTÜ Psikoloji Bölümü öğrencisi Melisa A. Paker (E-posta:melisaaskimpaker@gmail.com) ile iletişim kurabilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

Ad Soyad	Tarih	İmza
_____	----/----/-----	_____

APPENDIX D. DEMOGRAFIK INFORMATION SHEET / DEMOGRAFİK BİLGİ FORMU

Yaşınız:

Doğumda atanan (biyolojik) cinsiyet: Kadın ☐ Erkek ☐

Medeni haliniz:

Bekar ☐ İlişkide ☐ Nişanlı ☐ Evli ☐ Boşanmış ☐ Dul ☐

Eğitim Durumunuz:

İlkokul ☐ Ortaokul ☐ Lise ☐ Ön Lisans ☐ Lisans ☐ Lisansüstü ☐ Diğer ___

Çalışıyor musunuz?: Evet ☐ Hayır ☐

Evet ise mesleğiniz: ____

Çocuğunuz var mı?: Evet ☐ Hayır ☐

Evet ise kaç çocuğunuz var? ___

Yaşamınızın çoğunun geçtiği yer:

Metropol (İstanbul, Ankara, İzmir) ☐ Şehir ☐ Kasaba ☐ Köy ☐

Ekonomik durumunuzu en iyi hangi seçenek yansıtıyor?

Düşük ☐ Orta ☐ Yüksek ☐

Doktor tarafından teşhis edilen herhangi psikolojik bir rahatsızlığınız var mı?

Evet ☐ Hayır ☐

Varsa nedir? ___

Doktor tarafından teşhis edilen herhangi fiziksel bir hastalığınız var mı?

Evet ☐ Hayır ☐

Evet ise nedir? ___

Doktorlar tarafından teşhis edilmeyen ancak sizde var olduğunu düşündüğünüz psikolojik bir rahatsızlığınız var mı?

Evet ☐ Hayır ☐

Varsa nedir? ____

Şu anda herhangi bir nedenle (fiziksel ya da psikolojik) tedavi görüyor musunuz?

Evet ☐ Hayır ☐

Evet ise nedir? ___

APPENDIX E. THE SOCIOECONOMIC STATUS SCALE / SOSYOEKONOMİK STATÜ ÖLÇEĞİ

1. Toplamda kaç yıl eğitim aldınız?
2. Mesleğiniz ve çalışma durumunuz nedir?
3. Hanenizdeki aile bireylerinin yaşları kaçtır?
4. Hanenizdeki aile bireylerinin cinsiyetleri nedir?
5. Hanenizdeki aile bireyleri toplamda kaç yıl eğitim almıştır?
6. Hanenizdeki bireylerin meslekleri ve çalışma durumları nedir?
7. Şu anda oturduğunuz konut size mi ait?

   ☐Evet

   ☐Hayır
8. Hane bireylerinin en az biri otomobil sahibi mi?

   ☐Evet

   ☐Hayır
9. Şu anda oturduğunuz hanede internet bağlantınız var mı?

   ☐Evet

   ☐Hayır
10. Şu anda hanenize giren aylık ortalama gelir nedir?

APPENDIX F. BRIEF SYMPTOM INVENTORY / KISA SEMPTOM ÖLÇEĞİ

Aşağıda belirtilen sorundan ne ölçüde rahatsız olduğunuzu her sorun için 0 (*Hiç*) ve 4 (*Aşırı düzeyde*) arasında sizin için en uygun olan seçeneği işaretleyerek cevaplayınız. Bu çalışmada kimlik bilgileriniz kesinlikle kullanılmayacak, gizli tutulacaktır. Bu yüzden tüm soruları olabildiğince dürüst bir şekilde cevaplayınız. Soruları cevaplarken hiçbir sorunun doğru ya da yanlış cevabı olmadığını aklınızda bulundurunuz.

Tanımlama

0 Hiç
1 Çok az
2 Orta derecede
3 Oldukça fazla
4 Aşırı düzeyde

İçinizdeki sinirlilik ve titreme hali	0 ☐1 ☐2 ☐3 ☐4 ☐
Baygınlık, baş dönmesi	0 ☐1 ☐2 ☐3 ☐4 ☐
Bir başka kişinin sizin düşüncelerinizi kontrol ettiği fikri	0 ☐1 ☐2 ☐3 ☐4 ☐
Başınıza gelen sıkıntılardan dolayı başkalarının suçlu olduğu düşüncesi	0 ☐1 ☐2 ☐3 ☐4 ☐
Olayları hatırlamada güçlük	0 ☐1 ☐2 ☐3 ☐4 ☐
Çok kolayca kızıp öfkelenme	0 ☐1 ☐2 ☐3 ☐4 ☐
Göğüs ve kalp bölgesinde ağrılar	0 ☐1 ☐2 ☐3 ☐4 ☐
Açık yerlerden korkma duygusu	0 ☐1 ☐2 ☐3 ☐4 ☐
Yaşamınıza son verme düşünceleri	0 ☐1 ☐2 ☐3 ☐4 ☐
İnsanların çoğuna güvenilmeyeceği hissi	0 ☐1 ☐2 ☐3 ☐4 ☐
İştahta bozukluklar	0 ☐1 ☐2 ☐3 ☐4 ☐

Hiçbir nedeni olmayan ani korkular	0 ☐1 ☐2 ☐3 ☐4 ☐
Kontrol edemediğiniz duygu patlamaları	0 ☐1 ☐2 ☐3 ☐4 ☐
Başka insanlarla beraberken bile yalnızlık hissetme	0 ☐1 ☐2 ☐3 ☐4 ☐
İşleri bitirme konusunda kendini engellenmiş hissetme	0 ☐1 ☐2 ☐3 ☐4 ☐
Yalnızlık hissetme	0 ☐1 ☐2 ☐3 ☐4 ☐
Hüzünlü, kederli hissetme	0 ☐1 ☐2 ☐3 ☐4 ☐
Hiçbir şeye ilgi duymama	0 ☐1 ☐2 ☐3 ☐4 ☐
Ağlamaklı hissetme	0 ☐1 ☐2 ☐3 ☐4 ☐
Kolayca incinebilme, kırılma	0 ☐1 ☐2 ☐3 ☐4 ☐
İnsanların sizi sevmediğine, size kötü davrandığına inanmak	0 ☐1 ☐2 ☐3 ☐4 ☐
Kendini diğerlerinden daha aşağı görmek	0 ☐1 ☐2 ☐3 ☐4 ☐
Mide bozukluğu, bulantı	0 ☐1 ☐2 ☐3 ☐4 ☐
Diğerlerinin sizi gözlediği ya da hakkınızda konuştuğu düşüncesi	0 ☐1 ☐2 ☐3 ☐4 ☐
Uykuya dalmada güçlük	0 ☐1 ☐2 ☐3 ☐4 ☐
Yaptığınız şeyleri tekrar tekrar doğru mu diye kontrol etme	0 ☐1 ☐2 ☐3 ☐4 ☐
Karar vermede güçlükler	0 ☐1 ☐2 ☐3 ☐4 ☐
Otobüs, tren, metro gibi umumi vasıtalarla seyahatlerden korkma	0 ☐1 ☐2 ☐3 ☐4 ☐
Nefes darlığı, nefessiz kalma	0 ☐1 ☐2 ☐3 ☐4 ☐
Sıcak soğuk basmaları	0 ☐1 ☐2 ☐3 ☐4 ☐
Sizi korkuttuğu için bazı eşya ya da etkinliklerden uzak kalma	0 ☐1 ☐2 ☐3 ☐4 ☐
Kafanızın bomboş kalması	0 ☐1 ☐2 ☐3 ☐4 ☐
Bedeninizin bazı bölgelerinde uyuşmalar, karıncalanmalar	0 ☐1 ☐2 ☐3 ☐4 ☐

Günahlarınız için cezalandırılmanız gerektiği düşünceleri	0 ☐1 ☐2 ☐3 ☐4 ☐
Gelecekle ilgili umutsuzluk duyguları	0 ☐1 ☐2 ☐3 ☐4 ☐
Dikkati bir şey üzerinde toplamada güçlük	0 ☐1 ☐2 ☐3 ☐4 ☐
Bedenin bazı bölgelerinde zayıflık, güçsüzlük hissi	0 ☐1 ☐2 ☐3 ☐4 ☐
Kendini gergin ve tedirgin hissetme	0 ☐1 ☐2 ☐3 ☐4 ☐
Ölme ve ölüm üzerine düşünceler	0 ☐1 ☐2 ☐3 ☐4 ☐
Birini dövme, ona zarar verme, yaralama isteği	0 ☐1 ☐2 ☐3 ☐4 ☐
Bir şeyleri kırma, dökme isteği	0 ☐1 ☐2 ☐3 ☐4 ☐
Diğerlerinin yanındayken sürekli kendini gözleyip yanlış bir şeyler yapmamaya çalışmak	0 ☐1 ☐2 ☐3 ☐4 ☐
Kalabalıklarda rahatsızlık duymak	0 ☐1 ☐2 ☐3 ☐4 ☐
Bir başka insana hiç yakınlık duymamak	0 ☐1 ☐2 ☐3 ☐4 ☐
Dehşet ve panik nöbetleri	0 ☐1 ☐2 ☐3 ☐4 ☐
Sık sık tartışmaya girmek	0 ☐1 ☐2 ☐3 ☐4 ☐
Yalnız bırakıldığında/kalındığında sinirlilik hissetmek	0 ☐1 ☐2 ☐3 ☐4 ☐
Başarılarınız için diğerlerinden yeterince takdir alamamak	0 ☐1 ☐2 ☐3 ☐4 ☐
Yerinde duramayacak kadar huzursuz hissetmek	0 ☐1 ☐2 ☐3 ☐4 ☐
Kendini değersiz görmek/değersizlik duyguları	0 ☐1 ☐2 ☐3 ☐4 ☐
Eğer izin verirseniz insanların sizi sömüreceği duygusu	0 ☐1 ☐2 ☐3 ☐4 ☐
Suçluluk duyguları	0 ☐1 ☐2 ☐3 ☐4 ☐
Aklınızda bir bozukluk olduğu düşüncesi	0 ☐1 ☐2 ☐3 ☐4 ☐

APPENDIX G. INDIVIDUALISM AND COLLECTIVISM (IND-COL) SCALE / IND-COL ÖLÇEĞİ

Aşağıda verilen ifadelerin sizin olağan davranışlarınızı ne ölçüde yansıttığını belirtiniz. Her ifadeyi 1 (*Hiç katılmıyorum*) ve 5 (*Tamamen katılıyorum*) arasında sizin için en uygun olan seçeneği işaretleyerek cevaplayınız. Bu çalışmada kimlik bilgileriniz kesinlikle kullanılmayacak, gizli tutulacaktır. Bu yüzden tüm soruları olabildiğince dürüst bir şekilde cevaplayınız. Soruları cevaplarken hiçbir sorunun doğru ya da yanlış cevabı olmadığını aklınızda bulundurunuz.

1	2	3	4	5
Hiç katılmıyorum	Biraz katılıyorum	Kısmen katılıyorum	Oldukça katılıyorum	Tamamen katılıyorum

Kişisel tarzımı geliştirmek benim için önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Sosyal ve duygusal yardım almak için sıklıkla ailemle görüşürüm.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Kendi ailemin geleneklerini, göreneklerini ve değerlerini öğrenmek benim için önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Diğer insanlar ile ortak noktam olsa da beni ben yapan benim kişisel özelliklerimdir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ailemin benim hayatımda kilit bir rolü vardır.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ailemin bana her zaman yardım edeceğini bilirim.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ailem tarafından verilen kararlara saygı göstermek benim için önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Diğer insanlardan farklı olmayı tercih ederim.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ben herkesten farklıyım, özelim.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ailem benim için her şeyden daha önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Birçok açıdan diğer insanlardan farklı ve özel olmak hoşuma gider.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Benim için kendim olmak önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim için çok çalışmak ve kişisel kararlılık hayatta başarının anahtarıdır.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim gerçekten kim olduğumu bilmek için başarılarıma ve yaptıklarıma bakmanız lazım.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim hangi gruplara üye olduğumu bilirseniz, benim kim olduğumu da bilirsiniz.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Karakterli biri kendi amaçlarına ulaşmaya çalışandır.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ne zaman ailemin yardıma ihtiyacı olsa yardım etmeye çalışırım.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim gerçekten kim olduğumu bilmek için beni kendi grubumun içinde görmeniz gerekir	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Kendi başarılarımı hatırlamak ve kendim için yeni hedefler koymak hoşuma gider.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Başkalarının düşüncelerindense kendi düşüncelerimin peşinden gitmek benim için daha iyidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim kişisel mutluluğum her şeyden daha önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Kişisel mutluluk ve ona ulaştıracak olan özgürlük benim ben olmamda kilit rol oynar.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim diğer kişilerle olan ilişkilerim benim kim olduğum ile yakından ilişkilidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Ait olduğum dini, ulusal veya etnik grubun tarihi ve mirası benim önemli bir parçamdır.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Karakterli biri her şeyden önce kendi dini, ulusal veya etnik grubuna yardım eder.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim kişisel başarılarım ve yaptıklarım benim kim olduğum ile ilgili çok önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Diğer insanları dinlemek yerine eğer kendi tercihlerimi yaparsam çok daha mutlu olurum.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Benim mutluluğum çevremdekilerin mutluluğuna bağlıdır.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Kişisel hedeflerimin en yüksek önceliğe sahip olduğunu hatırlamak benim için önemlidir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Bazı açılardan bakıldığında beni ben yapan şey ilişkilerimdir.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Çoğunlukla kendi kişisel tercihlerim vardır.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Eninde sonunda insan kendisini ait olduğu dini, ulusal veya etnik grubun üyelerine karşı en yakın hisseder.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Kendi kişisel çıkarımı ait olduğum grubun yararı için feda ederim.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Bir olay ile ilgili herhangi bir şey duyduğumda, bunun ait olduğum dini, ulusal ya da etnik grubum için iyi mi yoksa kötü mü olacak diye düşünürüm.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

APPENDIX H. TYPE C-BEHAVIOR SCALE EMOTINOAL NON-EXPRESSIVENESS SCALE / TİP C-DAVRANIŞ ÖLÇEĞİ DUYGU İFADE EDEMEME ALT ÖLÇEĞİ

Aşağıda verilen ifadelerin sizin olağan davranışlarınızı ne ölçüde yansıttığını belirtiniz. Bu çalışmada kimlik bilgileriniz kesinlikle kullanılmayacak, gizli tutulacaktır. Bu yüzden tüm soruları olabildiğince dürüst bir şekilde cevaplayınız. Soruları cevaplarken hiçbir sorunun doğru ya da yanlış cevabı olmadığını aklınızda bulundurunuz.

1. Başkasına kendimi nasıl hissettiğimi söyleme konusunda sıkıntı duyarım.
   - ☐Bana hiç benzemiyor
   - ☐Bana biraz benziyor
   - ☐Bana oldukça benziyor
   - ☐Bana çok benziyor

2. Başkalarına duygularımdan bahsetmeyi severim.
   - ☐Bana hiç benzemiyor
   - ☐Bana biraz benziyor
   - ☐Bana oldukça benziyor
   - ☐Bana çok benziyor

3. Ne kadar üzgün olursam olayım, bunu rahatlıkla başkalarına yansıtamam.
   - ☐Bana hiç benzemiyor
   - ☐Bana biraz benziyor
   - ☐Bana oldukça benziyor
   - ☐Bana çok benziyor

4. Stresten bunaldığım zamanlarda, tavsiye almak için arkadaşlarıma veya aileme giderim.

   ☐Bana hiç benzemiyor

   ☐Bana biraz benziyor

   ☐Bana oldukça benziyor

   ☐Bana çok benziyor

5. Hayatım boyunca, yoğun duygularımı ifade etmeme imkan verilmiştir.

   ☐Bana hiç benzemiyor

   ☐Bana biraz benziyor

   ☐Bana oldukça benziyor

   ☐Bana çok benziyor

APPENDIX I. SHORT INTERVIEW QUESTIONS / KISA GÖRÜŞME SORULARI

Aşağıda belirtilen soruları mümkün olduğu kadar detaylı bir şekilde cevaplayınız. Bu çalışmada kimlik bilgileriniz kesinlikle kullanılmayacak, gizli tutulacaktır. Bu yüzden tüm soruları olabildiğince dürüst bir şekilde cevaplayınız. Soruları cevaplarken hiçbir sorunun doğru ya da yanlış cevabı olmadığını, mühim olanın sizin algınız olduğunu unutmayınız.

- Kendinizi tanıtır mısınız?

- Nerede doğdunuz ve büyüdünüz? Nasıl bir çocukluk geçirdiniz?

- Çalışıyor musunuz/okuyor musunuz? (Evet ise, ne zamandır? Bu alanı seçme sebebiniz nedir? Bundan sonraki planlarınız nelerdir?)

- Aile ilişkilerinizden bahsediniz. (Aile bireylerinizi nasıl tanımlarsınız? Kaç kişi yaşıyorsunuz? Birlikte yaşamadığınız aile bireyleriyle ne sıklıkla görüşüyorsunuz, birlikte neler yapıyorsunuz?)

- Aile içerisinde sıkıntı duyulan kişisel deneyimler, duygu ve düşünceler paylaşılır mı?

- Arkadaşlık ilişkilerinizden bahsediniz. (Yakın olduğunuz arkadaşlarınız ile neler yaparsınız, hangi sıklıkla görüşürsünüz? Yakın arkadaşlarınız ile birbirinize sıkıntı duyduğunuz şeyleri paylaşır mısınız?)

- Ne gibi bedensel belirtiler/şikayetler yaşıyorsunuz?

- Bu bedensel belirtileri ne zamandır ve hangi sıklıkla yaşıyorsunuz? Bu belirtilerin zaman zaman kötüleşmesine sebep olan herhangi bir durum oluyor mu?

- Bu bedensel belirtilerin hayatınızı nasıl etkilediğini düşünüyorsunuz?

- Bu belirtiler sizce neden oluyor? Sebepleri neler olabilir?

- Aileniz ve çevrenizdeki bireyler bu belirtilere nasıl tepki veriyor?

- Aileniz ve çevrenizdekiler bu belirtilerin neden olduğunu düşünüyor?

- Aileniz ve çevrenizdekiler bu belirtilerden yakındığınızda size nasıl davranıyor? Nasıl davranmalarını beklerdiniz, neden?

- Aileniz ve çevrenizdekiler ile ilişkileriniz bu belirtilerden dolayı etkileniyor mu? Etkileniyorsa nasıl etkilendiğinden bahsediniz.

- Bu belirtilerle ilgili herhangi bir destek ve/ya yardım aldınız mı? Aldıysanız nasıl ve kimden aldınız? Bu destek ve/ya yardımların hangileri size daha iyi geldi? Herhangi bir destek ve/ya yardım almadıysanız, neden yardım almadınız?

- Bu belirtilerin üstesinden gelmek için kendi başınıza yaptığınız herhangi bir şey var mı? Varsa, nedir açıklayınız.

APPENDIX J. CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Paker, Melisa Aşkım
Nationality: Turkish (TC)
Date and Place of Birth: 14.06.1992, Ankara
E-mail: apakermelisa@yahoo.com.tr

EDUCATION

2016 – 2021 Ph.D., Middle East Technical University (METU),
Clinical Psychology Ph.D. Program
2014-2015 MSc., King's College London (KCL),
Mental Health Studies MSc Program
Merit Degree
2010-2014 B.S., Bilkent University,
Department of Psychology
Distinction Degree

FOREIGN LANGUAGES

Advanced English
Beginner French

WORK EXPERINCES

Year	Place	Enrollment
March 2021 - ongoing	Melisa Paker Psychological Counseling, Istanbul	Clinical Psychologist
November 2019 – March 2021	Korto Psychological Counseling, Istanbul	Clinical Psychologist

November 2019 – September 2019	Madalyon Psychiatry Center, Istanbul	Clinical Psychologist
September 2019 – September 2016	Güven Hospital, Ankara	Clinical Psychologist
September 2016 – September 2015	Madalyon Psychiatry Center, Ankara	Clinical Psychologist

INTERNSHIP EXPERIENCES

Year	Place	Enrollment
October 2018 – June 2019	Middle East Technical University, AYNA Clinical Psychology Unit	Supervisor
January 2015 – June 2015	King's College London, South London and Maudsley Hospital	Assistant Psychologist
June 2013 – July 2013	Hacettepe University Hospital, Adult Inpatient Service	Intern Psychologist
June 2012 – July 2012	Üstün Dökmen Kindergarten	Intern Psychologist

SCHOLARSHIPS

2014 – 2015	Jean Monnet Scholarship, Chapter of Research and Science (for MSc Study in King's College London)
2013- 2014	The Scientific and Technological Research Council of Turkey (TUBITAK), Scientist Supporting Program (BIDEB) (for B.S Dissertation)
2010 – 2014	Bilkent University, 100% Merit Scholarship

AWARDS

2014	Ranked as 1ST in "Young Psychologists' Research Competition" coordinated by Turkish Psychological Association
2014	Ranked as 1st among Bilkent University, Department of Psychology Graduates

CONFERENCE PRESENTATIONS

2nd International Congress of Integrative Medicine, Istanbul, 2019	The relationship between chronic stress levels and metabolic/cardiovascular risk factors in professional musicians Maşrabacı, Y.; Paker, M. A.; & Ersoy, E.
18th World Congress of Psychiatry, Mexico, 2018	The relationship between chronic stress levels and metabolic/cardiovascular risk factors in professional musicians Maşrabacı, Y.; Paker, M. A.; & Ersoy, E.
11th European Congress of Integrative Medicine, Ljubljana, 2018	The relationship between chronic stress levels and metabolic/cardiovascular risk factors in professional musicians Maşrabacı, Y.; Paker, M. A.; & Ersoy, E.
11th European Congress of Integrative Medicine, Ljubljana, 2018	Healthy Living Support Programs Maşrabacı Y.; Bilgili, H.; Paker, M. A.; & Ersoy, E.
17th European Congress of Internal Medicine, Weisbaden, 2018	The relationship between chronic stress levels and metabolic/cardiovascular risk factors in professional musicians Maşrabacı, Y.; Paker, M. A.; & Ersoy, E.
17th European Congress of Internal Medicine, Weisbaden, 2018	Healthy Living Support Programs Maşrabacı Y.; Bilgili, H.; Paker, M. A.; & Ersoy, E.
1st International Congress of Integrative Medicine, Istanbul, 2018	Healthy Living Support Programs Maşrabacı Y.; Bilgili, H.; Paker, M. A.; & Ersoy, E.
20th National Congress of Psychology, Ankara, 2017	Do believing in the same religion increase the cooperation with healthcare professionals? Paker, M. A. & Canel-Çınarbaş, D.
19th National Congress of Psychology, İzmir, 2016	The relationship between cognitive aging, decision making, Evaluability Hypothesis and consistency Paker, M.A. & Adams, M.

PROGRAMS

SPSS, Microsoft Office, JAVA, MatLab

APPENDIX K. TURKISH SUMMARY / TÜRKÇE ÖZET

1. GİRİŞ

1.1. Somatik Semptomlar

Somatizasyon terimi ilk olarak Wilhelm Stekel tarafından 1924 yılında ortaya atılmıştır ve *derine yerleşmiş nevroz* olarak tanımlanmıştır (Lipowski, 1988). Stekel'in ardından Menniger (1947), somatizasyonu psikolojik stresin beden yoluyla ifadesi olarak betimlemiştir. (Lipowski, 1988). En basit tabirle, somatizasyon patolojik sebepler yokken psikolojik stresin bedensel semptomlarla dışı vurumudur (Çolak, 2014; Gupta, 2006; Gureje, Simon, Ustun & Goldberg; Kirmayer, 1984; Kirmayer, 1994; Lipowski,1997; Kirmayer ve Young, 1998; Lipowski, 1988; Waitzkin ve Magana, 1997). Güncel çalışma, somatic semptomların yordayıcılarını ve bireysel deneyimlerini açığa çıkartmayı amaçlayan karma yöntemli bir çalışmadır.

Amerikan Psikiyatri Birliği (APA) tarafından yayınlanan Mental Bozuklukların Tanısal ve Sayımsal El Kitabı'nda (DSM) somatizasyon tanımı zaman içerisinde çeşitli değişiklere uğramıştır (Dimsdale, ve ark., 2013; Haller, Cramer, Lauche, ve Dobos, 2015; Hüsing, Löwe, ve Toussant, 2018; Krause ve ark., 2019; Mayou, 2014; Piontek, Shedden-Mona, Gladigau, Kuby, ve Löwe, 2018; Pohontsch ve ark., 2018). DSM-IV'te somatizasyon bozukluğu olarak yer verilirken ayırıcı tanı semptomların medical olarak açıklanamaz olmasıdır (Amerikan Psikiyatri Birliği, 1994, s. 448). 2015 yılında yayınlanan DSM-5'te ise somatik semptom bozukluğu adı verilmiş ve semptomların medical olarak açıklanabilir olup olmaması kriter olmaktan çıkmıştır (APA, 2013; Dismdale ve ark., 2013; Mayou, 2014).

Güncel çalışmada kullanılan somatik semptom terimi DSM-5 ile uyumlu olarak medical olarak açıklanabilir olup olmamasına bakılmazsınız katılımcıların yaşadığı bedensel belirtiler olarak kullanılmıştır.

1.1.1. Somatik Semptomların Etiyolojisi

Günümüzde somatik semptomları açıklayan tek bir etiyolojik model bulunmamaktadır (Kellner, 1990; Nolen-Hoeksema, 2011). Somatik semptomların birden fazla değişken arasındaki ilişkiden etkilendiği çalışmalarca tespit edilmiştir (Kellner, 1990). Alanyazında yürütülmüş niceliksel çalışmalar demografik değişkenlerin (örn: yaş, cinsiyet, sosyoekonomik seviye), kişilik özellikleri (örn: duygu ifadesizliği), psikososyal değişkenlerin (örn: anksiyete, depresyon, algılanan stress, duygusal destek yoksunluğu vb.) ve kültürel değişkenlerin (bireyselcilik ve toplulukçuluk) somatic semptom deneyiminin yordayıcıları olduğunu ileri sürmüştür (Adler ve Ostrove, 1999; Barsky ve ark., 2001; Fournier ve ark., 2002; Gureje ve ark., 1997; Hernandez ve Kelner, 1992; Huurre ve ark., 2005; Marshall ve Funch, 2013; Nummi ve ark., 2017; Ogden, 2004; Oyserman ve ark., 2002; Prospero, 2007; Romero-Acosto ve ark., 2013).

Alanyazında yürütülen niteliksel çalışmaların sayısı ise kısıtlıdır. Kısıtlı sayıdaki niteliksel çalışmaların bulgularına göre psikososyal destek ve hoşnut olunmayan duygular somatic semptomların yordayıcılarıdır (Lanzara, Scipioni ve Conti, 2019; Kuruvilla ve Jacob, 2012; Raguram, Weiss, Chonnabosavanna ve Devins, 1996).

Alanyazında somatic semptomların etiyolojisini açıklayan bütünsel bir model bulunmamaktadır ve güncel çalışmanın amacı somatic semptom etiyolojisine ve bireysel semptom deneyimlerine ışık tutmaktır. Bu doğrultuda karma yönelimli güncel çalışma ile somatic semptomların yordayıcıları kullanılan ölçeklerle, bireysel semptom deneyimleri ise katılımcılarla yürütülmüş kısa görüşmelerle ortaya çıkartılmıştır.

1.2. Demografik Değişkenler ve Somatik Semptomlar

1.2.1. Yaş ve Somatik Semptomlar

Alanyazındaki çalışmalar yaş ve somatik semptomlar arasında anlamlı bir ilişki bulmuştur (Beutel ve ark., 2020; Bohman ve ark., 2012; Casper, Redmond JR, ve Katz, 1985; Cohen ve ark., 2013; Ginsburg, Riddle, ve Davies, 2006; Li, Borgfeldt, Samsioe, Lidfeldt, ve Nerbrand, 2005; Nummi, Virtanen, Leino-Arjos, ve Hammorstörm, 2017; Romero-Acosto ve ark., 2013). Yaş arttıkça somatik semptom deneyimlerinin arttığı tespit edilmiştir ve bu bulgunun erken çocukluk döneminden başlayarak süregeldiği öne sürülmüştür (Ginsburg ve ark., 2006).

Yaş ile beraber somatik semptomların artmasının sebebi ise tartışmalıdır (Casper ve ark., 1985; Li ve ark., 2005; Nummi ve ark., 2017). Yaş ile beraber artan somatik semptomlardaki bu artış sebebinin yaşa eşlik eden diğer değişkenler olabileceği öne sürülmüştür (Li ve ark., 2005). Dolayısıyla güncel çalışmaya yaş değişkenin yanı sıra somatik semptomları yordayabilecek diğer değişkenler de eklenmiştir.

1.2.2. Cinsiyet ve Somatik Semptomlar

Alanyazında cinsiyet ve somatik semptomlar arasındaki ilişkiyi inceleyen çalışma bulguları tutarsızdır (Barsky, Klerman, ve Latham, 1990; Barsky, Peekno, ve Borus, 2001; Barsky, Wyshak, ve Klerman, 1986; Davis, 1981; Hernandez ve Kelner, 1992; Macintyre, 1993; Marshall ve Funch, 1986; Verbrugge ve Ascione, 1987). Kimi çalışmalar, kadınların erkeklere göre daha fazla somatik semptom deneyimlediğini öne sürerken (Beutel ve ark., 2020; Barsky ve ark., 2001; Kronke ve Mangelsdorff, 1989; Neitzert, Davis, ve Kennedy, 1997; Romero-Acosto ve ark., 2013; Spitzer, 1998; Unruh, 1996) diğer çalışmalar kadın ve erkekler arasındaki somatik semptom deneyimlerinde herhangi bir farklılık bulamamıştır (Barsky ve ark., 1990; Barsky ve ark., 2001;

Barsky ve ark., 1986; Davis, 1981; Fowler-Kelly ve Lanser, 1991; Hernandez ve Kelner, 1992; Marshall ve Funch, 1986; Kirmayer ve Robbins, 1991; Macintyre, 1993; Neitzert ve ark., 1997; Unruh, 1996; Verbrugge ve Ascione, 1987).

Alanyazındaki tutarsız bulguların güncel çalışma grubunda nasıl bir farklılaşma göstereceğinin görülebilmesi için cinsiyet değişkeni somatik semptomların olası yordayıcılardan biri olarak çalışmaya dahil edilmiştir.

1.2.3. Sosyoekonomik Seviye ve Somatik Semptomlar

Sosyoekonomik seviye genellikle bireyin gelir ve eğitim seviyesine bakarak belirlenmektedir (Escobar, Burnam ve Korno, 1987). Çalışmalar bireylerin sosyoekonomik seviyelerinin artmasıyla birlikte genel sağlık hallerinin de arttığını bulmuştur (Adler ve Ostrove, 1999). Aynı doğrultuda sosyoekonomik seviyenin farklı ülkelerde dahi somatik semptomları yordadığı tespit edilmiştir (Angel ve Guarnaccia, 1989; Escobar ve ark., 1987; Obimakinde, Ladipo, ve Irobor, 2015; San Sebastian, Hammarström, ve Gustafsson, 2015).

Sosyoekonomik seviyenin bir belirleyicisi olarak bireyin kaç yıl forma eğitim aldığı da somatik semptomların belirleyicileri arasındadır (Chandler ve ark., 2019; Gureje ve ark., 1997; Huurre, Rankonen, Kamulainen, ve Aro, 2005; Swartz, Landerman, Blazer, ve George, 1989). Yıl olarak daha az formal eğitim almış bireylerin somatik semptom deneyim riskinin diğer bireylere göre fazla olduğu tespit edilmiştir (Chandler ve ark., 2012; Gureje ve ark., 1997).

Tam tersi olarak, sosyoekonomik ve eğitim seviyesi yüksek bireylerin ise daha az somatik semptom deneyimledikleri ortaya çıkartılmıştır (Gureje ve ark., 1997).

1.3. Duygu İfade Edememe ve Somatik Semptomlar

Duygu ifadesi bireyin kendi duygularını sözel ve sözel olmayan (jest, mimik vb.) ile ifade edebilme yetisidir (Riggio, 1986; Riggio ve Riggio, 2001; Riggio ve Riggio, 2002). Günümüzde duygu ifade edememe, C-Tipi Kişilik Özellikleri arasındadır (Bozo ve ark., 2012). C-Tipi Kişilik Özellikleri arasında pasiflik, sakinlik, kendine yardım edememe, kendini feda etme ve duygu ifadesizliği yer almaktadır.

Klinik popülasyon ile yapılan çalışmalar, duygu ifade edememenin somatik semptomlarla ilişkili olduğunu öne sürmüştür (Okur-Güney ve ark., 2019; Sattel, Witthöft ve Henningsen, 2019). Alanyazında yürütülmüş çalışmalar klinik popülasyonla yürütülen çalışmalar ve klinik olmayan popülasyon içerisinde duygu ifadememe ve somatik semptomlar arasındaki ilişki henüz incelenmemiştir. Bu doğrultuda, güncel çalışmada duygu ifadememe somatik semptomların olası yordayıcı olarak dahil edilmiştir.

1.4. Psikolojik Rahatsızlıklar ve Somatik Semptomlar

Alanyazındaki çalışmalar, somatik semptomların en çok major depresif bozulukta ortaya çıktığını tespit etmiştir (Gureje ve ark., 1997; Russo ve ark., 1994; Simms, Prisciandaro, Krueger, ve Goldberg, 2012). Ancak alanyazında yürütülmüş çalışmalar, major depresif bozukluğu tanısı almamaış ancak halihazırda depresif belirtileri olan bireylerdeki somatik semptom deneyimlerini incelememiştir.

Anksiyete bozukluklarının (yaygın anksiyete bozukluğu, panik bozukluk vb.) major depresif bozukluktan sonra somatik semptomların en çok görüldüğü psikolojik rahatsızlık grubu olduğu ortaya çıkartılmıştır (Groen, van Gils, Emerencia, Bos, ve Rosmalen, 2020). Depresif semptomların aksine alanyazında yürütülmüş çalışmalar herhangi bir anksiyete bozukluğu tanısı almamış ancak anksiyete belirtileri gösteren klinik olmayan popülasyondaki bireylerin de

somatik semptom deneyimlediklerini ortaya çıkartmıştır (Malorqui-Bogue et al., 2016).

Fobik anksiyete, obsesif kompülsif bozukluk ve öfke denetim sorunlarının da somatik semptomların yordayıcılarından olduğu bilinmektedir (Brown ve ark., 1990). Psikotizm ve somatic semptomlar arasındaki ilişkiyi inceleyen çalışma sayısı ise oldukça azdır (Marty, 1968).

1.5. Kültürel Değişkenler ve Kültürün Psikolojik Rahatsızlıklar Üzerindeki Etkisi

1.5.1. Bireyselcilik ve Toplulukçuluk

Bireyselcilik, bireyin kendini gerçekleştirme ve otonomi gibi bireysel olguları içinde bulunduğu toplumun beklenti ve isteklerinden daha önde tutması olarak betimlenebilir (Hofstede, 1980). Bireyselci bireylerin bireysel amaçlarına ulaşabilmeleri için yeri geldiğinde sosyal bağlarını ve ilişkilerini geride bıraktıkları da tespit edilmiştir (Kağıtçıbaşı, 1997; Oyserman, 1993; Oyserman ve ark., 2002). Toplulukçuluk ise grup bağlarının ön planda tutularak gerektiğinde grubun akıbeti için bireysel istek, ihtiyaç ve amaçların ikinci plana atılması olarak özetlenebilir (Oyserman ve ark., 2002).

Hofstede (1980) tarafından bireyselcilik ve toplulukçunun aynı spektrum üzerindeki iki ayrı uç olduğu öne sürülse de Kağıtçıbaşı (1996) bu iki olgunun birbirinden bağımsız iki ayrı olgu olduğunu öne sürmüştür. Bu doğrultuda gelişen önermeler ise bir bireyin hem bireyselci hem de toplulukçu özellikler taşıyabileceğini belirtmektedir (Oyserman ve Lee, 2008). Bu önerme doğrultusunda geliştirilen ölçeklerde de bir bireyin hem bireyselci hem de topululukçu puanlarına sahip olabileceği görülmektedir (Oyserman ve ark., 2002; Oyserman ve ark., 2005; Öztürk ve ark., 2019).

1.5.2. Kültürün Psikolojik Rahatsızlıklar Üzerindeki Etkisi

Psikolojik rahatsızlıkların değerlendirilmesi ve kavramsallaştırılması esnasında kültürün etkisinin de hesaba katılması gerektiği öne sürülmektedir (APA, 2013). Kültür, herhangi bir psikolojik rahatsızlığın belirlenmesinde çerçeve görevi görmektedir çünkü farklı kültürler aynı rahatsızlığın deneyimi, ifadesi, belirtileri ve davranışsal örüntüleri farklı olabilmektedir (Kirmayer ve Young, 1994; Kleiman, 1988). Örneğin kültürel alanda yürütülen çalışmalar, major depresif bozukluğuna sahip Türkiye popülasyonun %87'sinin uykusuzluk ve iç sıkıntısını çekirdek semptom olarak dile getirdiğini ortaya koymuştur (Küey ve Güleç, 1995). Benzer bir şekilde, Danimarka'daki Türkiye göçmeni kadınlarının yürek kasıkışmasını depresyonun çekirdek semptomu olarak yaşadığı bulunmuştur (Mirdal, 1985).

Alanyazında yürütülen çalışmalar, kültürel değişkenlerin bireylerin yardım arama davranışlarını ve tedaviye istekli olma hallerini de belirlediğini ortaya çıkartmıştır (Arnault, 2009; Chang, Jetten, Cruwys, ve Haslam, 2017; Karanci, 1986; Lindinger-Sternart, 2014; Mojaverian, Hashimoto, ve Kim, 2012; Reich, Bockel, ve Mewes, 2015). Toplulukçu bireylerin yaşadıkları psikolojik rahatsızlıkları daha kadersel ifadelerle açıkladıkları ve bu sebeple de psikiyatrik/psikolojik yardıma hevesli olmadıkları tespit edilmiştir (Karasz ve Singelis, 2009)

Tüm bu belirtilenler doğrultusunda güncel çalışmanın amaçlarından bir tanesi de klinik olmayan popülasyonda kültür ve somatik semptomlar arasındaki bağın açığa çıkartılmasıdır.

1.6. Somatik Semptomlarla İlgili Yürütülmüş Niteliksel Çalışmalar

Alanyazında somatik semptomlarla ilgili yürütülen az sayıda niteliksel çalışma bulunmaktadır. Bu olgunun bir sebebi somatik semptom yaşayan bireylerin duygu ifadelerinde zorlanmaları veya bulundukları toplum içerisinde "akıl

hastası" olmakla etiketleneceklerine dair korku olabileceği öne sürülmüştür (Aiarzaguena ve ark., 2013; Lanzara ve ark., 2019; Raguram ve ark., 1996).

Alanyazında yürütülmüş kısıtlı niteliksel çalışma, somatik semptom deneyimleyen bireylerin tıp doktorlarına başvurduklarını ve tıp doktorlarının yaşadıkları semptomların fiziksel bir rahatsızlık değil de psikolojik bir durum olabileceğini söylediklerinde ise doktorlara direnç gösterdiklerini ortaya çıkartmıştır (Aiarzaguena ve ark., 2013). Buna ek olarak, somatik semptom deneyimleyen bireylerin ve ailelerinin somatik semptomların sebebi olarak psikososyal stresi ön planda tuttukları da görülmüştür (Kuruvilla ve Jacob, 2012). Bireylerin ve ailelerinin psikososyal stresten kasdettiklerinin "çok çalışma", "bedenin zorlanması" olduğu tespit edilmiştir (Baarnheilm ve Ekblad, 2000; Wileman ve ark., 2002). Somatik semptom deneyimleyen toplulukçu bireylerin de bu semptomları aile ve sosyal çevre içerisinde çok paylaşmak istemedikleri de ayrıca ortaya çıkartılmıştır.

Güncel çalışmanın bir başka amacı da somatik semptom alanyazında kısıtlı sayıda olan niteliksel çalışmalara katkıda bulunmaktır.

1.7. Güncel Çalışma

Güncel çalışmanın amacı somatik semptomların yordayıcılarının ölçekler aracılığıyla tespit edilmesi ve somatik semptom deneyimi fazla olan katılımcılarla kısa görüşmelerin yapılarak bireysel semptom deneyimlerinin anlaşılmasıdır.

Çalışmanın niceliksel bölümü için hipotezler şu şekildedir.

i. Yaş, cinsiyet, sosyoekonomik seviye, duygu ifademe edememe, psikolojik değişkenler (depresyon, anksiyete, fobik anksiyete, obsesif kompülsiflik, psikotizim, paranoid düşünceler, öfke, kişilerarası duyarlılık) ve kültüren değişkenler (bireyselcilik ve toplulukçuluk) somatik semptomların

yordayıcılarıdır ve somatik semptom varyanslarının anlamlı bir bölümü açıklarlar.

ii. Bireyselcilik somatik semptomların yordayıcılarından biridir ve somatik semptomlarla negatif ilişkilidir.

iii. Toplulukçuluk somatik semptomların yordayıcılarından biridir ve somatic semptomlarla pozitif ilişkilidir.

iv. Yaş somatic semptomların yordayıcılarından bir tanesidir ve somatik semptomlarla pozitif ilişkilidir.

v. Sosyoekonomik seviye somatik semptomların yordayıcılardan biridir ve somatik semptomlarla negative ilişkilidir.

Çalışmanın niteliksel bölümü için araştırma soruları ise aşağıdaki gibidir:

i. Katılımcılar somatik semptomlarını nasıl kavramsallaştırmaktadırlar? Somatik semptomlarının sebeplerinin ne olduğunu düşünmektedirler?

ii. Aile bireyleri ve arkadaşlar bireylerin somatik semptomlarını nasıl kavramsallaştırmaktadır? Bu semptomların sebepleri olarak onlar ne düşünmektedir? Bu semptomlara nasıl karşılık vermektedirler?

iii. Katılımcılar somatik semptomları ile nasıl başa çıkmaktadır? Bu semptomlarla ilgili daha önce yardım almışlar mıdır? Aldılarsa ne gibi bir yardım almışlardır? Semptomlarla ilgili gelecek planları nelerdir?

2. YÖNTEM

2.1. Niteliksel Çalışma

2.1.1. Katılımcılar

Katılımcıların çalışmaya dahil edilme kriterleri 18 ve 65 yaş aralığında olmak, anadilinin Türkçe olması, fiziksel veya psikolojik herhangi bir rahatsızlık tanısı almamış olmak ve İstanbul'da ikamet etmektir.

Veriler iki aşamada toplanmıştır ve ilk aşamada çalışmaya 275 katılımcı dahil olmuştur. Erkek ve sosyoekonomik seviyesi daha düşük olan katılımcıların sayısının arttılabilmesi için verilerin toplandığı bölgelerdeki apartman görevlileri ve arkadaşları çalışmaya davet edilmiştir. Yüz otuz erkek mavi yaka çalışandan veri toplanmasıyla beraber, toplamda 405 katılımcı çalışmaya katılmıştır. Katılımcılar Demografik Bilgi Formu, Sosyoekonomik Seviye Ölçeği, Bireyselcilik-Toplulukçuluk Ölçeği, C-Tipi Davranış Ölçeği Duygu İfadememe Alt Ölçeği ve Kısa Semptom Envanteri'ni doldurmuştur. Çalışmaya dahil edilen katılımcı sayısı 326 olmuştur (79 katılımcının aykırı sonuçları tespit edilmiş ve veri setinden çıkartılmıştır)

Katılımcılar 19 ve 65 yaş aralığındadır. Katılımcıların %54.6'sı kadın, %45.4'ü erkektir. Katılcımların %70'i üniversite mezunudur. Katılımcıların %27'si düşük sosyoekonomik seviyeye, %33.1'i orta sosyoekonomik seviyeye ve %39.9'u yüksek sosyoekonomik seviyeye sahiptir.

2.1.2. Veri Toplama Araçları

2.1.2.1. Demografik Bilgi Formu

Demografik bilgi formu içerisindeki sorular yaş, medeni durum, eğitim seviyesi, mesleki durum, yaşanılan yer, ekonomik seviye, fiziksel ve psikolojik sağlık, ve varsa devam eden tedavileri içermektedir.

2.1.2.2. Sosyoekonomik Seviye Ölçeği

Sosyoekonomik Seviye Ölçeği Türkiye İstatistik Kutumu tarafından, 2 yıllık saha çalışması sonucu geliştirilmiştir. Ölçeğin güçlü tarafı, sosyoekonomik seviyeyi yalnızca eğitim ve gelir seviyesine göre değil, hane halklarının eğitim seviyeleri, mesleki durumları, gelir seviyeleri, hane halkındaki bireylerin toplam gelirleri ve taşınır/taşınmaz malların mülkiyetini de içermesidir. Ölçekteki

sorulara verilen cevaplara göre katılımcıların sosyoekonomik seviyeleri tespit edilmiştir.

2.1.2.3. Kısa Semptom Envanteri

Ölçek içerisinde yer alan faktörler; depresyon, anksiyete, fobik anksiyete, obsesif-kompülsiflik, öfke, kişilerarası duyarlılık, psikotizm, paranoid düşünceler ve somatizasyondur. KSE 5'li Liker tipi ölçektir ve cevaplar 0 (*Asla*) ve 4 (*Her zaman*) arasındadır.

Kısa Semptom Envanteri (KSE) Derogatis ve arkadaşları tarafından 1992 yılında geliştirilmiş ve Şahin ve Durak tarafından 1994 yılında uyarlanmıştır. Türkiye popülasyonu için ölçeğin güvenirliği .94 olarak bulunmuştur (Şahin ve Durak, 1994).

Güncel popülasyon için KSE güvenilirdir (a = .92).

2.1.2.4. Bireyselcilik ve Toplulukçuluk Ölçeği (IND-COL)

IND-COL Ölçeği Oyserman tarafından 2005 yılında geliştirilmiş ve 2019 yılında Öztürk ve arkadaşları tarafından Türkiye popülasyonuna uyarlanmıştır. Kültürel değişkenlerin tespiti için bu ölçeğin kullanılmasının amaçları arasında uyarlamasının güncel yapılmış olması ve soru içeriklerinin de Türkiye kültürüne özgü olacak şekilde revise edilmesidir (Öztürk ve ark., 2019).

Ölçek 36 sorudan ve altı faktörden oluşmaktadır. 5'li Likert Tipi ölçektir ve cevaplar 0 (*Kesinlikle katılmıyorum*) ile 4 (*Kesinlikle katılıyorum*) arasındadır. Ölçek faktörleri; başarıya önem verme, özgürlüğe önem verme, özgünlüğe değer verme, aile, grup içi kadercilik ve kişilerarası ilişkilerdir.

Güncel çalışma için IND-COL Ölçeği güvenilirdir (*a* = .89)

2.1.2.5. C-Tipi Davranış Ölçeği – Duygu İfade Edememe Alt Ölçeği

C-Tipi Davranış Ölçeği Kurass tarafından 2004 yılında geliştirilmiş, Bozo ve arkadaşları tarafından 2012 yılında Türkiye popülasyonuna uyarlanmıştır. Ölçek 12 adet sorudan oluşman 4'lü Likert Tipi ölçektir. Türkiye popülasyonu için ölçeğin iç tutarlılık güvenirliği .81'dir. Güncel çalışmada Duygu İfade Edememe Ölçeği güvenilirdir (*a* = .80)

2.1.3. Prosedür

Güncel çalışmanın etik izni Orta Doğu Teknik Üniversitesi'nden alınmıştır. Çalışmaya katılan katılımcılara çalışmanın amacı içeren Onam Form'u imzalatılmıştır. Katılımcılar Demografik Bilgi Formu, Sosyoekonomik Seviye Ölçeği, IND-COL Ölçeği, Duygu İfade Edememe Ölçeği ve Kısa Semptom Envanteri Ölçeği'nin Google Forms üzerinden doldurmuştur.

2.1.4. İstatistiksel Analiz

Veri seti Google Forms platformundan IBM SPSS program çalışma kağıdına aktarılmıştır. Aykırı verilerin bulunması amacıyla ön analizler yapılmıştır.

Sosyoekonomik seviye ve cinsiyet değişkenlerinin somatik semptom üzerindeki etkilerinin öncelikli olarak anlaşılması için tek yönlü denekler-arası varyans analizleri yapılmıştır. Sosyoekonomik seviyenin somatik semptomlar üzerindeki etkisi anlamlıyken cinsiyetin etkisi anlamlı değildir ve cinsiyet değişkeni bu sebeple hiyerarşik çoklu regresyon analizine dahil edilmemiştir.

Hiyerarşik çoklu regresyon analizinin çoklu eşdoğrusallık önerme doğrulama analizleri yürütülmüştür. Hiyerarşik çoklu regresyon analizi yaş, sosyoekonomik seviye, duygu ifade edememe, bireyselcilik, toplulukçuluk, depresyon, anksiyete,

fobik anksiyete, obsesif kompülsiflik, öfke, kişilerarası duyarlılık, paranoid düşünceler ve psikotizm yordayıcı değişkenleri ve somatizasyon kriter değişkeni ile üç aşamada yürütülmüştür. Birinci aşamada yaş, sosyoekonomik seviye, duygu ifade edememe, ikinci aşamada kültürel değişkenler (bireyselcilik ve toplulukçuluk) ve üçüncü aşamada da psikolojik değişkenler modellere eklenmiştir.

2.2. Kısa Görüşmeler için Yöntem

2.2.1. Katılımcılar

KSE somatizasyon alt ölçeğinde kesme puanı olan 1.5 puana eş veya daha yüksek puanlamaya sahip katılımcılar kısa görüşmelere davet edilmiştir. Katılımcılar Kısa Görüşme için Onam Formu'nu imzalamıştır ve görüşmelerin amacı hakkında bilgilendirilmişlerdir.

Toplamda 45 katılımcı KSE Somatizasyon Alt Ölçeği'nde 1.5 kesme puanı üzerinde puana sahip olmuştur ancak bu katılımcıların 33 tanesi iletişim bilgilerini vermediği için kısa görüşmelere davet edilememiştir. İletişim bilgisini veren katılımcılardan iki tanesi de herhangi bir sebep göstermeden görüşmelere katılmayı reddetmiştir. Kısa görüşmeler toplamda 10 katılımcı ile gerçekleştirilmiştir. Katılımcıların yaş aralığı 25 ve 56 arasındadır. Katılımcıların yedisi kadın, üçü erkektir. Katılımcıların %40'i orta sosyoekonomik seviyeye, %60'sı ise yüksek sosyoekonomik seviyeye sahiptir. Tüm katılımcılar toplulukçu bir kültürel arka plana sahiptir.

2.2.2. Veri Toplama Araçları

Yarı yapılandırılmış görüşme protokolü araştırmacı tarafından hazırlanış ve niteliksel çalışmaya hakim olan tez danışmanı tarafından revise edilmiştir. Görüşme protokolündeki sorular niteliksel çalışmanın amaçlarına uygun olarak hazırlanmıştır. Yalnızca somatik semptom deneyimleri hakkında değil, daha

bütünleyici bir çerçeve çizebilmek adına, katılımcıların erken çocukluk dönemleri, aile yapıları, ail eve arkadaş ilişkileri, aile bireyleri ve arkadaşlarının somatik semptom sebepleri hakkındaki düşünceleri, aile bireyleri ve arkadaşların somatik semptomlara karşı tutumları ve somatik semptomlarla baş etme yöntemlerini içeren sorular hazırlanmıştır.

2.2.3. Prosedür

KSE Somatizasyon Alt Ölçeği kesme değeri olan 1.5 puandan fazla puana sahip olan katılımcılar görüşmelere davet edilmiştir. Korona salgını sebebiyle görüşmeler telefon üzerinden gerçekleştirilmiştir. Görüşmeler ortalama 41.5 dakika sürmüştür.

2.2.4. Tematik Analiz

Braun ve Clarke (2006) tarafından geliştirilmiş altı basamaklı tematik analiz yönergesi izlenmiştir. İlk basamakta görüşme kayıtları yazıya dökülmüştür. İkinci basamakta anlamlı kodlar ortaya çıkartılmış ve üçüncü basamakta farklı kodlardan temalar ve alt temalar oluşturulmuştur. Dördüncü basamakta temalar ve alt temalar tekrar gözden geçirilmiş, beşinci basamakta tema ve alt tema isimleri belirlenmiş ve altıncı basamakta da sonuçlar raporlandırılmıştır.

3. BULGULAR

3.1. Niceliksel Çalışma Bulguları

3.1.1. Ön Analiz Bulguları

Mahalanobis uzaklık testi çok değişkenli aykırı değerlerin belirlenmesi için yürütülmüştür (X^2 = 32.9095, $p < .001$). Analiz sonucunda psikotizm ve fobik anksiyete için altı adet çok değişkenli aykırı değer tespit edilmiş ve veri setinden çıkartılmıştır. Böylece veri setindeki katılımcı sayısı 326 olmuştur.

Ön analizlerin bir parçası olarak, yordayıcı değişkenler için tanımlayıcı istatistikler (ortalama, standard sapma, varyans vb.) hesaplanmıştır. Ön analizler sonucunda tüm yordayıcı değişkenler normal dağılmıştır.

Tek yönlü denekler arası varyans analizi sosyoekonomik seviye ve cinsiyet değişkenleri için ayrı ayrı yürütülmüştür. Sosyoekonomik seviyenin somatik semptomlar üzerinde anlamlı bir etkisi vardır; F (2,323) = 17.526, p < .05. Cinsiyetin somatik semptomlar üzerinde anlamlı bir etkisi bulunmamıştır; F (1,324) = 3.401, p > .05. Dolayısıyla sosyoekonomik seviye hiyerarşik çoklu regresyon analizine dahil edilirken cinsiyet değilkeni dahil edilmemiştir.

3.1.2. Hiyerarşik Çoklu Regresyon

3.1.2.1. Önerme Kontrolleri

Hiyerarşik çoklu regresyonun önermelerinin kontrolleri için kalıntıların normal dağılımı, eşdeğişkenlik, çoklu eşdoğrusallık analizleri yapılmıştır. Buna ek olarak regresyon analizine sokulan değişkenlerin arasındaki korelasyonlar incelenmiş vee n yüksek korelasyonun .65 olduğu tespit edilmiştir.

3.1.3. Model Bulguları

Hiyerarşik çoklu regresyon analizi yaş, sosyoekonomik seviye, duygu ifade edememe, bireyselcilik, toplulukçuluk, depresyon, anksiyete, fobik anksiyete, obsesif kompülsiflik, öfke, kişilerarası duyarlılık, psikotizm ve paranoid düşünceler yordayıcı değişkenleri ve somatik semptom kriter değişkeni ile yürütülmüştür. Analiz üç basamaklı şekilde yürütülmüştür.

Analizin ilk basamağında yaş, sosyoekonomik seviye ve duygu ifade edememe değişkenleri modele eklenmiştir. Yaş, sosyoekonomik seviye, duygu ifade edememe regresyon modeline anlamlı katkıda bulunmuştur; F(3,322) = 11.268,

p < .001. Model somatic semptomlardaki %9.5 varyansı açıklamıştır. Sosyoekonomik seviye anlamlı yordayıcı değişkendir; β = -.31, p < .001

Analizin ikinci basamağında ise bireyselcilik ve toplulukçuluk değişkenleri modele eklenmiştir ve Model 2 somatik semptomların %11.3 varyansını açıklamıştır. Model 2 somatik semptomların varyansına %1.8 anlamlı katkıda bulunmuştur; ΔR^2 = 0.18, F (2,320) = 3.253, p < .05. Bireyselcilik yordayıcı değişkeni anlamlıdır; β = -.15, p < .001.

Analizin son ve üçüncü basamağında depresyon, anksiyete, fobik anksiyete, obsesif kompülsiflik, öfke, kişilerarası duyarlılık, psikotizm ve paranoid düşünceler modele eklenmiştir ve değişkenler somatik semptom varyansını %51.2 açıklamaktadır. Model 3 somatik semptomların varyansına %39.9 anlamlı katkıda bulunmuştur; ΔR^2 = 0.39, F (8, 312) = 31.899, p < .001. Yaş (B = .123, P < .05), toplulukçuluk (β = .128 p < .05), obsesif kompülsiflik (β = .27, p < .001), anksiyete (β = .26, p < .05) ve fobik anksiyete (β = .13, p < .05) anlamlı yordayıcı değişkenlerdir.

3.2. Kısa Görüşme Bulguları

Üç ana tema ortaya çıkmıştır; *Katılımcıların Somatik Semptomları*, *Katılımcıların ve Diğer Önemli Bireylerin Somatik Semptomların Algılaaıkları Sebepleri*, ve *Somatik Semptomlarla Baş Etme.*

3.2.1. Tema 1: Katılımcıların Somatik Semptomları

Dokuz katılımcı *mide ile ilgili semptomlar*, mide ile semptomu olan dokuz katılımcıdan biri *baş ağrısı ve çarpıntı* ve diğer kadın katılımcı ise *bayılma* semptomlarından bahsetmiştir. Tüm katılımcılar, somatik semptom farklılığına bakmaksızın tüm semptomları "kendilerini bildi bileli" yaşadıklarını da belirtmiştir.

Alt- Tema 1: Mide ile İlgili Semptomlar: Mide Yanması ve Mide Bulantısı

Dokuz katılımcı mide yanması ve mide bulantısı yaşadıklarını belirtmiştir. Mide yanmasını "rahatsız edici bir şekilde midedeki asitin ve mide ısısının artması" olarak betimlemişlerdir. Mide bulantısının ise mide yanmasından hemen sonra ortaya çıkan "rahatsızlık verici ve neredeyse kusma ile sonuçlanacak" bir semptom olarak tanımlamışlardır.

Alt-Tema 2: Baş Ağrısı ve Çarpıntı

Mide ile semptomları olan bir kadın katılımcı bu semptomlara ek olarak baş ağrısı ve çarpıntı semptomları da yaşadığını belirtmiştir. Baş ağrısını "başında oluşan yoğun bir basınç hissi", çarpıntıyı ise "kalbinin çok hızlı ve sık atması" olarak nitelendirmiştir.

Alt-Tema 3: Bayılma

Katılımcılardan biri mide ile ilgili semptom yaşamadığını ancak bayıldığını dile getirmiştir. Bayılma semptomunu "herhangi bir fiziksel sebep olmadan kendinden geçme" olarak nitelendirmiştir. Katılımcı ilk kez iki sene önce bayıldığını ve o zamandan bu zaman toplamda altı kez bayıldığını ifade etmiştir.

3.2.2. Tema 2: Katılımcıların ve Diğer Önemli Bireylerin Somatik Semptomların Algıladıkları Sebepleri

Farklı somatic semptomları yaşamalarına ragmen tüm katılımcılar "stress" ve "çok düşünme"nin semptomlarının sebepleri olduğunu belirtmiştir. Yine yalanan semptomlardan bağımsız olarak, tüm katılımcılar ailelerinin bu semptomların sebebini "hassas ve kırılgan olma" olarak nitelendirdiklerini ifade etmiştir.

Alt-Tema 1: Stresin Somatik Semptomlar Üzerindeki Negatif Etkisi

Katılımcılar somatic semptomlarının sebeplerinden biri olarak stresi belirtmişlerdir ve stresi "baskı altında hissedilen herhangi bir durum" olarak betimlemişlerdir. Katılımcılar, stress ve somatik semptomları arasında "bir şekilde bir bağ olduğunu" da dile getirmiş ancak araştırmacı daha detaylı bir şekilde anlatmalarını istese de cevaplar sığ ve derinliksiz kalmıştır.

Alt-Tema 2: Somatik Semptomların Hem Sebebi Hem Sonucu Olarak Ruminasyon

Katılımcılar somatik semptomlarının bir başka sebebi olarak da "çok düşünme"yi belirtmişlerdir. Çok düşünmeyi "her seferinde semptom hakkında çok fazla düşünme ve sürekli semptomları düşünme" olarak nitelendirmişlerdir. Bunun psikoloji literatüründeki karşılığı ruminasyondur ve ruminasyon herhangi bir konu üzerinde aralıksız ve yopun olarak düşünme olarak nitelendirilebilir (Nolen-Hoeksema, 2011).

Alt-Tema 3: Aile Bireylerinin Algıladıkları Somatik Semptomların Sebebi "Fazla Hassas ve Kırılgan Olma"

Farklı somatik belirtileri olan katılımcıların her biri aile bireylerinin algıldaıkları somatik semptom sebebinin "fazla hassas ve kırılgan olma" olduğunu belirtmiştir. Fazla hassas ve kırılgan olma, katılımcılar tarafından "her şeyden hemen etkilenebilme" olarak tanımlanmaktadır.

3.2.3. Tema 3: Somatik Semptomlarla Baş Etme

Somatik semptomlarla baş etme teması altında dört alt tema ortaya çıkmıştır.

Alt-Tema 1: Aile Bireylerinden Duygusal Yakınlık Bekleme

Farklı somatik semptomları deneyimleyen tüm katılımcılar, semptomları hakkında aile bireyleri ile görüştüklerini dile getirmişlerdir. Tüm katılımcılar aile bireyleri ile semptomları hakkında görüşme sebeplerinin tavsiye almak olmadığını yalnızca duygusal paylaşım beklentisi içerisinde olduklarını vurgulamışlardır. Yine tüm katılımcılar, aile bireylerinin medical veya duygusal tavsiye verdiklerini (Örn: "Bir mide koruyucu iç" veya "Bu kadar takılma bu konuya") belirtmiştir. Katılımcılar, aile bireylerinden tavsiye almak istemediklerini tavsiye yerine sadece kendilerini dinlemelerini dilediklerini de belirtmiştir.

Alt-Tema 2: Arkadaşlarla Empatik ve Şefkatli Paylaşım

Farklı somatik semptomlara sahip tüm katılımcılar semptomları hakkında aile bireyleri yerine arkadaşlarıyla daha rahat ve empatik paylaşım yapabilediklerini belirtmiştir. Katılımcılar ailelerinin onlara tavsiye vermekten öteye geçemediklerini, arkadaşlarının ise daha empatik bir şekilde kendilerini dinlediklerini, sözel aynalama yaptıklarını, sıklıkla göz teması kurduklarını ve kendilerine şefkat gösterdiklerini belirtmişlerdir.

Alt-Tema 3: Kişisel Baş Etme Startejileri

Altı katılımcı (mide yanması ve mide bulantısına sahip dört kadın, iki erkek) "kendini oyalama", bir başka deyişle dikkatlerini somatik semptomlardan ziyade başka yöne yöneltme stratejisini kullandıklarını ifade etmiştir. "Kendini oyalama" baş etme stratejisinin katılımcıların somatik semptomları yoğunlaştığında kullandığı dikkat çekicidir. Katılımcılar somatik semptomlarının

yoğunlaştığı durumlarda dikkatlerini başka yöne çektiklerini belirtmişlerdir. Katılımcılar ağırlıklı olarak hobilerine yöneldiklerini belirtmiştir ve hobiler arasında komedi dizisi/filmi izlemek, kitap okumak ve oyun oynamak vardır.

İki katılımcı (mide yanması ve bulantısının yanı sıra baş ağrısı ve çarpıntı deneyimleyen bir kadın katılımcı ve mide yanması ile mide bulantısı deneyimleyen bir erkek katılımcı) baş etme stratejisi olarak "içsel konuşma" içerisine girdiklerini belirtmiştir. İçsel konuşma, "kendi kendini telkin etme" olarak betimlenmiştir ve katılımcılar somatik semptomları yoğunlaştığında kendi kendileriyle içsel olarak konuşarak (Örn: "Merak etme birazdan bu belirti geçecek… Korkulacak herhangi bir şey yok… Birazdan her şey çok daha iyi olacak…") kendilerini telkin ettiklerini ifade etmiştir.

Mide yanması ve bulantısı deneyimleyen bir kadın katılımcı ise kişisel baş etme yöntemi olarak meditasyon yaptığını belirtmiştir. Katılımcı meditasyonun etkili olmasının sebebinin kendisine şefkat ve anlayış göstermek olduğunu vurgulamıştır. Meditasyon ile somatik semptomlarıyla daha işlevsel baş edebildiğini de ifade etmiştir.

Son olarak, bayılma semptomu deneyimleyen bir kadın katılımcı kişisel baş etme yöntemi olarak sıklıkla dua ettiğinden bahsetmiştir. Katılımcı duanın içeriğini, "Allah ile konuşmak ve ondan yardım istemek" olarak betimlemiştir. Bunun yanı sıra "Allah'ın kendisine en kısa zamanda yardım edeceğine dair inancının olmasının" da baş etmede yardımcı olduğunu da vurgulamıştır.

Alt-Tema 4: Tıbbi Yardım Arayışı ve Gelecek Planları

Kısa görüşmelere katılan tüm katılımcılar somatic semptomları için son iki yılda tıbbi yardım arayışı içerisine girdiklerini ifade etmişlerdir. Katılımcıların hiç biri somatik semptomları için son 6 aydır herhangi bir tıbbi yardım arayışı içerisinde değildir.

Mide yanması ve mide bulantısı deneyimleyen dokuz katılımcı daha evvel bir gastroenterolog tarafından tedavi edildiklerini ve mide koruyucu ilacın reçete edildiğini belirtmiştir. Bu dokuz katılımcıdan üçü endoskopi aracılığıyla detaylı muayene edildiklerini ve fiziksel herhangi bir rahatsızlık (örn: reflü, gastrit vb. gibi) karşılaşılmadığını ifade etmiştir. Gastroenteroloğa başvuran dokuz katılımcı, kendilerini muayene eden doktorların mide yanması ve mide bulantısının sebebinin "psikolojik olabileceğini" söylediklerini de ayrıca belirtse de katılımcılardan hiç biri psikolog veya psikiyatriste başvurmamıştır.

Bayılma semptomu deneyimleyen bir kadın katılımcı ise iki sene önce nöroloğa başvurduğunu, beyin tarama testlerinde herhangi bir fiziksel rahatsızlığın tespit edilmediğini ve dolayısıyla bir psikiyatriste yönlendirildiğini ifade etmiştir. Katılımcı, iki yıl önce psikiyatriste yönlendirme üzerine gittiğini ve bir yıl boyunca, reçete edildiği gibi, antideperesan kullandığını belirtmiştir. Katılımcı son bir yıldır antideperesan almadığını ve daha önce hiç bir psikologla görüşmediğini de belirtmiştir.

Mide bulantısı ve mide yanması yaşayan yedi katılımcı (beş kadın, iki erkek) ile bayılma semptomu deneyimleyen bir kadın katılımcı yakında bir psikolog ile görüşmeyi planladıklarını belirtmiştir. Kısa görüşmelere katılan ve somatik semptom deneyimleyen üç katılımcı ise ilerleyen süreçte psikolog veya psikiyatrist ile görüşmeyi planladıklarına dair herhangi bir bilgi vermemiştir.

4. TARTIŞMA

4.1. Niceliksel Bulguların Tartışılması

Güncel çalışmanın niceliksel bölümünün amacı somatik semptomların yordayıcılarının belirlenmesidir. Bu doğrultuda, alanyazındaki çalışma bulgularıyla da uyumlu olarak, yaş, sosyoekonomik seviye, duygu ifade edememe, depresyon, anksiyete, fobik anksiyete, obsesif kompülsiflik, öfke, kişilerarası duyarlılık, paranoid düşünceler, psikotizm, bireyselcilik ve

toplulukçuluk değişkenlerinin somatik semptomları yordayıcılığı araştırılmıştır. Üç basamaklı hiyerarşik çoklu regresyon analizi yürütülmüştür.

Bulgular bölümünde de belirtildiği üzere yaş değişkenin regresyon analizinin yalnızca üçüncü ve son basamağında anlamlı bir yordayıcı olduğu ortaya çıkartılmıştır. Bir başka deyişle, yaş değişkeni somatik semptomları ancak ve ancak psikolojik değişkenler modele eklendiğinde yordayabilmektedir. Bu sonuç, alanyazındaki diğer çalışmalarda da önerildiği gibi, yaş değişkeninin diğer değişkenlerle (örn: psikolojik değişkenler) ilişki içerisine girerek somatik semptomları yordadığını göstermektedir. Bir başka deyişle, yaş değişkeni tek başına somatik semptomları yordayamazken psikolojik değişkenler (anksiyete, fobik anksiyete ve obsesif kompülsiflik) devreye girince yaş değişkeninin somatik semptomları yordayabileceği söylenebilir. Anksiyete, fobik anksiyete veya obsesif kompülsif semptomlar yaşayan ileri yaş bireylerinin somatik semptom deneyimleme risklerinin daha yüksek olduğu ifade edilebilir.

Yine bulgular bölümünde belirtildiği üzere, psikolojik değişkenler somatik semptomlardaki varyansın çoğunluğunu açıklamaktadır. Bir başka deyişle, anksiyete, fobik anksiyete ve obsesif kompülsif semptomların somatik semptomları yordamada diğer değişkenlere göre (demografik değişkenler, kültürel değişkenler ve duygu ifadememe) daha kuvvetli olduğu söylenebilir.

Anksiyete ve fobik anksiyete, hipotez edildiği gibi somatik semptomları yordayabilen anlamlı değişkenlerdir. Bir başka deyişle, katılımcılar herhangi bir anksiyete bozukluğu tanısı almamış olsa dahi, anksiyete semptomlarına sahip olduklarında somatik semptom deneyimleme şansları da artmaktadır. Bu durum, depresyon değişkeni için ise geçerli değildir. Depresyon değişkeni, regresyon analizinde somatik semptomların anlamlı bir yordayıcı değildir. Bir başka deyişle, klinik olmayan popülasyondaki depresif semptomların somatik semptomlarla bir ilişkisi olmadığı görülmüştür. Bireylerin ancak ve ancak major depresif bozukluk tanısına sahip olmuş olmaları somatik semptom deneyim riskini arttırmaktadır.

Hipotez edildiği gibi obsesif kompülsiflik somatik semptomların bir yordayıcısıdır. Güncel çalışma, obsesif kompülsif semptomların somatik semptomların en güçlü yordayıcı olduğunu ortaya çıkartmıştır. Bu olgunun altında yatan sebep korona salgını olabilir. Alanyazındaki çalışmalar korona salgını ile beraber bulaş kaygısının klinik olmayan popülasyonda da anlamlı bir şekilde arttığını göstermektedir (Sheu, McKay ve Storch, 2020). Bir başka deyişle, bulaş kaygısı obsesif kompülsif semptomların altında yatan temel kaygılardan biridir ve salgın döneminde artmış olan bu bulaş kaygısının somatik semptom deneyimini etkileyebileceği alanyazında diğer çalışmalarda da gösterilmiştir (Colizzi ve ark., 2020; Liu ve ark., 2020). Korona salgınının obsesif kompülsif özelliklerin somatik semptomların en güçlü yordayıcı olup olmadığı ile ilişkisi başka istatistiksel analizlerle incelenebilir.

Cinsiyetin somatik semptomlar üzerinde bir etkisi olmadığı tek yönlü denekler arası varyans analizi ile ortaya çıkartılmıştır. Bu sebeple, cinsiyet değişkeni, somatik semptomların yordanması için yürütülmüş hiyerarşik çoklu regresyon analizine dahil edilmemiştir. Cinsiyetin özellikle klinik olmayan popülasyondaki somatik semptomlarla bir ilişiğinin olmadığı söylenebilir.

Sosyoekonomik seviyenin somatik semptomlarla negatif bir ilişki içerisinde olduğu tespit edilmiştir. Bir başka deyişle, düşük sosyoekonomik seviyeye sahip bireylerin somatik semptom deneyimleme ihtimalleri daha yüksektir. Güncel bulgu, alanyazındaki diğer çalışmalarca da desteklenmiştir (Huure ve ark., 2005; San Sebastian ve ark., 2015). Ek olaral güncel çalışmada sosyoekonomik seviye yalnızca eğitim ve gelir seviyesi ile belirlenmemiştir. Bu sebeple güncel çalışmadaki bu bulgu yalnızca gelir ve eğitim seviyesinin somatik semptomların yordayıcı olduğunu göstermemekte, ek olarak hane halkının toplam gelir ve eğitim seviyesinin, mülkiyetlerin, hane halkının profesyonel ve mesleki durumlarının da somatik semptomları yordadığını göstermektedir. Güncel çalışmaya katılan katılımcıların %70'i üniversite mezunudur. Alanyazındaki çalışmalar, beş yıldan az formal eğitim almış bireylerin kültür farklılığı gözetmeksizin daha çok somatik semptom deneyimleme ihtimallerinin olduğunu

ortaya koymuştur (Gureje ev ark., 1997). Bu doğrultuda güncel çalışmaya daha düşük eğitim seviyesine sahip katılımcıların katılmış olması bu katılımcıların somatik semptom deneyimleri hakkında daha çok bilgiye sahip olunmasına sebep olabilirdi.

Kültürel değişkenlerin de somatik semptomların yordayıcıları olduğu tespit edilmiştir. Bireyselcilik değişkenin somatik semptomlarla negatif, toplulukçuluk değişkenin ise somatik semptomlarla pozitif ilişki içerisinde olduğu ortaya çıkartılmıştır. Bir başka deyişle, toplulukçu arka plana sahip bireylerin somatik semptom deneyimleme ihtimalleri daha fazladır. Bu olgunun sebebi, alanyazındaki önermelerin de doğrultusunda, grup içerisinde nasıl algılandıkları, yaşadıkları sebebiyle olası bir utanç hissetmeleri veya grup içerisinden dışlanma korkusuna sahip olmaları olabilir (Desai ve Chaturvedi, 2017; Katon ve ark., 1984; Keyes ve Ryff, 2003; Kleinman ve Kleinman, 1985; Parsons ve Wakeley, 1991).

Hipotez edilmesinin aksine duygu ifade edememenin somatik semptomları yordamadığı görülmüştür. Bu olgunun olası bir sebebi, katılımcıların duygu ifade edememekten öte duygularını anlayabilme yetilerinin ve duygu farkındalıklarının az olması olabilir. Bu durum, kısa görüşmelerdeki cevapların neden yüzeysel olduğunu da açıklayabilir.

4.2. Kısa Görüşme Bulgularının Tartışılması

Kısa görüşmelere katılan 10 katılımcının dördü orta sosyoekonomik seviyeye, altısı ise yüksek sosyoekonomik seviyeye sahiptir. Kısa görüşmelere katılan tüm katılımcılar toplulukçu bir kültürel arka plana sahiptir. Katılımcılarla yapılan görüşmeler her ne kadar ortalama 41.5 dakika sürse de katılımcıların verdikleri cevap oldukça sığ ve derinliksizdir. Bu olgunun sebeplerinden bir tanesi kültürel değişkenler olabilir. Katılımcıların hepsi toplulukçu bir kültürel arka plandan geldiği için görüşmeler sırasında olası bir utanç duygusu veya dışlanma/etiketlenme kaygısı ile cevaplarını derinliksiz bırakmış olabilirler.

Bunun yanı sıra, kısa görüşmelere katılan katılımcılar duygularını ifade edememenin ötesinde duygularına dair farkındalığa sahip olmayabilirler. Bu durum, hiyerarşik çoklu regresyon analizi sırasında hiç bir basamakta duygu ifade edememenin somatik semptomları yordayamadığı ile de ilintili olabilir.

Benzer bir argüman, katılımcıların somatik semptomları için yönlendirilseler dahi psikolog/psikiyariste başvurmamaları ile ilgili de öne sürülebilir. Alanyazında yapılmış çalışmalarda da görüldüğü üzere toplulukçu bir kültürel arka plandan gelen bireyler psikolog/psikiyatrist görüşmelerine grupları içerisindeki olası bir etiketlenme sebebiyle olası dirençli olabilirler (Kuruvilla ve Jacobs, 2012). Bunun yanı sıra, katılımcıların duygu farkındalığı olmadığı için de psikolog/psikiyatrist görüşmelerinin amacını anlamamış ve dolayısıyla gerek duymamış olabilirler.

4.3. Tüm Bulguların Tartışılması

Güncel çalışma, yaş, sosyoekonomik seviye, bireyselcilik, toplulukçuluk, anksiyete, fobik anksiyete ve obsesif kompülsif özelliklerin somatik semptomları yordadığını ortaya çıkartmıştır. Özellikle, obsesif kompülsif belirtilerin somatik semptomların en güçlü yordayıcısı olduğu tespit edilmiştir. Korona salgını ile artan bulaş kaygısı, tüm bireyler obsesif kompülsif özelliklerin artmasına ve bunların da somatik semptom deneyimlerini arttırmasına sebep olabileceği söylenebilir.

Kısa görüşmelerde katılımcılar somatik semptomlarının sebepleri olarak "çok düşünme"yi de öne sürmüştür. "Çok düşünme", daha önce de belirtildiği gibi, ruminasyon olarak kavramsallaştırılabilir. Ruminasyonun obsesif kompülsif örüntülerin temel özelliklerinden biri olduğu düşünülürse, obsesif kompülsif özelliklerin hiyerarşik çoklu regresyonda anlamlı bir yordayıcı olarak belirmesi şaşırtıcı değildir. Bir başka deyişle, obsesif kompülsif özelliklerin somatik semptomlardaki rolü kısa görüşmelerde de kendini göstermiştir.

Kısa görüşmelerdeki sığ ve derinliksiz cevapların varlığı ise hiyerarşik çoklu regresyon analizinin hiç bir basamağında duygu ifade edememenin anlamlı bir yordayıcı olarak belirlemesi ile ilişkili olabilir. Bir başka deyişle, kısa görüşmelerdeki sığ ve derinliksiz ifadelerin, duygu ifade edip edememe ile ilgili olmadığı duygu ifade edememenin anlamlı bir yordayıcı olmamasıyla da desteklenmektedir. Bu doğrultuda, kısa görüşmelerdeki sığ ve derinliksiz ifadelerin sebebinin duygu farkındalığı yetisinin olmaması ihtimalinin olduğu da söylenebilir. Bu hipotezin desteklenebilmesi için güncel çalışma duygu farkındalığı değişkeni eklenerek tekrarlanabilir.

4.4. Güçlü Yanlar, Sınırlılıklar ve Gelecek Araştırmalar için Öneriler

Güncel çalışma somatik semptom etiyolojisi ve bireysel kavramsallaştırılması amacıyla dizayn edilmiş bütünsel bir çalışmadır. Çalışmanın hem niceliksel hem de niteliksel öğeler barındırması çalışmanın güçlü yanlarından bir tanesidir.

Güncel çalışmanın bir diğer güçlü yanı ise kültürel değişkenlerin Türkiye kültürüne özgü içerikler barındıran bir ölçekle (IND-COL) değerlendirilmesidir. IND-COL Ölçeğindeki ifadeler Türkiye popülasyonundaki kültürel durumlara göre revise edilmiştir. Aynı ölçeğin Türkiye popülasyonu için geçerlik-güvenirlik çalışması çok yakın bir tarihte yapılmıştır (201); bu da ölçeğin ölçtüğü içeriğin güncel yaşamdaki gerçek karşılığına işaret etmektedir.

Çalışmanın en büyük sınırlılıklarından bir tanesi yüzeysel cevaplar içermiş olan kısa görüşmelerdir. Sığ ve derinliksiz ifadelerin sebebi tam olarak bilinmemekle birlikte, hiyerarşik çoklu regresyon analizinde duygu ifade edememe değişkenin anlamlı bir yordayıcı olmamasıyla beraber, bu olgunun sebebinin katılımcıların duygu farkındalığının az olması olduğu söylenebilir. Bu doğrultuda güncel çalışma duygu farkındalığı değişkeni eklenerek tekrarlanabilir.

Daha önce de belirtildiği üzere, güncel çalışmadaki veriler korona salgını sırasında toplanmıştır. Korona salgı ile ilişkisi alanyazındaki çalışamalarca da

gösterilmiş olan obsesif kompülsif özellikler, güncel çalışmada somatik semptomların en güçlü yordayıcı olarak kendisini göstermiştir. Korona salgınının bu bulgudaki rolü tam olarak bilinememektedir. Dolayısıyla, güncel çalışma korona salgını bittikten sonra tekrarlanabilir ve obsesif kompülsif özelliklerin somatik semptomların gerçek güçlü yordayıcısı olup olmadığı anlaşılabilir.

Yine korona salgını sırasında veri toplandığı için niceliksel çalışmaya ait veriler elektronik ortamda elde edilmiştir. Elektronik ortam aracılığıyla katılımcılardan elde edilen verilerin temsil edilebilirliği tartışılabilir. Özellikle düşük sosyoekonomik ve eğitim seviyesindeki katılımcıların sayıca az olması güncel çalışmanın temsil edilebilirliği açısından bir sınırlılık teşkil etmektedir. Bu doğrultuda güncel çalışma korona salgını bittikten sonra düşük sosyoekonomik ve eğitim seviyesindeki bireylere daha rahat ulaşılabileceği koşullarda tekrarlanabilir.

4.5. Klinik Uygulamalar

Güncel çalışma somatik semptomların yönetimi açısından faydalı olabilir. Klinik olmayan popülasyondaki somatik semptom deneyiminin anlaşılması özellikle tıbbi ortamlarda bu semptomların nasıl yönetilebileceği hakkında aydınlatıcı işlev görebilir. Alanyazındaki çalışmalar, tıp doktorlarının somatik semptom deneyimleyen bireylerle çalışmakta zorlandıklarını ortaya koymaktadır (Wileman ve ark., 2002). Bireylere deneyimledikleri somatik semptomların sebebinin fiziksel olmadığı söylendiğinde bireyler durumu kabullenmekte oldukça zorlanmakta ve dolayısıyla yönlendirmelere kendileri kapatmaktadırlar (Wileman ve ark., 2002). Bu doğrultuda, bireyler de deneyimledikleri semptomların fiziksel değil de psikolojik kökenli olabileceklerine dair bilgi sahibi olurlarsa somatik semptomların yönetilmesi daha kolay olacaktır.

Ek olarak, psikolojik değişkenlerin (anksiyete, fobik anksiyete ve obsesif-kompülsiflik) somatik semptomlardaki varyansın çoğunun açıkladığı öne sürülmüştür. Bu bulgu ışığında psikolog/psikiyatriste başvuran ve somatik semptom deneyimleyen bireylerin anksiyete, fobik anksiyete veya obsesif

kompülsif özellikler gösterebileceği akılda tutularak formülasyon ve terapide hızlı yol alınabilir. Bununla beraber özellikle korona salgının devam ettiği süreçlerde somatik semptom ile başvuran bireylerin osesif kompülsif özellikler gösterebileceğine dair bir bilinç hem semptomların yönetilmesinde hem de tedavisinde hayli yol gösterici olacaktır.

Günümüzde somatik semptomların tedavisinde en çok kullanılan terapi yöntemleri bilişsel davranışçı terapi (BDT) ve bilinçli farkındalık temelli terapilerdir (Kroenke, 2007; Kroenke ve Swindle, 2000; Sumathipala, 2007; Williams, Russell, ve Russell, 2008; Tyrer, Cooper, Salkovskis ve Barrett, 2013). Bu her iki terapi yönelimi öncelikli olarak bireylerin yaşadıkları duyguları fark etme ve ardından fark edilen duygularla bedensel belirtilerin (somatik semptomların) birbirinden ayırt edilmesine yöneliktir. Duygular ve somatik semptomlar fark edilip birbirilerinden ayırt edildikten sonraki temel amaç bu semptomlarla işlevsel bir şekilde başa çıkma mekanizmaları inşaa etmektir. Güncel çalışma da, bu doğrultuda, bireylerin duygu ifade edemeyip ifade edemedikleri duyguları somatik semptomlara dönüştürmesinden öte, bireylerin duygularının farkında olmadığına işaret etmektedir. BDT ve bilinçli farkındalık temelli terapi yönelimlerinin amaçlarıyla uyumlu olarak, güncel çalışma psikolog/psikiyatristlere bireylerin en öncelikle duygularının fark etmeleri üzerinde çalışmaları gerektiğine dair vurgu yapmaktadır.

APPENDIX L. THESIS PERMISSION FORM / TEZ İZİN FORMU

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YAZARIN / AUTHOR

Soyadı / Surname : Paker
Adı / Name : Melisa Aşkım
Bölümü / Department : Psikoloji / Psychology

TEZİN ADI / TITLE OF THE THESIS (**İngilizce** / English) : Understanding Somatic Symptoms: A Mixed Method Investigation of Predictors and Experiences

TEZİN TÜRÜ / DEGREE: **Yüksek Lisans** / Maste ☐ **Doktora** / PhD ☒

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