THE RELATIONSHIP BETWEEN BIG FIVE PERSONALITY TRAITS AND PSYCHOLOGICAL RESILIENCE OF HEALTHCARE PROFESSIONALS

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PLAGIARISM

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ABSTRACT

In literature, there are several studies focusing on the relationship between big five personal traits and psychological resilience. However, the studies researching this relationship solely in healthcare professionals are rare. Therefore, this study will be an innovative study for the literature to examine the personality traits and psychological resilience of healthcare professionals. The aim of this study is to examine the relationship between the personality traits and psychological resilience. This study has six hypotheses: 1) resilience and neuroticism are negatively correlated, 2) resilience and extraversion are positively correlated, 3) resilience and consciousness are positively correlated, 4) resilience and openness to new experience are positively correlated, 5) resilience and agreeableness are positively correlated 6) big Five personality traits significantly predict psychological resilience. The sample of the study consists of 412 healthcare professionals. Resilience is measured by the averages of Brief Resilience Scale and the Five Factor Personality traits measured by the averages of Adjectives Based Personality Scale. As a result, a negative correlation was found with resilience and neuroticism. A positive relationship was found between resilience and extraversion, conscientiousness and openness to new experiences. However, no relationship was found between resilience and agreeableness. In addition, the neuroticism and extraversion, significantly explain resilience; openness to experience, agreeableness and conscientiousness did not significantly explain psychological resilience.

Keywords: personality traits, healthcare professionals, psychological resilience

ÖZET

Literatürde beş büyük kişilik özellik ile psikolojik dayanıklılık arasındaki ilişkiye odaklanan çeşitli çalışmalar vardır. Ancak, bu ilişkiyi sadece sağlık personellerinde araştıran çalışmalar nadirdir. Bu nedenle, bu çalışma literatürde, sağlık çalışanlarının kişilik özelliklerini ve psikolojik dayanıklılığını inceleyen yenilikçi bir çalışma olacaktır. Bu tezin amacı sağlık çalışanlarının kişilik özellikleri ile psikolojik dayanıklılıkları arasındaki ilişkiyi incelemektir. Bu çalışmanın 6 hipotezi vardır: 1) psikolojik dayanıklılık ve növratizm negatif yönde ilişki içerisindedir, 2) psikolojik dayanıklılık ve dışa dönüklük pozitif yönde ilişki içerisindedir, 3) psikolojik dayanıklılık ve sorumluluk pozitif yönde ilişki içerisindedir, 4) psikolojik dayanıklılık ve açıklık pozitif yönde ilişki içerisindedir, 5) psikolojik dayanıklılık ve uyumluluk pozitif yönde ilişki içerisindedir 6) beş büyük kişilik özelliği psikolojik dayanıklılığı yordamaktadır. Araştırmanın örneklemi 412 sağlık çalışanından oluşmaktadır. Psikolojik dayanıklılık, Kısa Psikolojik Sağlamlık Ölçeği ile Beş Faktörlü Kişilik Özellikleri ise Sıfatlara Dayalı Kişilik Ölçeği ortalamaları ile ölçülmektedir. Sonuç olarak, psikolojik dayanıklılık ve növratizm arasında negatif yönde bir ilişki bulunmuştur. Buna ek olarak, psikolojik dayanıklılık ile dışa dönüklülük, sorumluluk ve açıklık arasında pozitif yönde ilişki bulunmuştur. Fakat, psikolojik dayanıklılık ile uyumluluk arasında ilişki bulunamamıştır. Beş faktörlü kişilik özelliklerinden növratizm ve dışa dönüklülük boyutlarının psikolojik dayanıklılığı açıkladığı görülmüş olup; deneyime açıklık, yumuşak başlılık ve sorumluluk özelliklerinin psikolojik dayanıklılığı anlamlı şekilde açıklamadığı görülmüştür.

Anahtar Kelimeler: *kişilik özellikleri, sağlık çalışanları, psikolojik sağlamlık*

To My Family,

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1.INTRODUCTION

1.1 What is Psychological Resilience?

Positive psychology made a remarkable impact on psychological research in the last century. Seligman and Csikszentmihalyi (2014) defined positive psychology as "not just the study of pathology, weakness and damage: it is also the study of strength and virtue" p.284. Positive psychology is a new movement that targets to examine wellbeing and prosperity of the people (Reivich & Shattẻ, 2002). One of the concepts of positive psychology which exists in the current literature is the resilience.

The word resilience originated from Latin language resilio which means to leap or spring back or rebound (Fletcher & Sarkar, 2013). Considering the dictionary definitions of the resilience, according to Turkish Language Association it is defined as the state of stamina and fortitude. According to the Oxford English Dictionary (1978), it is defined as recovering quickly when crushed and compressed. In addition to the mentioned definitions above, The American Heritage Dictionary, analogously (2005), resilience is defined as fast recovery from change, illness and misfortune. Despite the increase in studies about resilience in the psychology, there is no agreement about definition of resilience in the literature. Initially, Garmenzy (1991) defined resilience as positive adaptation despite adversity. Werner and Smith (1992) described resilience as adapting to situations in a positive way after living distressing experiences. Thereafter, researchers suggested one of the most popular definitions, which states that resilience is an ability to bounce back (Luthar et al., 2000).

With the inconstancy of the definition of resilience, there are some arguments about the nature of resilience. It is not clear whether resilience is an innate factor or a process during difficult times or an outcome after living stressful events.

To begin with, proponents of innate feature suggest that we are all born with intrinsic resiliency, with the capacity to create the characteristics commonly found in strong survivors (Benard, 1991). As a trait, resilience supports positive development and adaptation in traumatic, difficult and stressful life event (Wagnild & Collins, 2009). According to the second view, resilience is a process rather than an innate feature. It could be developed by individualistic and environmental factors (Basım & Çetin, 2011; Masten et al., 1990). As a dynamic process, the term of resilience is the individual's healthy and sound change and also adaptability despite encountering difficulties (Luthar, 1991; Luthar et al., 2007; Masten, 2001). As a multidimensional process, it includes relationship of individual with family, social environment during negative life events and development process (Ungar, 2008) Therefore, resilience could vary with regard to these factors in an individual's life. Moreover, it is thought that resilience could be gained as an effective outcome coping with stressful and difficult events. Thanks to resilience, people could obtain positive experience, such as not only a change in self-perception, interpersonal relation but a change in life philosophy and world view as well (Basım & Çetin, 2011). Therefore, resilience could be an important factor to interfere with psychological disorders after stress evoking events. The resilience gained by effective coping with stress could be an important factor for treatments of psychological disorders such as depression, anxiety disorders (Connor & Davidson, 2003).

Although there are different views about resilience, most of them commonly rely on adversity and positive adaptation (Fletcher & Sarkar, 2013; McCubbin, 2001).

Adversity could be a stressful life event and positive adaptation which is could be related to normal functioning after encountering negative life events. With the consideration of these elements, definition of Rutter (1985) for psychological resilience "the ability of bounce back or to cope with adversity" could capture all these perspectives. Therefore, the resilience could be described as the power of staying in balance in psychological well-being and recovery after a stressful life event.

1.2 Characteristics of Resilient Individual

There are several qualities for resiliency suggested in the literature. Coutu (2002) suggested that real resilience requires ability to admit reality, a strong idea that life is meaningful and resilience has a remarkable tendency to adapt. Despite becoming truly resilient, one should have all qualities, and be able to battle against with the issues. In addition, the main characteristic features of resilient people are as follows: They must be extroverted, active, optimistic, social, assertive, and energetic (Çetin et al., 2015). Being calm, relaxed and even-tempered make resilient people strong against the neurotic conditions (Everly et al., 2012; Mao et al., 2019). Being offbeat, as well as being willing to address specialist and willing to engage novel thoughts get them high in openness to new experiences. Being philanthropist, considerate to others and also being energetic to assist the other people get them high in agreeable. Besides, being organized, hardworking, self-controlled get them high again in consciousness (Çetin et al., 2015).

1.3 Core concepts of Psychological Resilience

1.3.1 Internal and External Factors

There are internal and external factors affecting the psychological resilience (Çam & Büyükbayram, 2015). Internal factors are related to person's own resources. External factors are related to independent from personal resources. Internal factors include characteristics of personality such as positive self-perception, autonomy, emotional intelligence skills (e.g. awareness of emotions, expressing and managing emotions), creativity, openness, hope development (Cameron & Brownie, 2010; Garcia-Dia et al., 2013; Margaret & Lowe, 2011; Öz, 2009). In addition, some internal factors could be confused with terms of resilience. These are hardiness, identity continuity and self-efficacy.

Hardiness is a personal characteristic to understand and to define psychological resilience. People who are high on hardiness think that they have an effect on accidents and usually perceive traumatic events as challenge, but not as a destructive matter. (Maddi, 2006). They seek for responsibility and resist to dreadful conditions (Fhyn et al., 2016). In addition; they are certain about their aims, capacity, benefits and they are strongly connected with their environment. Regardless of a potentially traumatic event, they use their inner sources in a productive way and search for a meaning beyond their experiences (Maddi, 2006). No doubt, their inner power and ability to shapes their lives (Price, 2019).

Identity continuity is another factor which accompanies with the sense of coherence among resilient people (Mancini & Bonanno, 2009). Potentially damaging incidents usually interrupt people's routines and habits. For instance, people who have lost a significant other feel that a part of them is lacking which result in the lost feeling of a continuous and complete identity. However; resilient people recover from the traumatic situation with only alteration of identity. Therefore, resilient people cope with the disaster better (Mancini & Bonanno, 2006).

Self-efficacy is another factor that plays a role in resilience. Self-efficacy, as a part of social cognitive theory, is the ability to manage the surrounding situation and convinced to have the capability to withstand demanding aversive happenings by showing an adjustment to that situation (Bandura, 1997). Studies indicate that the possibility to overcome a challenging situation improves significantly when a person believes their skills (Benight & Bandura, 2004).

Beyond these internal factors, non-personal issues could affect resilience. These are called as external factors. For resilience, external factors include having a social environment that supports him/her in the fight against difficulties, professional experiences, professional satisfaction, awareness, adaptation, positive attitudes and behaviors in the workplace, social life, sharing his problems with colleagues, working in harmony with colleagues, appreciating the success of colleagues, sharing his experiences (Cameron & Brownie, 2010; Castleden et al., 2011; Garcia-Dia et al., 2013; Gito et al., 2013).

1.3.2 Risk and Protective Factors

Psychological resilience studies had been started with young people who were in high-risk populations. Studies especially focused on children who resists to overcome or demonstrates challanges (Rutter, 1987; Rutter, 2013). These studies examined internal and external factors that affected resilience. They conceptualized these factors as protective and risk powers, one of which increased resilience power, and the other decreased resilience power**.**

For protective factors, the common point is positive adaptation. It is defined as adjustment of negative circumstances in life (Flethcher & Sarkar, 2013). Internal

protective factors which enhance positive adaption could be listed as personality traits, improved motor skills, personal development skills, adaptation skills, easy temperament,-intellectual ability, having sense of humor, empathy, social problem-solving skills, and an inner locus of control (Rutter, 1987; Stewart, 2014).

As related to risk factors, the phenomenon of adversity conditions, which decreases and prevents psychological resilience, has been considered. Adversity involves negative and stressful life events. With this perspective, first studies focus particularly on children who are in these risky conditions. These adverse life events include earlier developmental process of an individual. Having a parent, or caregiver with mental disorder, premature birth, separation of parents and living in a neighborhood with violence could be considered as risk factors(Rutter, 1987 ; Rutter, 2013).Thereafter, other traumatic events such as loss or death, war; interpersonal experiences such as exposure to violence, having a parent with psychological disorder, childhood abuse, neglect or maltreatment; life conditions such as poverty have been found as risk factors for resilience (Stewart, 2014; Ungar, 2013).

1.4 Resilience in Healthcare Professionals

Resilience is a key factor to understand medical staffs' survival in their work life. In order to develop psychological resilience, it is necessary to encounter a stressor (Vella et al., 2019). Healthcare professionals provide care services to patients who are in difficult circumstances. For that reason, work environments of healthcare professionals are challenging. The health area is regarded as a stressful work environment. Here, health care professionals serve the people who experience intense work stress. Resilience in all healthcare is important (Robertson et al., 2016). In studies with nurses, according to Çam and Büyükbayram (2015), psychological

resilience is an essential concept especially for nurses who have faced with many risk factors in their work life. Resilience is an attribute that can assist nurses to adapt successfully to the demanding physical, mental and emotional nature of their profession. Resilience can be fostered and learnt when opportunities such as peer support, mentoring and self-reflections (Cameron & Brownie, 2010). Nurses experience many problems due to the stressful work life especially in the process of providing care to patients who are in difficult situations. This could evolve a problem in the health system (McCan et al., 2013). Work stress is defined as a situation that creates tension in the individual and arises due to physical or psychological reasons, and inadequacies in the individual's skills. Deaths are one of the work stresses that healthcare professionals have to face. Stressful work environment may include serious understaffing, an ageing workforce, a great increase of short-term contracted staff, and interpersonal issues such as bullying, abuse and harassment (Johnson, 2009). It appears that individuals become resilient when dealing with unpredictable stressful situations successfully and as a result develop self- confidence and competence (McCan et al., 2013). When nurses encounter an unexpected stressful situation; nurses' protective factors (personal, social, professional) improve their psychological resilience; It is stated that psychological resilience positively affects the development of skills such as self-confidence, autonomy, coping and adapting to the situation, creating a motivational life force in nurses (Çam & Büyükbayram, 2017).

In studies with medical doctors, they also have higher risk for anxiety, depression, substance abuse and suicide compared with the wider population. The nature of their profession often results in exposure to elevated levels of stress, high pressure environments and feelings of uncertainty. Working closely with patients and the complexity of the doctor-patient relationship introduce a number of both positive and

negative emotions. Long working hours and sleep deprivation have a detrimental effect on both physical and mental wellbeing. (Shanatafelt et al., 2012). Considering the daily stress faced by healthcare professional's resilience is defined as a protective factor. Therefore, resilience helps healthcare professional to adapt their work-stress (Evans et al., 2007). Resilience is more than a doctor's own personal resource, modifiable factors, such as social support and environmental contexts, are also key in determining a doctor's resilience (McKinley et al., 2019).

There are studies conducted for health professionals which include doctors nurses, medical students and paramedics. When the factors related to resilience in healthcare professionals have been examined, it is seen that personality is one of them (McKinley et al., 2019). Different factors of personality and different personality traits were examined with resilience (Bazrafshan et al., 2019; Çam & Büyükbayram, 2017).

1.5 Big Five Factor Model

Personality can be defined as a complex system that affects people's emotions, thoughts and behaviors (Mayer, 2007). In other words, personality shows the characteristics of a person who has consistent feeling, thinking, and behaving (John et al., 2010). Different theories have been developed to explain personality. Some of them have made more emphasis on understanding roots of personality, some of them have given more effort to explain personality characteristics (Yazgan-İnanç & Yerlikaya, 2015).

Trait psychology is one of the theories that focus on explanation of elements of personality. The first studies on the trait approach are based on Gordon Allport's research. He etymologically searched the origin of the word personality in his book. Allport (1937) defined personality in the form of dynamic organizations that

individuals use to adapt to their environment and exist in the individual. In the following years, other pioneers of the theory examined personality with factor analysis method,-and they assumed the universality of personality dimensions and claimed that personality traits could be measured quantitatively (Yazgan-İnanç & Yerlikaya, 2015). At the starting point, the basic assumption of the view is that the basic individual differences can be encoded in all languages, and these codes can be reflected in the language as words. After this encoding, classification can be made to cover the personality structures of individuals based on these words (Somer & Goldberg, 1999; Soto et al., 2016). McCrea and Costa also adapted this method similarly in the process of construction of their model. McCrea and Costa focused on the dimensions of extraversion and neuroticism at the beginning of their studies, they later added the concept of openness to experience as a new sub-dimension of personality to the big five personality model (Costa & McCrae, 1983). Personality was considered as a three-dimensional structure: extraversion, neuroticism and openness to experience (Costa & McCrae, 1983). Then, McCrea and Costa (1987) suggested Big Five Factor Model. This model became one of the most popular models in trait psychology (McCrae & Costa, 1991). In this model, they revealed for the first time that there are five basic personality dimensions, or factors. These are openness to new experiences, conscientiousness, extraversion, agreeableness and neuroticism. According to Costa and McCrae (1992), factors are based on persistent dispositions and biological process and also, traits related to factors are consistent with their natural language definitions and reflects difference in cultural expressions. According to Costa and McCrae (1992), factors are based on persistent dispositions and biological process.

1.5.1 Extraversion

Being extraversion is associated with relationships with others. The amount of interaction between people, capacity for need and joy, and activity level are expressions that correspond to extraversion. Individuals who score high on the extraversion dimension are optimistic, playful, active, talkative, social joking and tend to be affectionate (Costa & Widiger, 1994; Thompson, 2008). On the other hand, at the end of the extraversion dimension there are introversion, shyness, silence, secretiveness, distant and passive stance, liking to loneliness which are among the characteristics of introverted individuals (Thompson, 2008). Studies related to extraversion indicate that extraversion is related to positive experiences. It has been suggested that extraversion is positively correlated to happiness and positive affect (Argyle & Lu, 1990) Extraverted people are more likely to enjoy and participate more in social activities, and that happiness is also found as they have experienced high level of happiness, enjoyment and participation in social activities (Costa & McCrae, 1980; Smillie et al., 2015).

1.5.2. Openness to New Experience

Openness to new experience is related to individuals who are willing to try different things and who are comfortable while interacting with new people. Curiosity, creativity, being open to new ideas and willingness to experience new values are characteristics of individuals who are open to new experience (Thompson, 2008). Diversely, people who score low for openness to experience are closed, dogmatic, tied to traditions in their beliefs and attitudes, strict, and conservative. They are also emotionally unresponsive (Thompson, 2008). In addition, studies related to openness to new experience indicate that higher scores are associated with lower job

performance (Barrick et al., 2001). It is pointed out that some different personality characteristic may affect the relationship between openness to new experience and job performance (Witt et al., 2002). They clear out that low openness is distinctive to the job performance of extraverts and in individuals with low emotional stability.

1.5.3 Conscientiousness

Conscientiousness dimension is also called as self-discipline and it is linked to being controlled, success oriented and organized (McCrae & Costa, 2003). Individuals with high scores on the conscientiousness dimension tend to be planned, organized and determined, meticulous, ambitious, punctual, hardworking and reliable (Burger, 2016; Thompson, 2008). Individuals with low conscientiousness scores are distracted, aimless, negligent, untrustworthy, and tend to quit or avoid working when the difficulty level of any job they are interested in increases (Burger, 2016 & Thompson, 2008). Conscientiousness is one of the factors which protects individual's health. If the conscientiousness scores are high, better academic performance, job satisfaction and job performance could be expected (Barrick et al., 1991; Corker et al., 2012). Although conscientiousness is positive, good and a desirable feature, it has also a role in negative situation. Fayard et al. (2012) suggested that high level of conscientiousness could contribute to obsessive compulsive disorder. In another study, consistency is found as a strengthening factor for relationship between conscientiousness and obsessive-compulsive disorders symptoms that decrease well-being of the individuals (Carter et al., 2016). Moreover, people who are extremely conscientiousness have been observed giving more negative reactions to negative feedback for their performance, and adverse life events (Boyce, et al., 2010).

1.5.4 Agreeableness

Agreeableness is an interpersonal dimension and it positions people on showing compassion and it is related to being in harmony with other people. Individuals who score high on this dimension tend to be helpful, benign, sensitive, easily upset, trustworthy, altruistic, forgiving, sensitive and empathetic, and expect others to think and act like them. Individuals with lower scores are defined as sarcastic, skeptical, uncooperative, aggressive, nervous, self-interested, and they tend to have a sense of revenge (Costa & Widiger, 1994). These people are often referred as incompetent to establish interpersonal relationships (Şahin, 2017). For instance, Jensen and Graziano (2001) gave conflict scenarios in their study, they found that people with who was higher on agreeableness scores showed that compromise usage was more appropriate, and destructive tactics was less preferred.

1.5.5 Neuroticism

Neuroticism points the emotional instability (Costa & Widiger, 1994). People with a high degree of neuroticism are ecstatic and anxious, changeable, distressed (Burger, 2016; Thompson, 2008), feeling pity for themselves, insecure and finally more prone to psychological distress (Costa & Widiger, 1994; Burger 2016). Neurotic individuals draw a fluctuating scenario in their social relationships in terms of experience of emotions (Larsen et al., 2010). On the other hand, people with lower neuroticism scores are comfortable and adaptable, unworried, unenvious, unworried, and they show adaptive emotional reactions (Thompson, 2008). Besides this, it is clear that neuroticism has a relationship with negative emotions. The consensus on neuroticism has been created with negative emotions including anxiety, fear and sadness (Clark & Watson, 1999; Widiger, 2009). In addition, the relationship between

neuroticism and psychopathology can be found in the literature that includes anxiety, mood disorders, and substance use disorders (Kotov et al., 2010; Vollebergh et al., 2001; Ruiz et al., 2008). Actually, drug use and depression are more common in people with high neuroticism scores when compared with normal scores (Duggan et al., 1995; Valero et al., 2014).

1.6 Relationship Between Big Five Personality Model and Resilience

Relationship is found between resilience, personality and healthcare professionals (Bazrafshan et al., 2019; Çam & Büyükbayram, 2017). In a study with nurses and paramedics, results showed that extraversion, openness to experience, agreeableness, and conscientiousness had a positive and significant correlation with the resiliency variable, and it was only the trait of neuroticism had a negative correlation with the resiliency (Bazrafshan et al., 2019). The results obtained by Çetin et al. (2015) show that psychological resilience has a positive relationship with extraversion, consciousness, agreeableness and openness to experience, and a negative relationship with neuroticism. Another study with Chinese medical students, resilience found as a mediator in the relationships between agreeableness, conscientiousness, openness and anxiety symptoms (Shi et al., 2015) In addition, Friborg et al. (2005) found that there is a significant relationship between psychological resilience and five-factor personality traits. In detail, personal strength subscale, one of the sub-branches of the psychological resilience scale. It was found to be mostly associated with neuroticism, extraversion, and agreeableness. Also, psychological resilience was found as negatively correlated with neuroticism (Furnham et al.,1997). In another study with bank employees, psychological resilience was associated with extraversion and openness to new experience (Çavuşoğlu et al.,

2018). Topcu (2017) found that resilience and neuroticism scores of university students had negative correlation, while there was positive correlation in resilience scores for extraversions, and for the ones who were open to experience, being agreeable and conscious among university students.

Awareness of personality traits leads to better management, and since resilience is an educable and changeable variable, health professional who lack effective personality traits can be improved by increasing resiliency (Bazrafshan et al., 2019).

1.7 The Current Study

When we consider the first humans in the world, they have stressors like being eaten by an animal or finding food from the forest. Today, we face different stressors and everyone experiences stress at one time or another. In addition, stress is usually resulted by negative consequences which can affect physical health (Watson & Pennebaker, 1989). However, people can adapt this stress through time. In today's world, work is the place that we spend most of the time. The work environments of healthcare professionals differ from other work environments due to the difficulty of serving patients suffering from severe stress, and also healthcare professionals facing stressful situations in their daily work environments (Yıldız et al., 2003). Health professions cope with various stressors inside the clinical work; such as time, work pressure and emotional outcomes. The work life of healthcare workers can be affected physically and mentally in general. Healthcare professionals may experience burnout and traumatic stress (McCann et al., 2013). Caring others is daily routine of health professionals. However, the negative inputs like stress might negatively affect the wellbeing (Barnett et al., 2007). The one of the powerful factors that helps to stress adaption is the phenomenon called psychological resilience. Psychological resilience

is the ability of overcome difficult events after the stressful experiences (Çetin et al., 2015). Personality is also one of essential tools to understand resilience. According to McCrae and Costa (1987) the founders of big five personality traits consist of openness to new experiences, conscientiousness, extraversion, agreeableness and neuroticism.

In this study, it is aimed to examine the relationship between the five factor personality traits and psychological resilience of healthcare professionals. It is essential to distinguish which personality traits are in the foreground for psychological resilience of healthcare professionals. This thesis aims to find an answer to the question of whether there is a relationship between the psychological resilience of healthcare professionals, big five personality traits and sociodemographic variables.

Considering the literature review in the healthcare professions;

H1: There is a positive relationship between extraversion levels and psychological resilience levels.

H2: There is a positive relationship between conscientiousness levels and psychological resilience levels.

H3: There is a negative relationship between neuroticism levels and psychological resilience levels.

H4: There is a positive relationship between openness to new experiences levels and psychological resilience levels

H5: There is a positive relationship between agreeableness levels and psychological resilience levels.

H6: Big Five personality traits significantly predict psychological resilience.

2.METHOD

2.1. Participants

The sample of the study consists of 412 healthcare professionals. Four participants who have not signed the informed consent form to participate in the research removed from data set. There are 215 females (52.2%) and 197 (47.8%) males. Their ages are between 21-66 (*M*= 44.52, *SD*= 11.58). 317(76%) participants are married. 77 (18%) participants are single.19 (4%) participants are divorced and 2 participants are widowed. Considering the two participants participate in this study, widow group added to single participants. Considering the monthly income, 34 (8.3%) of the participants have an income between 0-3000 TL, 70 (17.0%) between 3001-6000 TL and 308 (74.8%) have an income of 6001 TL or more. While 262 (63.6%) of the participants work in the private sector, 150 (36.4%) of them work in the public. Participants are from different groups, namely, medical doctors, nurses, allied or non-medical health professionals, other hospital staff. There are 288 medical doctors (69.9%) and 81 nurses (19.7 %). The third group includes 32 allied health professionals (7.8%) including nutritionists, technicians, physiotherapists, biochemistry specialists, nuclear medicine specialist, medical genetics specialists. Finally, there are 11 other hospital staff (2.7 %) which consists of medical secretary, hospital secretary, hospital financier. According to the education level of the participants, 5 (1.2%) participants have graduated from high school, 130 (31.6 %) have bachelor's degree, 81 (19.7%) participants have master's degree and 196 (47.6%) participants have doctorate degree (see Table 1). Considering the monthly income, 34 (8.3%) of the participants have an income between 0-3000 TL, 70 (17.0%) between 3001-6000 TL and 308 (74.8%) have an income of 6001 TL or more. While

262 (63.6%) of the participants work in the private sector, 150 (36.4%) of them work in the public. 314 (76.2%) of the participants are married, 77 (18.7%) are single, 19 (4.6%) are divorced and 2 (0.5%) are widow (Table 1). While 262 participants (63.6%) work in private institutions, 150 (36.4 %) participants work in public institution.

Table 1

Participants

Baseline Characteristic		Doctor		Nurse		Non-Medical Health Professionals		Other hospital staff		Full Sample	
		n	%	n	%	n	%	n	%	n	%
Gender	Female	117	28.4	70	17.0	19	4.6	9	2.2	215	52.2
	Male	171	41.5	11	2.7	13	3.2	2	0.5	197	47.8
Age	21-30	25	6.0	36	8.7	10	2.4	6	1.4	77	18.6
	31-45	65	15.7	36	8.7	3	0.7	3	0.7	107	25.9
	46-60	191	46.3	9	2.1	18	4.3	2	0.4	220	53.3
	61+	7	1.6	0	0	1	0.2	0	0	8	1.9
Edu. Status	High School	0	0	2	0.5	0	0.2	3	0.7	5	1.2
	University	46	11.2	68	16.5	10	2.4	6	1.5	130	31.6
	Master's Deg.	64	15.5	11	2.7	5	1.2	1	0.2	81	19.7
	Doc. Degree	178	43.2	0	0	17	4.1	1	0.2	196	47.6
Income	0-3000	1	0.2	19	4.6	7	1.7	7	1.2	34	8.3
	3001-6000	8	1.9	54	13.1	5	1.2	3	0.7	70	17.0
	6001+	279	67.7	8	1.9	20	4.9	1	0.2	308	74.8
Work	Private	172	41.7	55	13.3	24	5.8	11	2.7	262	63.6
	Public	116	28.2	26	6.3	8	1.9	0	0	150	36.4
Marital status	Married	239	58.0	49	11.9	21	5.1	5	1.2	314	76.2
	Single	36	8.3	27	6.6	10	2.4	6	1.5	79	18.7
	Divorced	13	3.3	5	1.2	1	0.2	0	0	19	4.6

2.2 Procedure

Data has been collected from the healthcare professionals. An online survey has been constructed to collect data. All participants have filled this online form of survey. Firstly, participants have been asked whether they want to participate in the research project voluntarily. Participants, who have given consent for participation, have filled demographic information form. After sociodemographic information, questionnaires about big five personality traits and resilience have been given. No

identity information has been obtained during data collection process. At the end of questionnaires, participants have been thanked and informed about the study with a debriefing form.

2.3. Materials

Socio-Demographic Information Form:

This form has been constructed by researchers to gain descriptive information about participants. Participants have been asked questions about their age, gender, educational background, income level, marital status (see Appendix A).

Adjectives Based Personality Scale.

Adjective Based Personality Scale has been developed to assess personality with adjectives (Bacanli et al., 2009). It was based on the theory of Big Five Personality Theory (McCrae & Costa, 1991). It consists 40 items with opposite adjective pairs. It is a Likert-type personality test scored between 1-7. The participants are required to select the most appropriate one from adjective pairs for themselves. As a result of the factor analysis, a five-factor structure has been obtained, there are 7 items for neuroticism, 9 items for extraversion, 8 items for openness to experience, 9 items for agreeableness, and 7 items for conscientiousness. In this study, each factor, namely Neuroticism (Cronbach's alpha=.73), Extraversion (Cronbach's alpha=. 89), Openness to New Experience (the Cronbach's alpha= .80), Agreeableness

(Cronbach's alpha= .87), Conscientiousness (Cronbach's alpha= .88) has acceptable reliability at the end of reliability analysis (Appendix B).

Brief Resilience Scale.

Brief Resilience Scale is a 6-item self-report questionnaire (Smith et al., 2008). It was adapted to Turkish by Tayfun Dogan (2015). This scale is Likert scale scored between 1-5 "1= Strongly disagree" to "5= Strongly agree." In BRS, Item 2, item 4 and item 6 are reversed items with negative expressions. The lowest score that can be obtained from the Brief Resilience Scale is 6 and the highest score is 30. Reliability analysis indicates that Cronbach's alpha is 0.84 (Appendix C).

The scales' internal consistency have been analyzed for the study. It is represented in Table 2

Table 2

Reliability Statistics for Scales

Measures	*n* of items	Cronbach's α
Adjective Based Personality Scale	40	.81
Brief Resilience Scale	6	.84

2.4 Ethical Considerations of the Research

Ethical approval has been provided by Yeditepe University Ethical committee to conduct our study titled "The Relationship Between Big Five Personality Traits and Psychological Resilience of Healthcare Professionals". For confidentiality, no information about identity is required. At the beginning of the study, informed consent

form has been given. Besides, participation of the study is based on principle of voluntariness. They have been informed that they could withdraw from the research without specifying any reason.

3. RESULTS

Before starting to analyze big five personality traits and resilience variables, the data has been screened. Raw data has consisted of 417 participants. However, one of the participants has been excluded because of double filling the scales and four participants have been excluded as they have not accepted to enter to the study. Therefore, the study has been conducted with 412 participants. The outliers, the test of normality and linearity have been examined for the assumptions of statistical analysis. Our study has evaluated the attitude of our individuals and remained within the lower and upper limits of the scale, the values could be considered to be the deviating values which are found appropriate to be included in the analysis. Therefore, we have not taken out outliers from our study.

Table 3

Test of Normality Scales

	Kolmogorov-Smirnov[a]	
Measure	*D* (412)	*P*
Brief Resilience Scale	.069	<.001
ABPS Neuroticism	.059	<.001
ABPS Extraversion	.068	<.001
ABPS Conscientiousness	.106	<.001
ABPS Agreeableness	.079	<.001
ABPS Openness	.117	<.001

[a] Lilliefors Significance Correction

Test of Normality scores for BRS and ABPS are unlikely to come

from normal distribution in Table 3. Therefore, it has been decided to use Spearman rank order correlation, instead of Pearson product-moment correlation, for the correlation analysis and sociodemographic analysis.

3.1 Descriptive Statistics for The Study Variables

In this section, analysis has been conducted to present the descriptive data of variables. For this reason, Neuroticism, Extraversion, Openness to New Experience, Agreeableness, Conscientiousness in Adjective Based Personality Test, and Resilience Scores have been analyzed with regard to mean, median, standard deviation, range scores.

Table 4

Descriptive Statistics of the Measures

Measures	*N*	*M*	*Mdn*	*SD*	*Range*
BRS Total	412	20.79	21.00	5.18	24
ABPS Neuroticism	412	47.56	23.50	6.96	38
ABPS Extraversion	412	23.42	48.00	8.16	45
ABPS Conscientiousness	412	40.72	42.00	5.54	39
ABPS Agreeableness	412	52.67	53.00	6.76	47
ABPS Openness	412	42.96	44.00	5.89	40

Notes. BRS: Brief Resilience Scale, ABPS: Adjectives Based Personality Scale

3.1.1 Findings About Resilience and Sociodemographical Variables

In order to see the relationship between resilience scores and some descriptive variables, namely, occupational groups, gender, educational and marital status, income level and age, a series of analysis have been conducted. For variables with two categories, Mann Whitney U tests have been applied. The results for these variables, namely gender and working institution, can be seen in Table 5.

Table 5

Relationship between Resilience and Gender

		Resilience				
		N	Mean rank	Sum of rank	U	*P*
Gender	Female	215	183.62	39478.50	16258.500	<0.001*
	Male	197	231.47	45599.50		

Note. The mean difference is significant at the 0.05 level. Mann-Whitney U test * p<0.05 statistically significant.

For gender, it has been found that psychological resilience scores of male participants (*Mdn* = 22.00) are significantly higher than female participants (*Mdn* = 20.00), $U = 16258.5$, $z = -4{,}084$, $p < .001$, $r = .20$.

Table 6

Relationship between Resilience and Working institution

		Resilience				
		N	Mean rank	Sum of rank	U	*P*
Working Institution	Private	262	212.61	55705.00	18048.00	0.167
	Public	150	195.82	29373.00		

Note. The mean difference is significant at the 0.05 level. Mann-Whitney U test * p<0.05 statistically significant.

For working institution variable, psychological resilience scores in private institutions (*Mdn* = 21) are not significantly different from and public institutions (*Mdn* = 21), $U = 18048.00$, $z = -1.38$, $p = .167$.

For the variables with more than two categories, Kruskal Wallis H test has been conducted. The results for these variables such as occupational groups, educational and marital status, income level and age are shown in Table 7.

Table 7

Relationship Between Resilience and Other Descriptive Variables

		Resilience				
		N	Mean rank	Df	H	*P*
Occupational Groups	Medical Doctors	288	213,8	3	8.762	0.033
	Nurses	81	179,72			
	Allied	32	228,05			
	Other	11	149,82			
Age	21-30	77	188.93	3	5.200	0.158
	31-45	107	197.45			
	46-60	220	215.02			
	61+	8	262.25			
Education status	High School	5	212.50	3	9.891	0.020
	University	130	180.13			
	Master degree	81	226.78			
	Doc. Degree	196	215.45			
Income	0-3000	34	190.04	2	7.483	0.024
	3001-6000	70	174.63			
	6001+	308	215.56			
Marital status	Married	314	212.56	2	11.446	0.003*
	Single	79	170.43			
	Divorced	19	256.34			

Note. The mean difference is significant at the 0.05 level. Kruskal-Wallis H test Benferroni corrected level *p<0.0083 statistically significant

In order to see difference between professional groups, Kruskal Wallis H test indicates that resilience scores are not significantly different across occupational groups, $H(3) = 8.762$, $p = .033$, there is no difference between age and resilience

scores, $H(3) = 5.200$, $p = .153$, there is no difference between educational status scores and resilience scores, $H(3) = 9.891$, $p = .020$, there is no difference between income scores and resilience scores, $H(2) = 7.483$, $p = .024$.

In order to see difference between marital status groups, a statistically significant difference has been found between the participant's psychological resilience scores according to marital status $H(3) = 11.446$, $p = .003$. For marital status, two of the participants were widow, we added them to single participants group. In comparison of group, it has been found that participants who are divorced (*Mdn*= 23.00) have higher resilience level than the single participants (*Mdn*=18.00) , $U = 434.000$, $z = -2.858$, $p = .004$, $r = .13$. In addition to this, married participants (*Mdn*=21.00) have higher resilience level than the single participants (*Mdn*=18.00), $U = 9870.000$, $z = -2.814$, $p = .005$, $r = .14$.

3.2 Correlation Between Five Factor Personality Traits and Psychological Resilience

In the study, Spearman's correlation analysis has been performed to determine the relationship between five factor personality traits and psychological resilience. The results are shown in Table 8.

Table 8.

Correlation Between Five Factor Personality Traits and Psychological Resilience

Variable	1	2	3	4	5	6
1.Neuroticism	-					
2.Extraversion	-.316**	-				
3.Openness	-.268**	.729**	-			
4.Agreebleness	-.262**	.311**	.396**	-		
5.Conscientiousness	-.242**	.475**	.451**	.411**	-	
6.Resilience	-.495**	.332**	.285**	0.068	.173**	-

Note. The correlation results for all sample (n = 412) are shown. Benferroni corrected level *p<0.01 statistically significant

The findings indicate that there is a significant negative relationship between resilience and neuroticism (r_s (410)= -.495, p<.001) and also, resilience is significantly and positively correlated with extraversion (r_s(410)= .332, p<.001), openness to new experiences (r_s (410)=.285, p<.001), conscientiousness (r_s (410)= .173, p<.001). However, there is no significant association between agreeableness and resilience (r_s (410) =.068, p = .169).

3.3. Regression Analysis

The stepwise method has been applied in multiple regression analysis to determine the predictive variables, or traits, for resilience in healthcare professionals. Traits, which are significantly correlated with resilience, are included in this analysis. They are, neuroticism, extraversion, openness to experience, conscientiousness and gender. Table 9 shows the results of stepwise regression.

Table 9

Results of the Linear Regression Analysis for Neuroticism, Extraversion, Gender and Resilience

Dependent Variables	*B*	*SE B*	*Beta*	*t.*	*P*	*Adj.* R^2
(Constant)	22.432	1.742		12.875	<.001	
Neuroticism	-.331	.033	-.445	-10.147	<.001	.259
Extraversion	.129	.028	.203	4.626	<.001	.294
Gender	-1.004	.440	-.097	-2.281	<.01	.301

As Table 9 indicates that only neuroticism and extraversion are included to the model in stepwise regression. This model accounts for 31 % of variance of resilience in healthcare professionals.

The neuroticism is explained 26 % of resilience scores in the first step, F (1, 410) =144.614, p<.001. As another predictor, extraversion, has been added to model in the second step. Neuroticism is responsible for a huge proportion of variance in psychological resilience but extraversion added only 3.7% of the variance, F (1, 409) =86.605, p< .001. As another predictor, gender, has been added to model in the third step. Gender added only 1% of the variance, F (1, 408) = 60.063, p<.01. Standardized and unstandardized coefficient values of predictive traits are represented in Table 9. In this table, resilience scores decrease by -.331 when one unit of neuroticism increases and resilience scores increase by .129 when one unit of extraversion increases, resilience scores decrease by -1.004 when one unit of gender increases. When standardized coefficient is considered, neuroticism has higher value than extraversion

and gender to predict psychological resilience. It could be stated that neuroticism is the strongest predictive trait for resilience score in health professionals.

4.DISCUSSION

In this study, in order to examine the relationship between psychological resilience and the five factor personality traits, healthcare professions have been aimed.

4.1 Results of the study

The results of this study would be discussed in light of the literature. In this chapter, the differences between socio-demographic variables in terms of the study variables have been discussed.

4.1.1 Differences between socio-demographic variables in terms of Resilience and Big Five Personality Traits

Relevant literature has been reviewed for professions to identify resilience enhancing qualities of each profession. There are studies conducted for healthcare professionals which include doctors (McKinley et al., 2019), nurses (Çam & Büyükbayram, 2017), medical students (Yiğitbaş et al., 2018) and paramedics (Bazrafshan et al., 2019). These studies only cover some groups of professionals. However, healthcare professionals include also medical technicians, dietitians, paramedics, administrative personnel and psychologists (Gazate, 2014). In literature, there is a gap in the studies that they do not include all of the healthcare professionals. We have included all the medical technicians, dieticians, administrative personnel and paramedics which is unique in our study.

In this study, healthcare professionals are divided into four groups namely, doctors, nurses, allied or non-medical healthcare professionals, other hospital staff. In

order to see whether there is a difference between resilience scores of each group or not, they have been compared. Our results indicate that psychological resilience levels are not different according to occupational groups. This could be explained by some factors. First of all, this could be related to uneven number of participants in the groups. The difference between groups is high. Another explanation could be related to timing of the study. This study was conducted during COVID-19 pandemic. The healthcare professionals were one of the most risky groups at that time. In traditional working conditions, doctors had high risk for infection and death (Yıldız et al., 2003). Today, each group faced with high infection and death risk. Pandemic situations may have affected each group in a similar way. This can be an explanation for why all healthcare professionals had the same resilience scores.

Furthermore, the results indicate that psychological resilience differs with regard to gender. Gender is also found as a predictor of psychological resilience. Men's resilience scores are higher than women's resilience scores. This is consistent with some studies about resilience of different groups such as nurses, nursing students (Bonanno et al., 2007; Tabakakis et al., 2019 ; Yiğitbaş et al., 2018). In the health field, the gender discrimination has been observed in specific professions. The higher status and paying much are common in men as it is seen medical sector while the female labors have been defined as less status and less paid like nursing (Adams, 2010). This situation can create more pressure for women in the health field which could result in less resilience levels.

In our study, psychological resilience levels of the participants did not differ according to the age groups. This result is consistent with the study with the nursing students (Yiğitbaş et al., 2018) and individuals between ages 20-60 after the coronavirus epidemic (Tönbül, 2020). It was found that the psychological resilience

scores of the participants over the range of 18-25 did not change according to the age groups (Göngörmüş et al., 2015). Here, age could be an incompetent concept to understand resilience. Experience rather than age, could be an important factor (Glillespie et al., 2009). The quantity and quality of stressful day and how healthcare workers deal with it could be more related to our results. The stressful day life of health professionals could probably affect our results.

In our study, it was found that psychological resilience levels of the participants did not differ according to the education level. In contrast to our results, a study reveals that higher education level is associated with resilience (Ang et al., 2018). We did not find any difference regarding to education levels. This can be explained by unequal distribution of the groups in numbers and also most of the participants were over Phd degree.

In our study, it is supported that psychological resilience levels of the participants did not differ according to their income level. This is consistent with some studies which has revealed that there is no difference between the resilience scores and income status (Aşkın, 2019; Wagnild, 2003). Despite these findings, this may suggest that the person's resilience scores increase along with the increase in the financial sources (Gizir, 2007). We did not find a difference in terms of income level; we can explain this with the perception of income. The important thing is how the individual perceives the socioeconomic status rather than income amount. Because if the person describes his/her status as an unbearable situation, the psychological distress he or she experiences will be a lot, but if they perceive their status as satisfactory, they will suffer less psychological distress by adapting to it or using effective coping methods (Vyas & Dillahunt, 2017). In this study, the fact that

psychological resilience did not differ according to socio-economic status may be due to this situation.

In our study, the psychological resilience scores of the participant were different in groups according to participant's marital status. Psychological resilience levels of married individuals indicate to be higher than those of single ones. Marriage can be a protective factor for couples who have support networking, intimacy and social supports (Ang et al., 2018; Wade et al., 2013; Yörük & Güler, 2021). Participants who are divorced in the study indicate to have higher resilience levels than those who are single. If the relationship with the partner is negative, it is called as a risk factor (Scali et al. 2012). The stress experienced in marriage and coping with that stress may have increased psychological resilience of the participants. This may the explanation of this result. Despite these findings, some studies have revealed that no statistically significant difference has been found between the psychological resilience scale scores of married and single people (Aşkın 2019; Şenol & Üzüm, 2019). Regarding to our study, being married helps individuals and provides the support to deal with stressful events**.**

4.1.2 Predictors of Resilience

In our study, the analysis has been performed to determine the relationship between five factor personality traits and psychological resilience. The results of the research indicated that resilience is positively associated with conscientiousness, openness to experience, extraversion and negatively with neuroticism. However, no significant relationship between agreeableness and resilience has been detected.

In addition, multiple regression indicates that the variables of neuroticism, extraversion are significant predictors of psychological resilience. While the direction

of the regression relationship between extraversion and psychological resilience is positive, the direction of regression relationship between neuroticism and psychological resilience is negative.

Negative and significant relationship is found between neuroticism scores and resilience scores. People who are high on neuroticism are not very good at controlling their emotions in coping with stress (Larsen et al., 2010). This may have caused the resilience scores to be low. In resilience, of course, emotion control is an important point (Cameron & Brownie, 2010; Margaret & Lowe, 2011; Öz, 2009). Since these people do not have the mechanism to cope well with anxiety and negative emotions in the face of stress, they may show a weak structure in terms of resilience (Tarverdizadeh et al., 2017).

In contrast, there is positive correlation between extraversion scores and resilience scores. People who are high on extraversion are good at enjoying interacting with people and action-oriented people. These personality qualities contribute people to cope and manage stress. Therefore, extraversion could predict resilience (Bazrafshan, et al., 2019; Oshio et al., 2018)). It seems that these people have no fear of approaching other people. For resilience, as they can show the ability to communicate with other people in the face of stress, they can become stronger by being more protected from the negative effects of stress (Sarubin et al., 2015). The social environment can always affect people in a positive way. Sharing with others provides to access physical resources, solutions and emotional resources. They may seek help from other or support from others.

In addition, there is a positive correlation between openness to new experiences scores and resilience scores. People with high-score are open to the experience of both the inner and the outside world, and their lives are rich in

experience; they are diversified (Bazrafshan et al., 2019). This may have be related to resilience in this way. These people have easier access to new resources and have a wider view of the world, so they have better coping strategies with stress (Penley et al., 2002). Every new thing includes, challenges in learning process. While these people learn to cope with these difficulties, they gain experience to deal with stress too.

In addition, there is a positive correlation between conscientiousness scores and resilience scores. People who have high score of conscientiousness are highly responsible individuals and they have strong self-efficacy and are more likely to adopt an active problem-solving approach to overcome stress (Tarverdizadeh et al, 2018). High-responsibility people are also having strong self-efficacy and are more likely to adopt an active problem-solving so they are better coping with stress (Bartley, et al., 2011; Penley et al., 2002).

In contrast, in this study there is no correlation between agreeableness scores and resilience scores. In contrast to our study, findings show that individuals with high levels of agreeableness have high psychological resilience (Çetin et al., 2015 ; Oshio et al., 2018). Agreeable individuals are compassionate, helpful. People who are high on agreeable experience less conflict in their relationships and receive more social support. The individuals receiving more support are expected to be more resilient. However, people who are high on agreeableness may struggle to assert their wants, thoughts. They could avoid stress, conflicts and this may reduce their resilience scores. In context of our study, agreeableness is found irrelevant trait in healthcare field. Because other traits could be more effective than being with harmony with other because they try to save lifes or protect physical health of other.

In sum, big five personality traits are related to resilience. When the

relationship between psychological resilience and personality traits is examined in general, similar results have been obtained with the literature. It has revealed that personality has an important variance in explaining psychological resilience (Çetin et al., 2015; Tarverdizadeh et al, 2018).

4.2 Limitations of the Study and Recommendation for Further Studies

The application of the research only to the healthcare workers constitutes one of the limitations of the participants included in the study are doctors, and the number of participants in the other groups constitute a small proportion of the sample size. It is also appeared that the reality of non-homogeneous distribution in the number of occupational groups within the sample structure could affect the results of the research.

Another limitation of the study is the uneven number of the participants in the groups. This study is limited only to Istanbul city. Including wider population, different cities can be added in this study. For this reason, the representativeness of the study is low. For the sociodemographic part, there are many other factors related to resilience, such as hardiness (Maddi, 2005), self-efficiency (Schwarzer & Warner, 2013 ; Taylor & Reyes, 2012), marital satisfaction (Bradley & Hojjat, 2017), marital social support (Sippel et al., 2015). This study is only focused on the limited sociodemographic features.

4.3 Implications

The findings, which have been obtained, are used to understand the personality traits of the healthcare professionals who are resilient. The field of health is one of the

fields that have to cope with stress. The study may have implications for clinicians working in hospitals and also working with healthcare professionals. In another study, a negative relationship has been observed between psychological symptoms and psychological resilience in healthcare workers including medical doctors, nurses, administrative staff, patient services counselor, cleaning staff and other staff (Cevizci & Müezzin, 2019). Considering the effects of personality traits on the psychological resilience in the field of health, training programs can be organized to increase the resilience levels. Training programs are including as follows; 1) introducing the resilience and how to strengthen resilience levels 2) peer-vision sessions about the cases which also increase the workforce of the healthcare professionals 3) introducing how to cope with anxiety and stress related to neuroticism levels 4) introducing how to increase social communication skills for extraversion levels. Besides this training, a second implication can be interpreted in context of psychotherapy process. If healthcare professionals come to a therapy, this information helps to understand the patient. Therefore, it is not surprising that resilience in health professional programs is identified as an expected training outcome (Stephens, 2013). Resilience enhancing factors play an important role in helping individuals to recover when they have faced with difficulties. To describe these factors in terms of psychological resilience are essential. Developing resilience-promoting environments helps to reduce negative, and to increase positive, outcomes of stress in health professionals.

4.4 Conclusion

The results of the research shows that there is a relationship between resilience and personality traits which are neuroticism, extraversion, openness to new experiences

and conscientiousness. However, there is no relationship between agreeableness and resilience. It has been proven that resilience is related to gender and marital status. It is thought that the results of the research will contribute to studies on personality traits and psychological resilience, especially in healthcare field. Moreover, the present research has revealed results that can be used in training, support, and rehabilitation practices to be applied to healthcare professionals.

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Appendix A: Informed Consent Form

Bilgilendirilmiş Onam Formu

Sayın katılımcı;

Sizi T.C. Yeditepe Üniversitesi klinik psikoloji yüksek lisans öğrencisi olan Tilbe SÖZÜBİR tarafından, Dr. Öğr. Üyesi Seray AKÇA'nın danışmanlığında yürütülen yüksek lisans tezi kapsamında yapılan araştırmaya davet ediyoruz.

Bu çalışmada katılımcı olarak hastanelerde çalışan sağlık profesyonellerine ihtiyaç duyulmaktadır. Bu amaçla sizden anket doldurmanız istenecektir. Çalışma yaklaşık 10 dakikanızı alacaktır.

Sizden edinilen bilgiler tamamen gizli tutulacaktır ve kimliğinizle ilgili hiçbir bilgi talep edilmeyecektir. Soruların hiçbiri mahremiyetinize ve size zarar verici nitelikte değildir. Sizlerden elde edilen bilgiler bireysel değil, grup olarak değerlendirilecektir. Soruların doğru ve yanlış cevapları yoktur. Bu yüzden, lütfen soruları içtenlikle cevaplayınız.

Eğer bu araştırmaya gönüllü olarak katılmak istiyorsanız, lütfen formun aşağısındaki ilgili kısımda "katılmak istiyorum" tıklayınız. Değerli katkılarınızdan dolayı şimdiden çok teşekkür ediyoruz.

Yukarıda sözü geçen araştırma projesinin detaylarını okudum ve bu proje ile ilgili sorularım cevaplandı. Bu çalışmaya gönüllü olarak

Katılmak istiyorum

Appendix B: Sociodemographic Form

1. Cinsiyetiniz:

2. Yaşınız: _____

3. Eğitim durumunuz: :

( ) Lise ( ) Üniversite ( ) Yüksek Lisans ( ) Doktora ve üstü

4. Mesleğiniz:

( ) Doktor ( ) Hemşire ( ) Diğer

5. Branşınız

6. Gelir Düzeyiniz:

( ) 0-3000 ( ) 3001-6000 ( ) 6001 +

7. Çalıştığınız Kurum:

( ) Kamu ( ) Özel

8. Medeni durumunuz:

( ) Evli ( ) Boşanmış ( ) Eşini kaybetmiş ( ) Bekar

Appendix C: Adjectives based personality scale

Aşağıda sizleri tanımak için kullanılan sıfat çiftleri verilmektedir. Sizden istenen, her bir sıfat çiftini okuyarak size uygunluk derecesine karar vermenizdir. Her sıfat çifti için bir tek daireyi doldurunuz. Doğru cevap yoktur, size uygun cevap vardır. Bunu dikkate alarak cevaplamaya çalışınız.

Sıfatlara Dayalı Kişilik Testi

		Çok uygun	**Oldukça uygun**	**Biraz uygun**	**Ne uygun, ne uygun değil**	**Biraz uygun**	**Oldukça uygun**	**Çok uygun**	
1	Sakin	○	○	○	○	○	○	○	Sinirli
2	Yalnızlığı tercih eden	○	○	○	○	○	○	○	Sosyal (topluluğu seven)
3	Sanata ilgisiz	○	○	○	○	○	○	○	Sanata ilgili
4	Kindar	○	○	○	○	○	○	○	Affedici
5	Düzensiz	○	○	○	○	○	○	○	Düzenli
6	Sabırlı	○	○	○	○	○	○	○	Sabırsız
7	Silik	○	○	○	○	○	○	○	Atak
8	Hayal gücü zayıf	○	○	○	○	○	○	○	Hayal gücü kuvvetli
9	(Başkalarına kayıtsız	○	○	○	○	○	○	○	Yardımsever
10	Sorumsuz	○	○	○	○	○	○	○	Sorumluluk sahibi
11	Rahat	○	○	○	○	○	○	○	Tedirgin
12	Uyuşuk, eliağır	○	○	○	○	○	○	○	Canlı
13	Dargörüşlü	○	○	○	○	○	○	○	Geniş görüşlü
14	Rekabetçi	○	○	○	○	○	○	○	İşbirliği yapan
15	Hırslı değil	○	○	○	○	○	○	○	Hırslı
16	Tutarlı	○	○	○	○	○	○	○	Tutarsız
17	Durgun	○	○	○	○	○	○	○	Delidolu
18	Alışılmış	○	○	○	○	○	○	○	Yenilikçi
19	Kibirli	○	○	○	○	○	○	○	Alçakgönüllü
20	Dikkatsiz	○	○	○	○	○	○	○	Dikkatli
21	İyimser	○	○	○	○	○	○	○	Karamsar
22	Neşesiz	○	○	○	○	○	○	○	Neşeli
23	Meraksız	○	○	○	○	○	○	○	Meraklı
24	Asi	○	○	○	○	○	○	○	Uysal, yumuşak başlı
25	Gayretsiz	○	○	○	○	○	○	○	Gayretli
26	Huzurlu	○	○	○	○	○	○	○	Huzursuz
27	Arka planda kalan	○	○	○	○	○	○	○	Öne çıkan
28	Tutucu	○	○	○	○	○	○	○	Liberal

29	Acımasız	○	○	○	○	○	○	○	Merhametli
30	Hazırlıksız	○	○	○	○	○	○	○	Hazırlıklı
31	Kaygısız	○	○	○	○	○	○	○	Kaygılı
32	Dikkat çekmeyen	○	○	○	○	○	○	○	Baskın, belirgin
33	İlgileri dar	○	○	○	○	○	○	○	İlgileri geniş
34	Bencil	○	○	○	○	○	○	○	Fedakâr (diğergam)
35	Disiplinsiz	○	○	○	○	○	○	○	Disiplinli
36	Yeni ilişkilere kapalı	○	○	○	○	○	○	○	Yeni ilişkilere açık
37	Etkisiz	○	○	○	○	○	○	○	Etkili
38	Hoşgörüsüz	○	○	○	○	○	○	○	Hoşgörülü
39	Donuk	○	○	○	○	○	○	○	Coşkulu
40	İnatçı	○	○	○	○	○	○	○	Uzlaşmacı

Appendix D: Short psychological resilience scale

Aşağıda bulunan ölçeği kullanarak her ifadenin sizin için ne kadar uygun olup olmadığını belirtmek için ifadelerden bir tanesini işaretleyiniz.

	Hiç uygun Değil	**Uygun değil**	**Biraz uygun**	**Uygun**	**Tamamen uygun**
1. Sıkıntılı zamanlardan sonra kendimi çabucak toparlayabilirim.	**1**	**2**	**3**	**4**	**5**
2. Stresli olayların üstesinden gelmekte güçlük çekerim.	**1**	**2**	**3**	**4**	**5**
3. Stresli durumlardan sonra kendime gelmem uzun zaman almaz.	**1**	**2**	**3**	**4**	**5**
4. Kötü bir şeyler olduğunda bunu atlatmak benim için zordur.	**1**	**2**	**3**	**4**	**5**
5. Zor zamanları çok az sıkıntıyla atlatırım.	**1**	**2**	**3**	**4**	**5**
6. Hayatımdaki olumsuzlukların etkisinden kurtulmam uzun zaman alır.	**1**	**2**	**3**	**4**	**5**

Appendix E: Debriefing Form

Katılım Sonrası Bilgilendirme Formu

Bu araştırma ilk sayfada belirtildiği gibi Yeditepe Üniversitesi Klinik Psikoloji Bölümü Yüksek Lisans öğrencisi Tilbe Sözübir tarafından Dr. Öğr. Üyesi Seray Akça danışmanlığındaki yüksek lisans tezi kapsamında yürütülmektedir. Bu tez çalışmasında sağlık çalışanlarının kişilik özellikleri ve psikolojik sağlamlıkları arasındaki ilişkinin incelenmesi amaçlanmaktadır. Sağlık personelinin katılımı ile yürütülen bu çalışmada iki adet anket kullanılmıştır. Sağlık çalışanlarının kişilik özellikleri ile psikolojik sağlamlık arasında yapılan çalışmaların çok fazla olmaması göz önünde bulundurulduğunda bu çalışmanın literatür için yenilikçi bir çalışma olucağı düşünülmüştür.

Elde edilen bilgiler sadece bilimsel araştırma ve yazılarda kullanılacaktır. Çalışmanın sağlıklı
ilerleyebilmesi ve bulguların güvenilir olması için çalışmaya katılacağını bildiğiniz diğer
kişilerle çalışma ile ilgili detaylı bilgi paylaşımında bulunmamanızı dileriz. Bu araştırmaya
katıldığınız için tekrar çok teşekkür ederiz.