

**MEDIATOR ROLES OF RESILIENCE ON THE LINK BETWEEN
MINDFUL SELF-CARE AND PSYCHOLOGICAL WELL-BEING**



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**MEDIATOR ROLES OF RESILIENCE ON THE LINK BETWEEN
MINDFUL SELF-CARE AND PSYCHOLOGICAL WELL-BEING**

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and ethical conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

MEDIATOR ROLES OF RESILIENCE ON THE LINK BETWEEN MINDFUL SELF-CARE AND PSYCHOLOGICAL WELL-BEING

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Coronavirus pandemic has adversely affected people's health. In this study, mindful self-care, resilience, psychological well-being, and COVID-19 anxiety were discussed. Mindful self-care has an up-to-date approach to self-care through the concepts of physical care, supportive relationships, mindful awareness, self-compassion and purpose, mindful relaxation, and supportive structure. Resilience is an important variable in coping with stress with its meaning of recovery. According to the literature, mindful self-care and resilience have a positive effect on psychological well-being. However, studies on mindful self-care are limited. Relationship between these notions were examined with regression, mediation, reverse mediation, and moderated mediation analyses. 217 adults living in Turkey with a mean age of 27.42 ($SD = 9.17$) participated in this research. Data was collected through demographic questionnaire, Mindful Self-Care Scale, Brief Resilience Scale, and PERMA-Profiler. As a result, mindful self-care predicted resilience and psychological well-being. Also, resilience predicted psychological well-being. Although resilience mediated the relationship between mindful self-care and psychological well-being when controlling gender and age, the assumption that resilience had a mediating role on the link was not fully confirmed since reverse mediation analysis was significant. There was no moderator role of COVID-19 anxiety on the relationship between mindful self-care-resilience and mindful self-care-psychological well-being. The moderator role of the level of COVID-19 anxiety on the link between resilience and psychological well-

being has emerged only in people with moderate and high levels of COVID-19 anxiety. Therefore, it is recommended to conduct prevention and intervention studies and develop various programs to maintain well-being.

Key Words: Mindful Self-Care, Resilience, Psychological Well-Being, COVID-19, Anxiety



ÖZ

BİLİNÇLİ ÖZ-BAKIM VE PSİKOLOJİK İYİ OLUŞ ARASINDAKİ İLİŞKİDE PSİKOLOJİK SAĞLAMLIĞIN ARACI ROLLERİ

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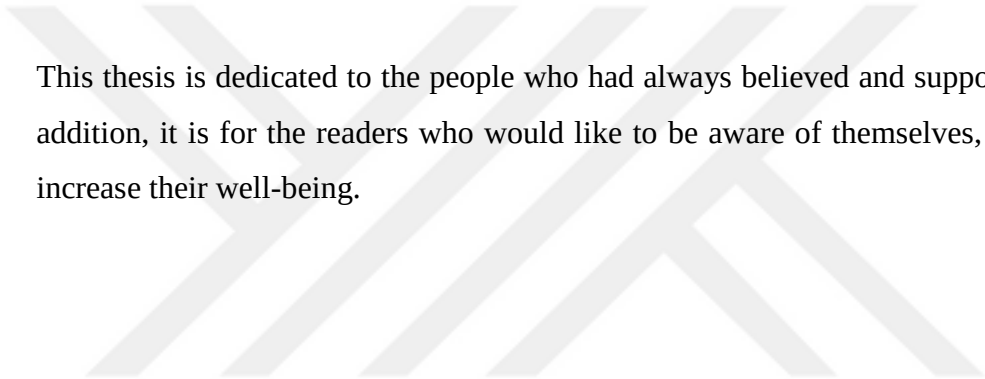
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Koronavirüs pandemisi insanların sağlığını pek çok açıdan olumsuz etkilemiştir. Bu çalışmada bilinçli öz-bakım, psikolojik sağlamlık, psikolojik iyi oluş ve COVID-19 kaygısı ele alınmıştır. Bilinçli öz-bakım; fiziksel bakım, destekleyici ilişkiler, bilinçli farkındalık, öz-duyarlık ve amaç, bilinçli farkındalığa dayalı rahatlama ve destekleyici yapı kavramları üzerinden öz-bakıma güncel bir yaklaşım getirmiştir. Psikolojik sağlamlık ise kendini toparlama ve yeniden iyileşme anlamlarıyla stresle baş etmede önemli bir değişkendir. Literatüre göre bilinçli öz-bakım ve psikolojik sağlamlığın psikolojik iyi oluş üzerinde olumlu etkisi vardır. Buna rağmen, bilinçli öz-bakım üzerine yapılmış çalışmalar kısıtlıdır. Bu kavramlar arasındaki ilişkiler regresyon, aracılık, ters aracılık ve durumsal aracılık analizleri ile incelenmiştir. Bu araştırmaya Türkiye’de yaşayan ve yaş ortalaması 27.42 ($SS = 9.17$) olan 217 yetişkin katılmıştır. Araştırma verileri demografik bilgi formu, Bilinçli Öz-Bakım Ölçeği, Kısa Psikolojik Sağlamlık Ölçeği ve PERMA Ölçeği üzerinden toplanmıştır. Sonuç olarak, bilinçli öz-bakım psikolojik sağlamlık ve psikolojik iyi oluşu yordamıştır. Psikolojik sağlamlık da psikolojik iyi oluşu yordamıştır. Cinsiyet ve yaş etkisi kontrol edilirken bilinçli öz-bakım ve psikolojik iyi oluş arasındaki ilişkide psikolojik sağlamlığın aracı rolü olsa da, ters aracılık analizi de anlamlı çıktığından, psikolojik sağlamlığın belirtilen ilişkide aracı rolü olduğu varsayımı tam olarak doğrulanmamıştır. COVID-19 kaygısının bilinçli öz-bakım ve psikolojik sağlamlık ile bilinçli öz-bakım ve psikolojik iyi oluş

ilişkisinde moderatör rolü bulunmamıştır. COVID-19 kaygısının psikolojik sağlamlık ve psikolojik iyi oluş bağlantısındaki moderatör rolü sadece COVID-19 kaygısı orta ve yüksek düzeyde olan insanlarda ortaya çıkmıştır. Bunlardan hareketle, iyilik halini sürdürmek için önlem and müdahale çalışmaları yapılması ve çeşitli programlar geliştirilmesi önerilmektedir.

Anahtar Kelimeler: Bilinçli Öz-Bakım, Psikolojik Sağlamlık, Psikolojik İyi Oluş, COVID-19, Kaygı





This thesis is dedicated to the people who had always believed and supported me. In addition, it is for the readers who would like to be aware of themselves, and aim to increase their well-being.

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LIST OF SYMBOLS/ABBREVIATIONS

α	Alpha
AAMS	Adolescent and Adult Mindfulness Scale
ADSCS	Adolescent Dysmenorrhic Self-Care Scale
APA	American Psychological Association
APRS	Adolescent Psychological Resilience Scale
ARMS	Attuned Representational Models of Self
ARS	Adolescent Resilience Scale
ASD	Autism Spectrum Disorders
AQoL	Assessment of Quality of Life
B	Unstandardized Beta
β	Beta Coefficient
BRCS	Brief Resilient Coping Scale
BRS	Brief Resilience Scale
CAS	Coronavirus Anxiety Scale
CASP-19	Quality of Life Scale
CAMS-R	Cognitive and Affective Mindfulness Scale-Revised
CD-RISC	Connor and Davidson Resilience Scale
CFI	Comparative Fit Index
CFA	Confirmatory Factor Analysis
CI	Confidence Interval
CIDS	Confidence in Diabetes Self-Care
CORPD	COVID-19 Related Psychological Distress Scale

COVID-19	Coronavirus Disease of 2019
CYRM-28	Child and Youth Resilience Measure-28
DASS	Depression Anxiety Stress Scales
ΔR^2	R-square change
df	Degrees of Freedom
ed.	Edition
EFA	Exploratory Factor Analysis
EPOCH	Engagement, Perseverance, Optimism, Connectedness, Happiness
ESCA	Exercise of Self-Care Agency Scale
F	F-statistic
FFMQ	Five Facet Mindfulness Questionnaire
FMI	Freiburg Mindfulness Inventory
GHQ-12	12 Item General Health Questionnaire
KIMS	Kentucky Inventory of Mindfulness Skills
L	Lower
M	Mean
MAAS	Mindful Attention Awareness Scale
Max.	Maximum
MBSR	Mindfulness-Based Stress Reduction
Min.	Minimum
MOM	Mindfulness-Oriented Meditation
MSC	Mindful Self-Care
MSCC	Mindful Self-Care for Caregivers
MSCR	Mindful Self-Care and Resiliency

MSCS	Mindful Self-Care Scale
N	Sample Size
OSF	Open Science Framework
<i>p</i>	Probability
PANAS	Positive and Negative Affect Schedule
PCA	Principal Component Analysis
PERIK	Resilience Scale for Preschool Children
PERMA	Positive Emotion, Engagement, Relationships, Meaning, Accomplishment
PhD.	Doctor of Philosophy
PHLMS	Philadelphia Mindfulness Scale
PMH	Positive Mental Health
ProQoL	Professional quality of life
PWB	Psychological Well-Being
<i>r</i>	Pearson Correlation
R^2	R-square
RASP	Resiliency Attitude and Skills Profile
RMSEA	Root Mean Square Error of Approximation
RS	Resilience Scale
RSA	Resilience Scale for Adults
RYSA	Resilience Scale for Young Adults
SCAT	Self-Care Assessment Tool
SD	Standard Deviation
SE	Standard Error
SES	Socioeconomic Status

SF-36	Short-Form 36 Health Status Questionnaire
SGWB	Scales of General Well-Being
SMQ	Southampton Mindfulness Questionnaire
SPSS	Statistical Package for the Social Sciences
SRMR	Standardized Root Mean Square Residual
SUPPH	Strategies Used by People to Promote Health
t	t-statistic
TLI	Tucker-Lewis Index
TMS	Toronto Mindfulness Scale
TSWQ	Teacher Subjective Well-Being Questionnaire
U	Upper
VIF	Variance Inflation Factor
WEIRD	Western, Educated, Industrialized, Rich, Democratic
WEMWBS	Warwick-Edinburgh Mental Well-Being Scale
WHO	World Health Organization
χ^2	Chi-Square
χ^2/df	Chi-Square /Degrees of Freedom

Chapter 1

Introduction

Introduction part of this research comprises the statement of the problem, purpose of this study, main hypotheses, significance of this study, and the definitions of the concepts in this order.

1.1 Statement of the Problem

It is known that the whole world has been fighting with the coronavirus disease of 2019 (COVID-19) since 2019. This virus came up with higher rates of illness and death, created important changes and challenges in everyone's life, and its spread reached uncontrollable proportions and this caused lockdowns worldwide. In addition to the changes in economic, politic, social, and business life that emerged with this virus, it can be said that it also created many negative effects in human life in psychosocial terms. To give an example, the pandemic has negatively affected people's social life, and people had to deal with all kinds of issues on their own. Therefore, it is inevitable to claim that there are visible changes in people's lifestyles and habits. For these reasons, many studies have emerged in the COVID-19 period that dealt with the consequences of the pandemic process at the social and individual level.

For instance, researchers mentioned about the risk factors such as being a young adult, being exposed to news about the virus in the media, having a chronic and/or psychiatric illness and protective factors like resilience among several populations including healthcare professionals in pandemic period (Bozdağ & Ergün, 2020; Petzold, Bendau, Plag, Pyrkosch, Mascarell Maricic, Betzler, Rogoll & Ströhle, 2020; Xiong, Lipsitz, Nasri, Lui, Gill, Phan, Chen-Li, Iacobucci, Ho, Majeed & McIntyre, 2020). In general, people were faced with loss of loved ones, experienced social isolation, had to immediately adapt to use online platforms for communicating, studying or working, having financial problems, health issues, and many others (Üstün & Özçiftçi, 2020; Gülerce, Nimehcisalem, Bozkurt, Dawes & Rafik-Galea, 2021).

Within these conditions, it has been observed that people encounter psychological disorders as well as physiological problems. According to the studies, the level of psychological well-being decreased, higher levels of psychiatric symptoms were frequently reported such as depression, anxiety, posttraumatic stress disorder,

and stress symptoms, and these symptoms got worse among people already having these problems all around the world during COVID-19 (Xiong et al., 2020; Videgaard & Benros, 2020). As stated by Bilge and Bilge (2020), there was an increase in the psychological symptoms of Turkish young adults with the appearance of coronavirus period compared to the scores for the symptoms before this period. However, these experiences may vary from individual to individual or from society to society. In a study of Akkaya-Kalayci, Kothgassner, Wenzel, Goreis, Chen, Ceri, and Özlü-Erkilic (2020), native Turkish individuals aged 15-25 had higher levels anxiety and depression with lower levels of vitality, general health, and self-control compared to Austrians or Austrian immigrants in this period. At this point, it appears to be crucial to explore how people experience this process and adapt to it as well as under which conditions they are more resilient and have better mental health especially among Turkish sample.

Nowadays, in addition to treating diseases, it has gained importance to carry out studies and programs to protect and maintain the health of individuals, and to prevent diseases before they appear (Dorociak, Rupert, Bryant & Zahniser, 2017). Considering the difficulties experienced by the health system during this pandemic period, it is inevitable to say how focusing on prevention is critical. Therefore, researchers and practitioners may have to pay attention to the concept of self-care in order to help people to protect their mental and physical health, maintain their well-being, and be resilient to all these stress factors. In fact, there is a general trend towards self-care in the world, but this is starting to become more salient and important in the pandemic (Chatzidakis, Hakim, Littler, Rottenberg & Segal, 2020). Focusing on individual experiences, recognizing and accepting both physiological and psychological needs have begun to attract more attention since all these were believed to promote the well-being of people. However, it should be noted that there are different viewpoints on the concept of self-care.

In the traditional perspective, self-care behaviors include daily living activities such as taking a shower as well as the behaviors of doing necessary exercises among people with chronic and/or physical diseases such as diabetes (Riegel, Jaarsma & Strömberg, 2012; Archer, 2020). Similarly, these kind of self-care behaviors were analyzed among people with psychological disorders such as schizophrenia, depression, and anxiety (Holmberg & Kane, 1999; Simco, McCusker & Sewitch, 2014). In this context, it appeared that self-care was oftenly used in the medical literature, included physical activities mostly, and did not highlight the behaviors of

healthy people, yet no traditional self-care research focused mainly on self-care behaviors among healthy individuals. On the other hand, Cook-Cottone and Guyker (2018) discussed the concept of mindful self-care by focusing on the concepts of mindful awareness, mindful relaxation, self-compassion and purpose, supportive relationships, supportive structure, and mindful awareness in addition to the behaviors mentioned above. Therefore, internal and external experiences were also included in the novel understanding of self-care, and this notion can be applied to those who do not have any chronic and psychiatric disorder, and who engage in yoga or meditation or not.

Although self-care is a concept that concerns everyone, it was surprising that it was mostly used in the medical literature. This situation showed that there is a need to examine this concept in the field of psychology, and to deal with it from a new perspective. To the best of our knowledge, it was seen that there were not enough studies about mindful self-care in the literature. In the later stages of this research, it was observed that the amount of studies of mindful self-care is increasing worldwide during COVID-19 pandemic although it is not sufficient to reach clearer conclusions. For example, a mindful self-care intervention was planned for healthcare professionals in this period (Foale, Lombard & Heyns, 2021). Despite all these, there has not yet been a study examining mindful self-care behaviors of the general population, especially within Turkish sample during pandemic period. In addition, the researchers who developed Mindful Self-Care Scale (MSCS), and adapted it with a Turkish sample emphasized the importance of evaluating mindful self-care in samples with different variables, and various demographic characteristics (Sunbul, Malkoc, Gordesli, R. Arslan & Cekici, 2018a; Cook-Cottone & Guyker, 2018). At the same time, Sunbul, Malkoc, Gordesli, Arslan, and Cekici (2018b) expressed their doubts about generalization of the data of students from a single university to the general population in their other study on mindful self-care dimensions and well-being in Turkey. On that account, there is no additional study examining the concept of mindful self-care in Turkey except these two studies conducted before COVID-19 pandemic. Therefore, it is critical to examine mindful self-care behaviors of people especially by considering different socio-demographic variables during COVID-19 pandemic.

From another perspective, the notion of resilience draws attention when its influence on health and well-being is taken into account especially in today's conditions. It is clear that individuals with high resilience should be able to cope with

stress better, adapt to change more easily, and maintain his/her functionality. Not surprisingly, it is one of the concepts that is handled in different ways in the literature, and can be measured with several tools. According to a meta-analysis conducted by Oshio, Taku, Hirano, and Saeed (2018), resilience was classified as ego-resiliency and/or as a positive personality trait (trait resilience). Beyond being a mere personality trait, it is a concept measured over more general psychological traits. However, it is understood that the authors could not reach a clear conclusion about the need for these two separate classifications. Although there are different opinions and findings on the subject, it was suggested that individuals with high resilience can cope with the negative effects of stress, and have higher levels of adaptation (Jacelon, 1997). In this way, having an emphasis on the level of resilience of people appeared to be critical.

Prior studies revealed that there was a significant relationship between the components of mindful self-care and resilience (Bajaj & Pande, 2016; Yelpaze, 2020). For example, Bajaj and Pande (2016) reported that mindfulness predicted resilience, and resilience had a mediating role in the relationship between life satisfaction, positive affect and negative affect among university students. In another study conducted with university students, it was revealed that self-compassion had a full mediator role between cognitive flexibility and resilience (Yelpaze, 2020). Therefore, it can be concluded that self-compassion and mindfulness predicted resilience. Although various studies have been conducted on resilience, its relationship with mindful self-care behaviors has not been examined in terms of prediction and mediation. Only one study examined the predictive role of the components of mindful self-care and resilience on psychological well-being, but the predictive relationship between mindful self-care and resilience was not included in the analysis (McGuinness, 2020). Both mindful self-care and resilience are remarkable concepts for mental and physical health especially during coronavirus pandemic. Due to the lack of research about the predictive relationship between these variables, it was claimed that there is a necessity to conduct a study investigating this relationship. As a result, in this study carried out during pandemic, it was assumed that mindful self-care would increase resilience, and therefore, it increases psychological well-being. In other words, it was suggested that resilience may be a mediating variable between mindful self-care and psychological well-being.

It is known that psychological well-being is discussed frequently, examined from different perspectives, and evaluated through several instruments in the field of

psychology. In general, this term was explained through eudaimonic well-being and hedonic well-being which has philosophical roots in general. In this study, Martin Seligman's concept of well-being of adults was evaluated through his multidimensional approach which comprises positive emotion, engagement, relationships, meaning, and accomplishment (PERMA) (Demirci, Ekşi, Dinçer & Kardaş, 2017).

Consequently, there are studies focusing on the significant relationship between mindful self-care and psychological and/or subjective well-being in addition to the studies that found a significant predictive relationship between resilience and psychological well-being (Chatterjee & Jethwani, 2020; McGuinness, 2020; Sunbul et al., 2018b). Although it was claimed that these three variables are related to each other both theoretically and in the light of the findings of previous studies, limited studies have been reached that covered all of the three variables together. Some of these limited studies scrutinized the effectiveness of mindful self-care and resilience programs on the several well-being measures of the experimental groups. Such as, mindful self-care and resilience program was applied to university employees in Australia to improve their well-being, stress management and self-care, and the findings supported the efficacy of the program (Hegney, Tsai, Craigie, Crawford, Jay & Rees, 2021). Nonetheless, no study has been found to directly apply mindful self-care and resilience programs together in order to promote well-being of people in Turkey yet.

Lastly, the level of COVID-19 anxiety could be a critical variable while examining the relationship between mindful self-care, resilience, and psychological well-being during this period. It was revealed that fear of COVID-19 inversely related to mindfulness and self-compassion as well as positively related to anxiety, depression, and intolerance of uncertainty (Belen, 2021; Tatal & Efe, 2020). Also, coronavirus anxiety correlated with variables associated with negative health outcomes such as impaired functioning and substance use (Lee, 2020). Therefore, it is worth noting that examining the role of the level of COVID-19 anxiety on the link between mindful self-care, resilience, and psychological well-being may yield interesting findings. However, to the best of our knowledge, the role of mindful self-care on resilience and psychological well-being among people who highly worry about COVID-19 pandemic, has not been investigated before. Within these circumstances, it can be stated that doing a research about the relationship between these three variables is

necessary in order to fill the gap in the literature, especially within Turkish sample. Since mindful self-care has recently entered to the literature, it is obvious that more studies should be done on it. Also, it was anticipated that this research will make a good contribution to the literature as of the period the data were collected.

1.2 Purpose of the Study

Previous studies displayed that self-care was approached from a traditional point of view mostly, and these studies were generally conducted among clinical populations and/or people with chronic diseases. Similarly, there was no evaluation of self-care among normal populations as well as emotional and cognitive elements of self-care such as mindfulness were not included in the traditional understanding of self-care. Also, there are very limited studies on mindful self-care, no study was found to investigate this concept in Turkey during coronavirus, and the sample characteristics of these previous studies do not appear to represent the experiences of various groups especially in Turkey as they were among university students only. For these reasons, it was necessary to carry out a study that investigates mindful self-care among diverse groups in Turkey by not only focusing on people with chronic or psychiatric illnesses, and this was the one of the purposes of this research.

Besides these, it was thought that mindful self-care was associated with resilience both theoretically, and based on the findings of previous studies. Since the predictive relationship between them was not studied before, this research aimed to investigate the predictive relationship between mindful self-care and resilience for having a better understanding about the link between them. From another perspective, there were studies on psychological well-being covering these concepts. They displayed that psychological well-being was positively predicted by mindful self-care and resilience through several studies separately. However, it was necessary to investigate how psychological well-being is affected by the link between mindful self-care and resilience. To be more specific, it was aimed to reach a broad conclusion regarding the relationship between mindful self-care, resilience, and psychological well-being by considering the mediator roles of resilience between mindful self-care and psychological well-being in this thesis.

All in all, the purpose of this research was examining the predictive relationship between these three variables by considering the mediator role of resilience on the link between mindful self-care and resilience among adults in Turkey. Likewise,

information about the profiles of the respondents from general population will be obtained through demographic questions (e.g. age, gender, the level of COVID-19 anxiety, and the level of actively following COVID-19 news). In particular, it was also intended to evaluate the role of the level of COVID-19 anxiety on mindful self-care behaviors, resilience, and psychological well-being of individuals during COVID-19 pandemic which involved quarantine periods. To be more specific, the level of COVID-19 anxiety was assessed as a moderator in order to see its role on the link between mindful self-care and psychological well-being when resilience is a mediator. In this way, it was predicted that a more comprehensive model will be obtained that sheds light on the association between these variables. At this point, it was anticipated that this research will contribute to the literature and fill the gap in the research subject.

1.3 Hypotheses

The main hypotheses of this research were listed below. Mindful self-care and resilience were predictor variables, and psychological well-being was the outcome variable in this research.

1. Mindful self-care behaviors positively predict resilience and psychological well-being.
2. Resilience positively predicts the level of psychological well-being.
3. Resilience mediates the relationship between mindful self-care and psychological well-being.

For exploratory purposes, the level of COVID-19 anxiety was added to the model in order to test if resilience mediates the relationship between mindful self-care and psychological well-being when the level of COVID-19 anxiety was a moderator, and the role of gender and age on the model was controlled.

1.4 Significance of the Study

Although the necessity of examining mindful self-care among different variables and populations having various demographic features were emphasized by researchers, there is a lack of study examining the concept of mindful self-care to our knowledge, especially with a Turkish sample. In addition, this concept has not been studied outside of university students in Turkey. It is obvious that it was required to approach self-care from a new perspective, and focus on adults who aged between 18-

71 and from different educational backgrounds in Turkey. In this way, this research will be one of the pioneering studies to address this issue within Turkish sample.

In addition, many researchers found a significant predictive relationship between the components of mindful self-care (e.g. mindfulness) and resilience as well as their predictive relation with psychological well-being. However, a question addressing whether mindful self-care predicts resilience was not examined before. On that account, it was believed that conducting this research was important as it was the first study examining the relationship between mindful self-care and resilience. On the other hand, although it has a protective aspect for the mental and physical health of the people, there was no study focusing on the concept of mindful self-care in COVID-19 period within Turkish sample. Along with these, this will be a first study examining the moderator role of the level of COVID-19 anxiety on the link between mindful self-care and psychological well-being when resilience is a mediator. Consequently, it was predicted that this study will also make a good contribution to the literature as of the period when the data was collected as well as its exploration of the moderator role of COVID-19 anxiety on this relationship. Last but not least, the roles of gender and age will be observed by controlling their effects in order to reach clear conclusions.

Importantly, before data collection, a power analysis was carried out to determine sufficient sample size by taking prior studies into account. In addition, the hypotheses of the current study were preregistered. Therefore, all these practices improve the power, transparency and quality of the current research. As in line with Open Science practices and for maintaining reproducibility in research, materials and dataset of the current research is available on Open Science Framework (OSF; Varan, 2021).

All in all, the findings of this study will shed light on the literature by extending the existing knowledge about the mentioned concepts and filling the gap on it. Also, it will provide a contemporary perspective to the concept of self-care, may guide healthcare professionals and researchers who take necessary precautions, develop programs and implement interventions in cases of psychiatric or medical conditions. More broadly, all people can benefit from the findings of this study who cares about protecting and maintaining physical and mental health, preventing and treating illnesses. In sum, the findings of this research were claimed to be useful in terms of theory and practice.

1.5 Definitions

In this part, the definitions of mindfulness, self-care, mindful self-care, resilience, and psychological well-being were separately provided.

1.5.1 Definition of mindfulness. It is obvious that there are several understandings for the concept of mindfulness. Çatak and Ögel (2010) highlighted body and mind practices, focusing on internal experiences, and a moment when defining mindfulness. Likewise, Kabat-Zinn (2015) denoted it in the light of awareness that is non-judging, non-reacting, and requiring a focus on present moment. On the other hand, Saunders, Rodrigo, and Inzlicht (2016) stated that awareness is explained through attending moment-to-moment experiences such as bodily sensations appearing from the states of body, mind and environment. From another perspective, some researchers emphasized the concepts of dispositional mindfulness (trait mindfulness) as a personality trait, and underlined it as a protective factor for the mental health of people (Brown & Ryan, 2003; Irie & Yokomitsu, 2019). Cook-Cottone & Guyker (2018) explained mindful awareness in terms of the awareness about thoughts, feelings and body, and the careful selection and understanding of thoughts and feelings. Despite of the various perspectives, mindful awareness is about intentional and non-judgemental awareness of what is going on the mind and body of individuals in relation to their thoughts, feelings and body in a present moment which requires introspection.

1.5.2 Definition of self-care. It is known that self-care was described in terms of daily and physical activities of people such as dressing and having a shower, and by using medical terms such as taking medication, visiting doctors regularly by concentrating on people with chronic illnesses or psychiatric problems (i.e. diabetes, heart disease, cancer) traditionally (Riegel et al., 2012; Sunbul et al., 2018b; Archer, 2020). According to one of the former understanding of self-care, not only behavioral practices promoting health (i.e. massage, hobbies etc.), but also behaviors avoided to protect health such as use of substance like tobacco and alcohol, damage to a body part, physical exertion or stressful activity were taken into account (Dean, 1989). Moreover, psychosocial conditions like income, stressful problems available extended family, instrument support, and psychosocial support as well as internal health locus of control and the level of confidence in people's own ability to make decisions about health were contemplated to evaluate the term of self-care.

Recently, it has begun to suggest other areas of life such as engaging in mental health, and having a mindfulness component in the understanding of those behaviors. In a basic definition, self-care is viewed as the promotion of individuals' bodies, emotions etc. in order to protect their health as a part of their responsibility (Salvucci, 2001). This is the one of the descriptions of it in terms of both traditional and contemporary approaches, but in general, health promoted behaviors of daily routines and physical activities were accentuated by researchers as well as healthcare professionals. However, recent understanding of it is changing with a new term of mindful self-care.

1.5.3 Definition of mindful self-care. Mindful self-care is a new concept in psychology which is beyond the traditional self-care conceptualizations by integrating mindful awareness, mindful practices and mindful care to the measure of self-care. Cook-Cottone and Guyker (2015b) (cited in Cook-Cottone and Guyker, 2018) defined it as

an iterative process that involves (a) mindful awareness and assessment of one's internal needs and external demands and (b) intentional engagement in specific practices of self-care to address needs and demands in a manner that serves one's well-being and personal effectiveness (p. 1).

To be more specific, this concept can be understood from the concepts of physical care, mindful relaxation, self-compassion and purpose, supportive relationships, supportive structure and mindful awareness. As Figure 1 exemplified, mindful self-care has roots in the Attuned Representational Models of Self (ARMS) viewing the self as integrating the internal experiences which includes physiological, emotional and cognitive aspects, and external experiences which comprises family, community and culture. In other words, the model considers the self as a display of an operative and continuing process of self-regulation, attunement, and care (Cook-Cottone, 2015c).

From another perspective, the six subscales of MSCS were highlighted to have a match with Maslow's Hierarchy of Needs (Hotchkiss & Cook-Cottone, 2019; Trivedi & Mehta, 2019). As Figure 2 displayed below, the match is in the following: physical care and mindful relaxation with physiological needs, supportive structure with safety

needs, supportive relationships with belonging needs, mindful awareness with cognitive needs, and self-compassion and purpose with esteem needs.

On the other hand, the differentiation between formal and informal mindful and yoga practices was made. Formal practice is about intentional practices such as meditation, yoga etc., while informal practice is about unintentional awareness of several daily acts (going for a walk, meeting with other people etc.) which practiced more often, and related with higher wellness and less burnout risk than formal practices (Cook-Cottone & Guyker, 2018; Hotchkiss & Cook-Cottone, 2019).

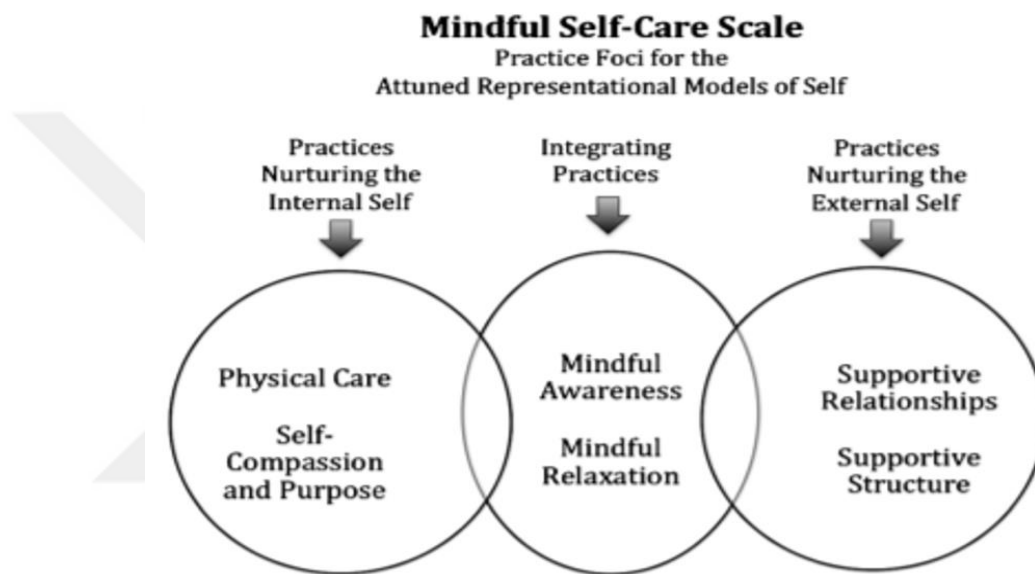


Figure 1. Mindful Self-Care Scale and ARMS (Cook-Cottone & Guyker, 2018)

There are six main dimensions of mindful self-care as suggested by the MSCS developers. As one of them, mindful relaxation is explained as any technique that help people to self-soothe, calm, and relax (Cook-Cottone & Guyker, 2018). As stated by Stolorow (1980), self-soothing was explained in terms of the regulation of positive and negative affects. In contrast, there was a differentiation for the healthy and unhealthy ways of self-soothing. Although substance use, sex addiction, binge eating and vomiting, compulsive shopping etc. could be self-soothing, they are actually evaluated from the context of self-destruction due to their unhealthy nature (Kissen & Kissen-Kohn, 2009). Therefore, the activities of self-soothing or associated with mindful relaxation could be reading a book, writing, drawing, playing an instrument, singing, listening to music, watching movies, smelling things like a lotion, seeing images like nature, and many others (Cook-Cottone & Guyker, 2018). For instance, progressive

muscle relaxation, breathing exercises, and guided imagery are used in psychotherapies and suggested as the techniques of relaxation (Norelli, Long & Krepps, 2021).

According to World Health Organization (WHO) (2020), the definition of physical activity is “any bodily movement produced by skeletal muscles that requires energy expenditure” (para. 1). It was also stated that, it consists of any movements ranging from going from one place to another to leisure time activities. In a broad sense, both deliberate and undeliberate behaviors which are leisure time activities like dancing, doing sports, house cleaning, taking care of a child, and exercising (i.e. walking and running) are the examples of physical activities (Miles, 2007).

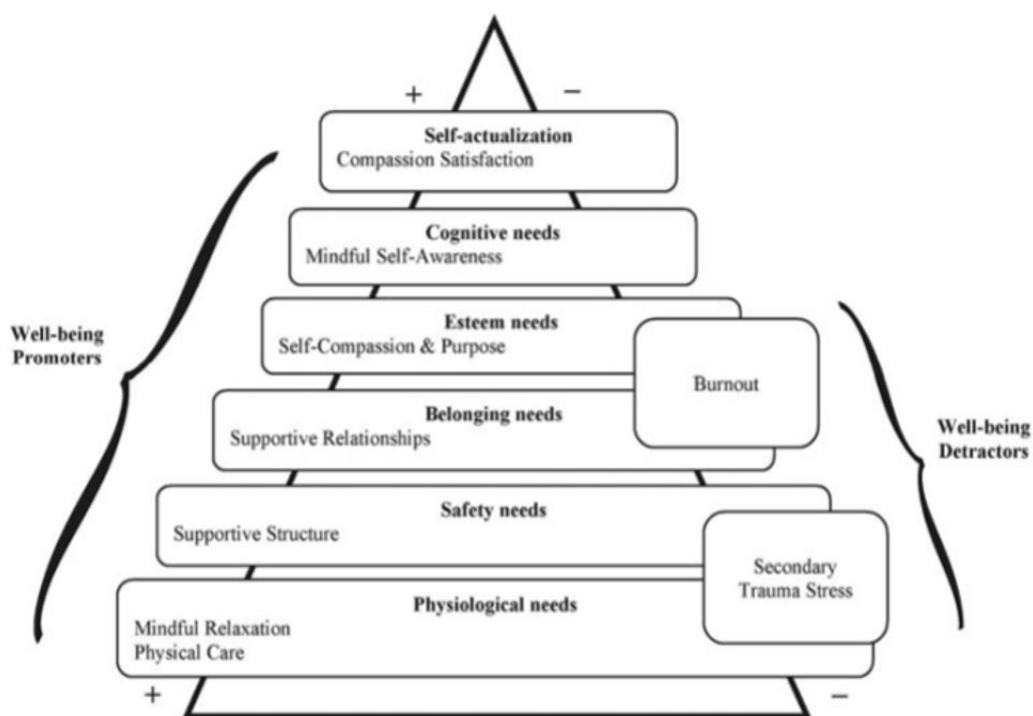


Figure 2. Mindful Self-Care Scale and Maslow’s Hierarchy of Needs (Hotchkiss & Cook-Cottone, 2019)

Previous researchers evaluate the degree of physical activities by using several instruments such as Measured with Minesota Leisure Time Physical Activity Questionnaire, Harvard Alumni/Paffenbarger Physical Activity Survey and Stanford Seven-Day Physical Activity Recall (Dishman, Wasburn & Schoeller, 2001). To this extent, the term physical care includes nutrition, a healthy diet, drinking water,

adequate sleep, engaging in exercising, and other forms of physical activities and mind/body practices like Tai Chi (Cook-Cottone & Guyker, 2018). On that account, it could be any behaviors or activities that maintain physical and psychological well-being of people.

Instead of criticizing oneself when one fails or suffers, self-compassion is about having kindness and indulgency attitude for the self by acknowledging experiences, and not overly identifying with the negative thoughts and feelings (Neff, Kieckpatrick & Rude, 2007). For purpose, Reker, Peacock, and Wong (1987) defined it as in the following: "Purpose refers to intention, some function to be fulfilled, or goals to be achieved" (p. 44). Concretely, Cook-Cottone and Guyker (2018) assessed the degree of self-compassion and purpose in terms of having an acknowledging stance for the challenges, difficulties, failures and feelings, and being supportive and relaxing to oneself. Furthermore, having purpose in one's private life as well as school or work life can be considered another criterion for having higher levels of self-compassion and purpose.

Supportive relationships were evaluated in terms of selection and pursue of positive relationships with people (Sunbul, 2018b). In the literature, the terms of social support, social network, social interaction, social relationships, and close relationships were used to indicate these, and there was no consensus about the exact definitions of them. For instance, social support is understood from the role of promoting health of people due to the nature of their social relationships as these relationships provide resources (i.e. psychological and material) to them (Rodriguez & Cohen, 1998). To be more specific, scheduling and spending time with people who support, listen and cares about a person, and the feelings of being supported and respected by those people exemplifies having supportive relationships (Cook-Cottone & Guyker, 2018). Likewise, supportive structure is described as having a structure which supports people in school or job environment, and therefore, people can manage the requests of outside sources (Sunbul, 2018b). Specifically, having a manageable schedule, organizing school and job environment, balancing internal and external demands, and having a comfortable environment are the characteristics of supportive structure. In this way, this term expresses the reflection of a supportive structure in human life at both and macro level.

In previous studies, the terms of mindful awareness, mindfulness and/or self-awareness were used interchangeably, and there are diverse explanations about them.

The definition of mindfulness was explained in the part of definition of mindfulness. Basically, it focuses on inner experiences of people, understanding these experiences, and living in the present moment.

In sum, the concept of mindful self-care in this study took into consideration of the contemporary approach of self-care which has mindfulness component, able to address the behaviors and practices of both healthy and unhealthy people, stressing both internal and external experiences of them, and has a multidimensional perspective.

1.5.4 Definition of resilience. Not surprisingly, resilience has various definitions in the literature as a widely used concept. Basically, American Psychological Association (APA) (2014) defined it as “the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress – such as family and relationship problems, serious health problems, or workplace and financial stressors” (para. 4). From another point of view, having resilience means that mental well-being quickly recovers when exposed to stressors that could be a traumatic event, situations creating challenges, diseases or important life transitions (Kunzler, Helmreich, Chmitorz, König, Binder, Wessa & Lieb, 2020).

It was generally accepted that personal factors (characteristics, self-efficacy etc.), biological and genetic factors (receptors and their sensitivity etc.), environmental factors (social relationships etc.), and the interaction between these factors contributes to have a high or low resilience (Herrman, Stewart, Diaz-Granados, Berger, Jackson & Yuen, 2011).

In a meta-analysis, Oshio et al. (2018) revealed that previous studies conceptualized resilience as ego-resiliency and trait resilience indicating no consensus for this term among researchers. According to them, “ego-resiliency refers to the individual’s adaptive reserve, a dynamic ability to temporarily change the reactions and perceptions to meet the situational demands of life” (p. 54). According to Murzyn (2020), this term was explained by comparing it with ego control which is about the level of restricting impulses that ranges from overcontrol to undercontrol, while ego resiliency is about the level of modification on this restriction in various situations. Block (1993) and Letzring, Block and Funder (2005) claimed that people with high ego-resiliency are likely to adapt to new situations more, have more resources, high social skills and emotional stability, be more flexible and cope with stress better than

people with low ego-resiliency. Additionally, lack of delay of gratification and predictability could be the examples of the traits of undercontrolled people, and having consistency and calmness could be examples of the traits of overcontrolled people. Considering these, having ego-resiliency and balance of ego-control are associated with the good outcomes on people's lives.

On the other hand, trait resilience or trait orientation was evaluated in terms of specific personality characteristic enhancing the adaptation of people, and coping with difficulties (Hu, Zhang & Wang, 2014; Oshio et al., 2018). Also, some instruments were specifically developed to measure trait resilience such as Resilience Scale. From another perspective, it was mentioned that there are two other views about resilience which are outcome and process in addition to trait. According to these, resilience is conceptualized as either dynamic processes or behavioral outcomes (Masten 2001; Hu et al., 2015). Other researchers specified that most of the descriptions of resilience underlined the concepts of adaptability and sustaining mental health although facing with difficulties (Herrman et al., 2011). On the other hand, perception of self, perception of future, structured style, social competence, family cohesion, and social resources were considered in evaluating resilience (Basım & Çetin, 2011). In this sense, despite of having no consensus for the description of this notion, it is obvious that researchers focused on the positive outcomes of resilience on people's lives in general.

In this study, resilience was discussed in terms of quick return to previous functionality, recovery, and adaptation when faced with several adversities such as diseases and psychological problems (Doğan, 2015). Particularly, this perspective was chosen in this research because, it was pointed out that Brief Resilience Scale (BRS) measures the main definition of resilience, rather than focusing on the factors and/or traits related to it (Smith, Dalen, Wiggins, Tooley, Christopher & Bernard, 2008).

1.5.5 Definition of psychological well-being. Recently, there are several definitions and distinct perspectives about psychological well-being, especially in the field of positive psychology. As stated by Butler and Kern (2016), the concepts of well-being, happiness, subjective well-being, thriving, flourishing, wellness, life satisfaction, and quality of life are alike to each other, and appear to reflect the same construct in the field of psychology (Tuzgöl-Dost, 2005; Butler & Kern, 2016). Thus, these terms can be used interchangeably to refer wellness.

Basically, there is a differentiation between hedonic and eudaimonic well-being in the literature. According to Waterman, Schwartz, Zamboanga, Ravert, Williams, Bede Agocha, Kim and Brent Donnellan (2010), eudaimonic means self-discovery, reaching the best of one's potential, seeking purpose and meaning, and engaging in activities for this purpose. Contrarily, hedonic well-being is expressed in terms of happiness, positive emotions, life satisfaction, avoidance of pain, and focusing on pleasure (Kahneman, Diener & Schwarz, 1999). More broadly, the term positive mental health comprises both hedonic and eudaimonic approaches as it is about subjective well-being and functionality (Huppert, 2005). It is clear that the description of well-being contains the variables of hedonic or eudaimonic well-being, or both of them at the same time.

For instance, psychological well-being is assessed in terms of positive and negative affects by focusing on subjective happiness of people (Bradburn, 1969). Likewise, Watson, David, Clark, and Tellegen (1988) emphasized positive and negative affect in which positive affect is associated with the degree of enthusiasm, activity, and alertness, and negative affect is associated with distress having mood states of negative emotions. Additionally, Diener (1984), defined subjective well-being in the light of satisfaction with life, and positive and negative affect by addressing cognitive and affective evaluations of people. However, Ryff and Singer (cited in Kalafatoğlu & Balcı-Çelik, 2020) criticized subjective well-being due to its emphasis on pleasure, and the term psychological well-being appeared.

From another perspective, Ryff (1989) highlighted psychological functioning, and conceptualized psychological well-being as it is more than just feeling good. Therefore, in Ryff's multidimensional model, psychological well-being is assessed in terms of six subscales which are autonomy, positive relations with others, environmental mastery, purpose in life, personal growth, and self-acceptance. Keyes (1998) did a research on the components of social well-being which are social integration, social contribution, social coherence, social actualization, and social acceptance. Along with this, Keyes (2002b) highlighted the importance of emotional and psychological well-being, and suggested that flourishing can be understood from the existence of mental health, and languishing is about the nonexistence of it. Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi, and Biswas-Diener (2010) evaluated flourishing regarding purpose and meaning, social relationships, engaging in daily activities, happiness, competence, satisfaction with life, optimism, and self-esteem. Overall,

subjective well-being and psychological well-being were differentiated from each other as subjective well-being focuses on life satisfaction and positive affects, whereas psychological well-being addresses existential challenges such as the pursue of goals (Keyes, 2002a).

Importantly, psychological well-being is defined in terms of positive emotion, engagement, relationships, meaning, and accomplishment (PERMA) in Seligman's definition as he evaluated this term in a multidimensional perspective (Demirci et al., 2017). According to Butler and Kern (2016), this term is defined as "a dynamic optimal state of psychosocial functioning that arises from functioning well across multiple psychosocial domains" (p. 2). In their understanding, loneliness, physical health, negative emotions, and overall well-being were taken into account. Their claim was that flourishing is not only about nonexistence of negativity in terms of functioning, diseases, affect, depression, and feeling lonely and insecure because these do not mean that there is a positivity (i.e. positive emotions, social connectedness, or well-being) exists.

In Seligman's model, positive emotion is evaluated through contentment and joy while negative emotion is evaluated with sadness, anxiety, and anger. Other researchers categorized negative emotions as disgust, sadness, anger, rage, fear, anxiety, hate, upset, contempt while positive emotions as happiness, love, joy, and pride (Solomon & Stone, 2002; Koch, Forgas & Matovic, 2013). According to Watson et al. (1988), positive affect consists of the following emotions: attentive, active, alert, excited, enthusiastic, determined, inspired, proud, interested, and strong. Also, negative affect contains the following emotions: hostile, irritable, ashamed, guilty, distressed, upset, scared, afraid, jittery, and nervous.

In this model, engagement is about the degree of interest and involvement in activities by focusing on flow experience. Identically, Schaufeli (2013) described it in terms of involving, committing, being passionate and enthused, absorbed, dedicated, and energetic. Relationships were defined in terms of the degree of support, love and value of other people towards oneself in PERMA model of psychological well-being. In a similar way, these kind of relationships were understood from their role of social support for people, and the selection and maintenance of these relationships (Sunbul, 2018b). Reker et al. (1987) portrayed meaning as in the following: "Meaning refers to making sense, order, or coherence out of one's existence" (p. 44). According to Butler and Kern (2016), meaning is about the

existence of purpose and direction in one's life, life is viewed as worthy to live, and there is a connection with other things beyond ourselves like a faith. According to Seligman's model, accomplishments are described in terms of success and achieving goals, and more importantly, the feelings related to achievements (Butler & Kern, 2016). Physical health is understood in terms of people's self evaluation of their general health status, their satisfaction level with their physical health, and comparing their health with others having same gender and age with them. It is accepted that overall well-being can be defined in various ways. In Seligman's model, in addition to positive emotion, engagement, relationship, meaning, accomplishment, happiness (self-perception about happiness) is considered. Loneliness is about people's perception their level of loneliness in their daily lives in PERMA model. Similarly, Russel, Peplau, and Ferguson (1978) considered loneliness in terms of subjective feelings associated to it as well as social isolation. Likewise, according to Kern, Benson, Steinberg, and Steinberg (2015), well-being of adolescents can be understood from the levels of engagement, perseverance, optimism, connectedness, and happiness (EPOCH) based on the conceptualization of Seligman.

In sum, due to the inclusion of both of the components of eudaimonic and hedonic well-being in a current and multidimensional perspective, PERMA model of psychological well-being was used to evaluate, and assess this concept among adults in this research.

Chapter 2

Literature Review

Literature review part involves the studies and measurement of the mindfulness, self-care, mindful self-care, resilience and psychological well-being, and provides information about the relationship between the variables of resilience, mindful self-care, and psychological well-being.

2.1 Mindfulness, Self-Care, and Mindful Self-Care

The measurement and studies about the concepts of mindfulness, self-care, and mindful self-care were detailed in this section.

2.1.1 Mindfulness: measurement and studies. Not surprisingly, several researchers used different tools to assess the level of mindfulness among people. Mindful Attention Awareness Scale (MAAS) (Brown & Ryan, 2003), Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) (Feldman, Hayes, Greeson & Laurenceau, 2007), Five Facet Mindfulness Questionnaire (FFMQ) (Baer, Smith, Hopkin & Kitemeyer, 2006), Toronto Mindfulness Scale (TMS) (Lau, Bishop, Segal, Buis, Anderson, Carlson, Shapiro, Carmody, Abbey & Devins, 2006), Kentucky Inventory of Mindfulness Skills (KIMS) (Baer, Smith & Allen, 2004), Freiburg Mindfulness Inventory (FMI) (Walach, Buchheld, Buittemuller, Kleinknecht & Schmidt, 2006), Adolescent and Adult Mindfulness Scale (AAMS) (Drouman, Golub, Oganessian & Read, 2018), Philadelphia Mindfulness Scale, (PHLMS) (Cardaciotto, Herbert & Forman, 2008), and Southampton Mindfulness Questionnaire (SMQ) (Chadwick, Humber, Symes, Peters, Kuipers & Dagnan, 2008) are the examples of the scales used to measure it.

In another perspective, there are several programs aiming to increase the level of mindfulness to promote well-being of people, and psychotherapies having the component of mindfulness. According to Akçakanat and Köse (2018), mindfulness has roots in the following theories and psychotherapies: Cognitive-Behavioral Therapy, Gestalt Psychotherapy, Psychodynamic Psychotherapy, Humanistic Psychotherapy, and Existential Psychotherapy. Recently, there is a growing interest towards Mindfulness-Based Cognitive Therapy, Acceptance and Commitment Therapy, and Dialectical Behavior Therapy which has the concept of mindfulness.

According to the previous studies, mindfulness was associated with many variables in the field of psychology. For instance, Brown and Ryan (2003) conducted a validation study among diverse groups, and it was revealed that there was a positive correlation between mindfulness and the following variables: emotional intelligence, life satisfaction, self-esteem, autonomy, and competence. Oppositely, there was a negative correlation between mindfulness, and depression, anxiety, and physical symptoms. In a review study of Aktepe and Tolan (2020), it was indicated that mindfulness had great benefits on several psychopathologies which are depression, anxiety, stress, eating disorders, borderline personality disorder, chronic pain, addictions, and schizophrenia. Along with these, its positive effects on self-esteem, intolerance to uncertainty, and psychological well-being of adults, adolescents, and children were supported by several studies.

Mindfulness draws attention in the COVID-19 period as well. Mindfulness is viewed as a good strategy for coping with stressful life events (i.e. COVID-19 pandemic) since a research on Chinese people manifested that the ones practicing mindfulness had better mental health outcomes as their depression, anxiety, and stress levels were lower than the ones who didn't practice it (Conversano, Giuseppe, Miccoli, Ciacchini, Gemignani & Orrù, 2020; Zhu, Schülke, Vatansever, Xi, Yan, Zhao, Xie, J. Feng, Chen, Sahakian & Wang, 2021). In another study conducted in Turkey, Belen (2021) found that there was an inverse association between fear of COVID-19 and mindfulness, and positive association between fear of COVID-19 with anxiety and depression levels of people. Thus, mindfulness was found as a significant mediator on the link between fear of COVID-19 and depression/anxiety. From another standpoint, it was figured out that dispositional mindfulness helped employees to ready for a change if they have higher levels of well-being and lower levels of distress (Roamer, Sutton & Medvedev, 2021). In regards to impact of COVID-19 period on cognitive functioning, a longitudinal study was carried out to investigate mindfulness levels of young adults both before and at the time of quarantine in terms of cognitive failures, intrusive thoughts, and rumination as well as emotions, SES, and housing circumstances (Lopez, Caffò, Tinella, Di Masi & Bosco, 2021). The findings manifested that there were increased rumination and failures in cognition, and this was more salient among people who had a diminishing levels of mindfulness. Moreover, lack of privacy and financial troubles were predictors of instability on mindfulness levels.

In another context, the relation with self-care and demographic variables of gender and age were examined by researchers. Alispahic and Hasanbegovic-Anic (2017) asserted that there was a significant distinction between the scores of mindfulness among males and females as well as among different age groups in Bosnian general population. In particular, among the subscales of FFMQ, observing scores were higher among females, and acting with awareness scores were higher among males. Additionally, older people had higher scores on mindfulness than young people especially on acting with awareness, and non-judging of inner experience. Parallely, mindfulness scores were higher on females, and when the age of people increases (Thirumaran, Vijayaraman, Irfan, Moinuddin & Shafaque, 2020).

Considering all these positive predictions on health-related outcomes, it has been seen that various programs on mindfulness have been developed and implemented in order to protect and maintain mental and physical health through mindfulness such as Mindfulness-Based Stress Reduction (MBSR), Mindful Self-Compassion Program (Kabat-Zinn, 2003; Neff & Germer, 2013). It is obvious that the purpose of these programs are common even they differ from each other in terms of use of videos, mobile applications, being in the form of a lesson and/or face-to-face intervention, individual or group interviews, conducting surveys, and so on.

In a systematic review covering research until 2019, the impact of MBSR on the psychological functioning among healthcare professionals was searched (Kriakous, Elliot, Lamers & Owen, 2021). The result was that these programs were useful for decreasing depression, anxiety, and stress levels of these people as well as increasing mindfulness and self-compassion among them. In addition, the usefulness of MBSR was not alike for the decrease in burnout levels, and improvement of resilience levels. Similarly, a review about the effectiveness of MSBR and MBCT argued that these programs were beneficial for employees' mental health (Janssen, Heerkens, Kuijer, van der Heijden & Engels, 2018). The Mindfulness-Based programs for increasing the level of mindfulness were also applied during COVID-19 pandemic. In a study of Accoto, Chiarella, Raffone, Montano, de Marco, Mainiero, Rubbino, Valzania and Conversi (2021), 6-week MBSR program had positive effects on mindfulness skills, psychological well-being, post-traumatic growth, and resilience levels during coronavirus. On the other hand, Inquiry-Based Stress Reduction Program were found to be effective to increase the levels of resilience, burnout, mindfulness, stress, subjective and psychological well-being of teachers in Israel (Zadok-Gurman,

Jakobovich, Dvash, Zafrani, Rolnik, Ganz & Lev-Ari, 2021). Similarly, completing 8-week Mindfulness-Oriented Meditation (MOM) course increased the level of mindfulness skills, empathy, personality profiles, interoceptive awareness, well-being, emotional distress, and burnout on female teachers in Italy as well as people benefited from an application which focuses on mindfulness and stress management of people (Matiz, Paschetto, Cantone, Paolone & Crescentini, 2020; O'Connor, 2020). Comparably, a mindfulness-based mobile health intervention was conducted among students in China during lockdown. Pretest and posttest results revealed that this intervention having mindfulness and social support for these people had good outcomes on the levels of distress among participants (Sun, Lin, Goldberg, Shen, Chen, Qiao, Brewer, Loucks & Operario, 2021). For these reasons, these kind of interventions having mindfulness component were found to be helpful both before and during COVID-19 pandemic.

All in all, during pandemic or not and in a cross-cultural perspective, internet-based or not, trait or learned as a strategy, higher levels of mindfulness are associated with better health outcomes among people all around the world.

2.1.2 Self-Care: measurement and studies. The relationship between self-care, and many other variables were examined by researchers in the field of psychology and medicine. Especially, in order to test self-care in a traditional point of view, several measures targeting diverse populations (i.e. people with disease) developed and used by researchers. The examples of the self-care measures are in the following: The Self-Care Scale (González-Vazquez, Mosquera-Barral, Knipe, Leeds & Santed-German, 2018), Professional Self-Care Scale (Doraciak, Rupert, Bryant & Zahniser, 2017), Hypertension Self-Care Profile (Han, H. Lee, Commodore-Mensah & Kim, 2013), Self-Care Assessment Tool (SCAT) (McFarland, Sasser, Boss, Dickerson & Stelling, 1992), Activities of Daily Living (ADL) Self-Care Scale (Gulick, 1987), Adolescent Dysmenorrhic Self-Care Scale (ADSCS) (Hsieh, Gau, Mao & Li, 2004), Confidence in Diabetes Self-Care (CIDS) (Van der Ven, Adèr, Weinger, Van der Ploeg, Yi, Snoek & Pouwer), and MSCS (Cook-Cottone & Guyker, 2018). Along with these, the concept of self-care self-efficacy is measured by Strategies Used by People to Promote Health (SUPPH), and self-care agency is measured with Exercise of Self-Care Agency Scale (ESCA) (Lev & Owen, 1996; Kearnay & Fleischer, 1979).

Martínez, Connelly, Perez, and Calero's (2021) review study delineated several notions related to self-care, in terms of attributions, prediction, and outcome. Figure 3 displayed these variables below. According to the table, antecedents of self-care were categorized as patient-related (i.e. self-efficacy, cognitive level, triggering event, and self-care agency), and system-related variables (i.e. cultural context, social support, and adequate resources). In terms of attributes, self-control, self-reliance, and awareness stand out. Moreover, its consequences were evaluated in terms of desired outcomes, decreased risk for complications, symptom control, health, satisfaction, healthcare costs, coping, sense of control, sense of being, well-being, and quality of life.

Fundamentally, higher self-care behaviors predicted higher compassion satisfaction scores and lower burnout scores (Bloomquist, Wood, Freidmeyer-Trainor & Kim, 2016). Moreover, professional self-care, emotional self-care, and spiritual self-care predicted professional quality of life among social workers. This means that self-care behaviors have a role on the health of people in terms of prediction.

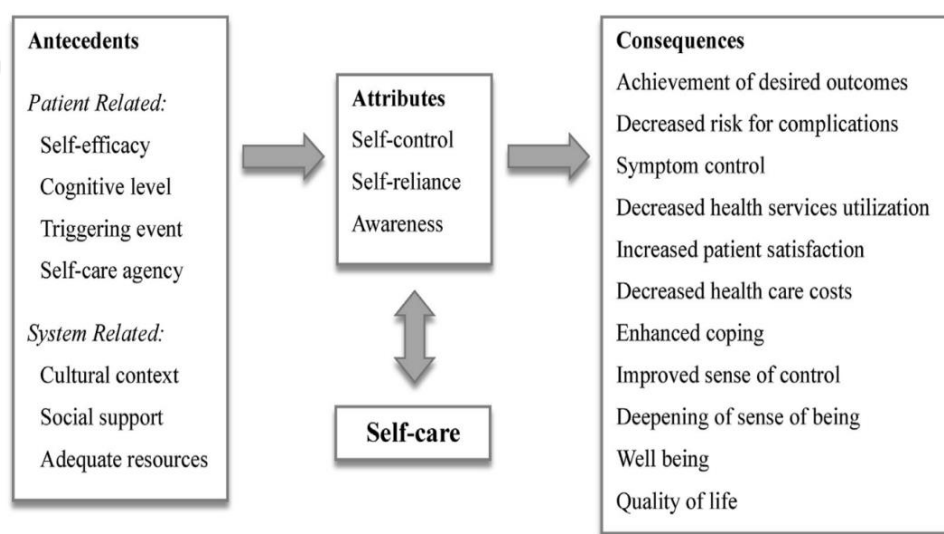


Figure 3. Self-care-related variables (Martínez et al., 2021)

According to the findings of previous studies, self-care was influenced by demographic variables such as gender, age, and SES. Adkins-Jackson (2020) asserted that there was a difference between the levels of self-care among people in terms of lower and higher SES. In here, SES contains income, employment, occupation, the

number of dependent people, and highest degree of education of people. Likewise, higher SES and lower age increased the likelihood of higher levels of self-care among women who had a diastolic heart failure as well as higher SES among females was associated with healthy habits and pregnancy period in terms of complications and weight gain, and attending prenatal appointments more than people with low SES (Gary, 2006; Larrañaga, Santa-Marina, Begiristain, Machón, Vrijheid, Casas, Tardón, Fernández-Somoano, Llop, Rodriguez-Bernal & Fernandez, 2013). From another perspective, gender is an important variable as well in the level of self-care of males and females since health maintenance behaviors were distinct among them, such as men use more tobacco and/or alcohol than females, or physical functionality of females were lower than males (Heo, Moser, Lennie, Riegel & Chung, 2008; Dean, 1989; Friedman, 2003). As a result, consideration of demographic variables is critical to evaluate the self-care behaviors of individuals.

Recently, the findings of a study completed by Disabato, Aurora, Sidney, Taber, Thompson, and Coifman (2021) investigated the relationship between positive affect, negative affect, and self-care in college students in U.S. during Covid-19 period. As a result, they claimed that due to the nature of coronavirus period, there was an increase in the amount of self-care in the beginning of this period. However, the relationship between self-care and negative affect as well as self-care and positive affect was divergent in terms of day-to-day changes. Moreover, they found that the positive outcomes related to self-care behaviors was apparent in that day. In other words, their effects do not last long within these conditions.

In the work of Slonim, Kienhuis, Di Benedetto, and Reece (2015), Five Facet Mindfulness Questionnaire, the Health Promoting Lifestyle Profile II and Depression, Anxiety and Stress Scales (DASS) was used to assess the relationship between self-care, dispositional mindfulness, and psychological distress among medical students. Results delineated that distress, mindfulness, and self-care were significantly correlated with each other. Also, dispositional mindfulness was found to be a moderator on the link between different dimensions of self-care (health responsibility, nutrition, physical activity, spiritual growth, interpersonal relationships, and stress management) and psychological distress. From another point of view, mindfulness mediated the relationship between self-care and well-being in mental health professionals (Richards, Campenni & Muse-Burk, 2010). 24am elin reason,

concentrating on the link between mindfulness, self-care, and well-being seems to be necessary to reach indicative conclusions.

Currently, the contemporary approach of self-care draws attention by researchers. For instance, Hotchkiss and Cook-Cottone (2019) indicated that despite of the benefits of traditional models of self-care for healthcare professionals, they were found to depict self-care as a task, instead of viewing it a way to live. As self-care is related to the several terms in the field of mental health, it is worthy covering them in this paper. Therefore, self-care studies and its relation with other variables such as wellness, stress, and burnout will be reported in the following chapters by underlining the concept of mindful self-care.

2.1.3 Mindful Self-Care: its components and studies. It is accepted that there is a growing interest in mindfulness-based interventions and self-care practices all around the world. Especially, mindful self-care is linked to many concepts among adults in the field of psychology. As it was mentioned before, traditional measures of self-care did not focus on this notion from a multidimensional perspective by mentioning about mindfulness and the activities of non-clinical populations. Beyond that, mindful self-care studies may not be limited to the adults. For instance, Boivin and Melito-Conners (2021) argued that the mindful self-care behaviors could be helpful in the adaptation period of children to a daily school routine by considering the concepts like hygiene, autonomy, and nutrition. Other concepts related to mindful self-care and its components were exemplified below.

A program named as Mindful Self-Care for Caregivers (MSCC) was designed and applied by Bellone, Elliott, Hynan, Warren, and Jarrett (2021) for parents with children having Autism Spectrum Disorders (ASD). The results manifested that there was a reduction in the levels of perceived stress and depression among these parents as they showed increases in their feelings of competence and mindfulness skills in their parenting role.

In a self-report survey among health care professionals, there was a positive correlation between compassion satisfaction and mindful self-care as well as inverse association between burnout and secondary traumatic stress (Hotchkiss & Leshner, 2018; Hotchkiss, 2018). Moreover, the link between compassion satisfaction and burnout was mediated by mindful self-care and secondary traumatic stress among chaplains from various countries and health care professionals. From this perspective,

Depner, Cook-Cottone, and Kim (2020) examined the predictors of Professional quality of life (ProQoL) by considering mindful self-care behaviors and meaning made among palliative care workers. The results of this study manifested that meaning made mediated the relationship between mindful self-care and ProQoL.

An interesting study done with people with marital conflict or not in Tehran (Mehrizi, Mousavi, & Baghari, 2020). Their findings suggested that the level of mindful self-care and relationship maintenance strategies were low, and avoidant and anxious attachment styles had greater scores among married individuals who are distressed. Furthermore, it was claimed that issues who are not resolved between partners were evaluated to have a negative role on self-care and relationship maintenance strategies of people as well as these issues were associated with avoidant and anxious attachment styles among couples.

In a mixed-methods study, Cleofas (2021) found that self-care practices positively correlated with online student engagement even in the difficult circumstances of distance education and COVID-19 pandemic. However, being older, women, and having low SES were associated with the decreased levels of self-care practices among university students. Furthermore, barriers to practicing self-care were ranged from quarantine-related barriers (i.e. lower social interaction, outdoor activities, closing of self-care-related services) to online-class-related barriers (i.e. time-consuming academic workload and online-class related time consumption).

As suggested by Tylka, Piran, Cook-Cottone, Alleva, Martz and Webb (2015) (cited in Cook-Cottone, 2015a) preliminary findings about MSCS indicated that eating disorders risk and substance abuse on males had a negative relation with mindful self-care. In this way, Cook-Cottone and Guyker (2018) stated that there was a positive correlation between mindful self-care and body-esteem, and negative correlation between mindful self-care and eating disorder risk. According to the writers, disconnection, burnout, conflict, self-harm, disturbed body image or body dissatisfaction, substance-use issues, and eating disorders can occur when there is a lack of positive embodiment among people. In an examination, there was a negative association between depressive symptoms and mindful self-care as well as positive correlation between depressive symptoms and negative body image among women who are pregnant, in the period of postpartum or early motherhood (Webb, Scritchfield, Thomas, Lisenbee, Mooney & Rogers, 2019). Specifically, negative body

image mediated the relationship between depressive symptoms and mindful self-care on these mothers in U.S.

There are several validation studies of MSCS which is a measure of mindful self-care. In this way, in a study among university students in Turkey, there was a significant positive correlation between MSCS and Mindful Attention Awareness Scale-Adolescent (Sunbul et al., 2018a). For the validation of MSCS and developing brief version of it, Hotchkiss and Cook-Cottone (2019) completed a study on hospice and healthcare professionals and chaplains. According to their findings, life satisfaction and compassion satisfaction were positively correlated with all of the subscales of mindful self-care, and secondary traumatic stress and burnout were negatively correlated with all of the mindful self-care factors.

In another validation study among emerging adults, the subscales of mindful self-care significantly and positively correlated with life satisfaction except mindful relaxation, and negatively correlated with depression, anxiety, and stress except mindful relaxation (Archer, 2020). The researcher explained that mindful relaxation subscale had a low reliability and may not measure what is intended to measure in comparison to other subscales. In addition, the differences among females and males were found in which males had higher scores on physical care and mindful awareness in this study. Currently, MSCS and Brief Mindful Self-Care Scale (B-MSCS) were adapted to the Chinese language among general Chinese population and hospice nurses as well, and found to be correlated with self-compassion and well-being (M. Y. C., Wong, 2020; Z. Yang, Chen, Liu, Dai & Zhang, 2021).

In a cross-sectional survey among nurses, the results indicated that the level of mindful self-care of nurses were low in general. In terms of demographic characteristics, the scores were higher on females, compared to males. Moreover, nurses of younger ages (21-27) and have less clinical experience (1-5 years) were found to have higher scores on mindful self-care than others (Zeb, Arif & Younas, 2021). Contrarily, Vanucci and Weinstein (2017) reported that the age of nurse entrepreneurs differentiated the practices of mindful self-care. In particular, older ones were engaged in more mindful self-care behaviors than younger ones. This distinct results could be due to the nature of their work and the levels of workload, but highlights the importance of demographic characteristics in order to discern mindful self-care behaviors of people. However, since the concept is currently appeared, few

research focused on the relationship between mindful self-care and demographic characteristics of people.

All things considered, recently mindful self-care and its components draws attention by researchers and mental health professionals. Both its components and overall mindful self-care were associated with many terms such as compassion satisfaction, secondary traumatic stress, meaning made, burnout, eating disorder risk, substance use, unresolved conflicts between couples, attachment styles, online student engagement, body esteem, negative body image, depression, anxiety, and stress. These relationships in terms of health-related outcomes (i.e. resilience and mindful self-care) both during and before COVID-19 pandemic will be detailed in other parts of this paper.

2.2 Resilience: Measurement and Studies

This part comprises the measurement and studies about resilience as well as the relationship between mindful self-care and resilience.

2.2.1 Measurement of resilience. There are several measurement instruments of resilience that pointed out distinct aspects of it. To be more specific, Baruth Protective Factors Inventory, Connor and Davidson Resilience Scale (CD-RISC), Resilience Scale for Adults (RSA), Adolescent Resilience Scale (ARS), Brief Resilient Coping Scale (BRCS), Resilience Scale (RS), and Brief Resilience Scale (BRS) are some of the widely used resilience scales. For example, Basım and Çetin (2011) compared these measures in terms of their contents, the number of items, reliability, validity, number of factors, theoretical model, positive and negative sides. In this way, Baruth Protective Factors Inventory and RSA emphasized protective factors, CD-RISC and BRCS emphasized coping with stress, ARS and RS emphasized personality traits, and BRS emphasized the main meaning of the resilience as mentioned before.

Furthermore, most of them were adapted Turkish sample or developed within it, and concentrated on the different developmental periods of people (children, adults etc.). The following also illustrates other salient measures of resilience: Resilience Scale for Young Adults (RSYA), Resilience and Youth Development Module, Social Emotional Well-being and Psychological Resilience Scale for Preschool Children (PERIK), Child and Youth Resilience Measure (CYRM), Resiliency Attitude and Skills Profile (RASP), Adolescent Psychological Resilience Scale (APRS),

Psychological Hardiness Scale, and Child and Youth Resilience Measure-28 (CYRM-28) (Prince-Embury, Saklofske & Nordstokke, 2016; Gizir & Aydin, 2006; Özbey, 2019; G. Arslan, 2015, Akar & Aktan, 2020; Bulut, Doğan & Altundağ, 2013; Işık, 2016; Liebenberg, Ungar & Van de Vijver). In short, resilience is a term on which many measurement tools have been developed, and used by covering diverse concepts and populations.

2.2.2 Studies about resilience. Resilience is one of the most studied concepts in the field of psychology due to its crucial role on mental health of individuals. Its association with several variables such as personality, trauma, and stress were examined frequently.

According to the meta-analysis of Hu et al. (2015) there was a positive correlation between trait resilience, life satisfaction, and positive affect as well as negative correlation between trait resilience and depression, anxiety, and negative affect. In another research, interviews among successful individuals revealed that predictors of resilience were experience and learning, positive and proactive personality, flexibility and adaptability, sense of control, perceived social support, and balance and perspective (Sarkar & Fletcher, 2014). Also, self-confidence correlated with resilience, and self-esteem was predicted by resilience among university students (Pinar, Yildirim & Sayin, 2018; Y. Liu, Wang, Zhou & Li, 2014).

On the other hand, resilience draws attention due to its relationship between trauma and stressful events. Importantly, resilience is viewed as an helpful strategy to cope with the outcomes of the traumatic events (Connor, 2006). In a survey of Labrague (2021), stress appeared due to coronavirus was found to be related with the low levels of life satisfaction and psychological well-being. Nonetheless, resilience was a key variable in this relationship, because it decreased the negative impacts of stress on these two variables among nursing students. From another perspective, Dereceli (2021) disclosed that perceived stress predicted the level of resilience among students of sport sciences faculty in Turkey during COVID-19 period. Ay, Oruç, and Özdoğru (2021) asserted that resilience had an inverse correlation between fear of COVID-19 and the subscale of COVID-19 Related Psychological Distress Scale (CORPD) which is fear and anxiety among adults in Turkey. At the same time, resilience inversely predicted the fear of COVID-19 among people aged 18-65 in Turkey (Tutal & Efe, 2020). Another positive predictors of resilience were found to

be hope, meaning, satisfaction with life, and nontraumatic experiences among adults in Turkey during coronavirus period (Karataş & Tagay, 2021). In this sample, the negative predictors of resilience were intolerance of uncertainty and COVID-19 fear. Lastly, being male or female and having a diagnosis of COVID-19 did not predict it. Overall, previous studies indicate a significant association between fear of COVID-19 and resilience, but the direction of it may change from one study to another.

Demographic variables of age, gender, and adversity were found to be important variables to understand the levels of resilience of individuals. For instance, a research was conducted among residents who experienced adversities in Kenya. The findings of it illustrated that people with older ages, and males had higher levels of resilience compared to females and people with younger ages (Sambu & Mhongo, 2019). In a parallel way, Campbell-Sills, Forde, and Stein (2009) mentioned that the level of resilience decreases among people having low educational level and income, among females, and having a childhood maltreatment history. Again, the level of resilience and anxiety were lower among women than men during COVID-19 in Turkey, but educational level, marital status, the number of people and province they live in had no role on the levels of these two variables (Artan, Atak, Karaman & Cebeci, 2020).

From another point of view, it is known that there are many interventions and programs aimed to foster resilience of people. According to a meta-analysis on resilience enhancing programs which have mindfulness-based and/or cognitive-behavioral based approaches, the effect size of these programs were statistically significant, although there was a small effect size (Liu, Ein, Gervasio, Battaion, Read & Vickers, 2020). For instance, the pilot study of The Resilience Program had good results in terms of mental health of participants in Denmark (Bak, Midgley, Zhu, Wistoft & Obel, 2015).

In short, resilience may change according to demographic variables, and viewed as good for mental health related outcomes, and this led to the development and application of several programs and interventions emphasizing resilience that were found to be effective in general. In the following parts, the relationship between resilience and other variables (i.e. mindful self-care, psychological well-being) will be detailed.

2.2.3 Mindful self-care and resilience. According to studies, the components of mindful self-care were significantly associated with resilience. Mindfulness were found to be positively associated with resilience (Zahra & Riaz, 2018; McGuiness, 2020; Pidgeon & Pickett 2017). Beyond these, several studies indicated that mindfulness predicted resilience before and during COVID-19 pandemic among university students in various countries (Mathad, Pradhan & Rajesh, 2017; Pidgeon & Keye, 2013; Bajaj & Pande, 2016; Philippe, Schwab & Biasutti, 2021; Zadok-Gurman et al., 2021).

It was addressed that physical activity promotes resilience of people (Deuster & Silverman, 2013). For instance, Matzka, Mayer, Köck-Hódi, Moses-Passini, Dubey, Jahn, Schneeweiss and Eicher (2016) revealed that there was a positive relationship between physical activity and resilience among cancer patients. More importantly, physical activity predicted the levels of resilience among people (Ozkara, Kalkavan, S. Alemdag & C. Alemdag, 2016; Carriedo, Cecchini, Fernández-Río & Méndez-Giménez, 2020). In contrast, physical activity did not explained a change in the levels of resilience of individuals attending a program during COVID-19 pandemic (Philippe et al., 2021). Nevertheless, there are many studies supported the hypotheses that physical activity have a role in the higher levels of resilience.

According to several studies, there was a significant positive association between self-compassion and resilience of health professionals and university students (Kemper, Mo & Khayat, 2015; McGuiness, 2020). Not surprisingly, self-compassion predicted resilience among university students as well as individuals with multiple sclerosis (Nery-Hurwit, Yun & Ebbeck, 2018; McArthur, Mansfield, Matthew, Zaki, Brand, Andrews & Hazel, 2017). In a current research on therapeutic students, the link between resilience and mental well-being was partially mediated by self-compassion contrarily to other studies which evaluated self-compassion as a predictor variable of resilience mostly (Kotera, Green & Sheffield, 2021). Nonetheless, self-compassion is an important variable for resilience and health of people. In terms of purpose, it was claimed that purpose in life and resilience had a significant positive correlation between each other (Nygren, Aléx, Jonsén, Gustafson, Norberg, Lundman, 2005; Smith, Tooley, Christopher & Kay, 2010).

Social relationships were also found to be explaining the variation on resilience by researchers. Ozbay, Johnson, Dimoulas, Morgan, Charney and Southwick (2008) claimed that social support seems to have a positive role on resilience to stress. To give

an example, there was a positive relationship between resilience and social support among people with substance use disorder (C. Yang, Xia, Han & Liang, 2018). Moreover, resilience was positively predicted by social support (Wilks, 2008; Malkoç & Yalçın, 2015). On the other hand, Egeland, Carlson, and Sroufe (1993) stated that supportive environment is important for the development of resilience as a capacity among people. From an organizational point of view, resilience positively predicted by supportive leadership and co-worker support moderated by high work pressure (Cooke, Wang & Bartram, 2018). Similarly, McGuinness (2020) found a significant correlations between supportive structure and the components of resilience which are sense of mastery, sense of relatedness, and emotional reactivity. These assertions supported the important role of supportive structure on the level of resilience of university students. All in all, the components of mindful self-care were found to explain the variance on resilience in terms of correlation and regression by several researchers.

On the other hand, Mindful Self-Care and Resiliency (MSCR) is an effective program designed and applied for promoting the levels of resilience, well-being, compassion satisfaction, self-compassion, subjective quality of life, self-care, self-awareness, reflection, and decreasing the levels of burnout, depressed mood, psychological strain, negative affect, compassion fatigue, obsessive passion, and stress among general practitioners, rural doctors, nurses, university employees in Australia (Rees, Craige, Slatyer, Heriage, Harvey, Brough & Hegney, 2018; Slatyer, Craige, Heritage, Davis & Rees, 2018a; Hegney et al., 2021; Slatyer, Craige, Rees, Davis, Dolan & Hegney, 2018b; Craigie, Slatyer, Hegney, Osseiran-Moisson, Gentry, Davis, Dolan & Rees, 2016; Rees, Craige, Slatyer, Crawford, Bishop, McPhee & Hegney, 2019).

In sum, there are lots of studies that found a significant relationship between the components of mindful self-care and resilience in the field of psychology.

2.3 Psychological Well-Being: Measurement and Studies

This part comprises the measurement, components, and studies about psychological well-being as well as the relationship between mindful self-care-psychological well-being and resilience-psychological well-being. Lastly, the current study part provides information about the important aspects of this research.

2.3.1 Measurement of psychological well-being. Several measures were developed to assess the level of well-being of individuals from different backgrounds. These are exemplified as PERMA (Butler & Kern, 2016), EPOCH (Kern et al., 2015), The Flourishing Scale (Diener et al., 2010), Psychological Well-Being Scales (Ryff, 1989), Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988), Scales of General Well-Being (SGWB) (Longo, Coyne and Joseph, 2018), Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) (Tennant, Hiller, Fishwick, Platt, Joseph, Weich, Parkinson, Secker & Stewart-Brown, 2017). The 12-Item General Health Questionnaire (GHQ-12) (Goldberg & Hillier, 1979), Bradburn's Affect Balance Scale (Bradburn, 1969), The Well-Star Scale (Korkut-Owen, 2016), Assessment of Quality of Life (AqoL) (Hawthorne, Richardson & Osborne, 1999), Quality of Life Scale (CASP-19) (Hyde, Wiggins, Higgs & Blane, 2003), Perceived Well-Being Scale (Reker & P. T. P. Wong, 1984), Positive Mental Health Scale (PMH-Scale) (Lukat, Margraf, Lutz, van der Veld & Becker, 2016), Short-Form 36 Health Status Questionnaire (SF-36) (Burholt & Nash, 2011), Social Well-Being (Keyes, 1998), Five Factor Wellness Inventory-Teen Version (Myers & Sweeney, 2004), Quality of Well-Being Scale (QWB) (Kaplan, Anderson, Mathews, Kozin & Orenstein, 1989), Spiritual Well-Being Scale (Poloutzian & Ellison, 1982), Subjective Well-Being Scale (Tuzgöl-Dost, 2005), Subjective Happiness Scale (Bradburn, 1969), Teacher Subjective Well-Being Questionnaire (TSWQ) (Fitch, Cadena, Sánchez & Cinco, 2017), Adolescent Subjective Well-Being Scale (Eryılmaz, 2009), and Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsens & Griffin, 1985).

2.3.2 Psychological well-being: its components and studies. Psychological well-being is one of the critical variables to understand the well-being of humankind both during and before COVID-19 pandemic. For this reason, it is widely used and its association with a huge number of variables investigated in the literature. There are also several interventions (i.e. MSCR and Inquiry-Based Stress Reduction Program) developed to promote the health of individuals.

Basically, there was a negative association between the variables related to psychological well-being and psychological distress (Winefield, Gill, Taylor & Pilkington, 2012). At the same time, there was an inverse correlation between depression and anxiety, and psychological well-being which involved autonomy, environmental mastery, personal growth, positive relationship with others, purpose in

life, and self-acceptance among students (Q. Liu, Shono & Kitamura, 2009). In a study of Segrin, Hanzal, Donnerstein, Taylor, and Domschke (2007) conducted among university students, there was a significant positive association between depressive symptoms and perceived stress, and life satisfaction negatively correlated with these two variables.

Keyes (2002b) claimed that personality traits of extraversion and conscientiousness are associated with the higher levels of subjective and psychological well-being, but neuroticism is associated with lower levels of subjective and psychological well-being. At the same time, Kokko, Tolvanen, and Pulkkinen (2013) found variations between Big Five personality traits of people as openness and agreeableness were positively correlated with psychological well-being as well as extraversion.

Demographic variables are critical to investigate psychological well-being of diverse groups. For instance, Keyes (2002b) stated that there was a difference in the scores of well-being in terms of gender, age, educational level, and marital status. In this way, a person who is a man, older adult, educated, and married is more likely to have higher levels of subjective and psychological well-being. Particularly, women with higher femininity, working but not in a manual occupation, and not being a housewife as well as men who have an occupation requiring skills, are in a relationship, and having higher levels of femininity had higher well-being (Matud, López-Curbelo & Fortes, 2019). It is noteworthy that demographic variables may differentiate the levels of well-being among people.

On the other hand, in the case of COVID-19 pandemic, fear of COVID-19 was found to be positively correlated with depression, anxiety, and perceived vulnerability to disease among adults in Iran (Ahorsu, Lin, Saffari, Griffiths & Pakpour, 2020). Similarly, in the adaptation study of CORPD translated into Turkish, it was found that anxiety positively correlated with fear of COVID-19 as well as CORPD anxiety and fear (Ay et al., 2021). In the development of Coronavirus Anxiety Scale (CAS) which is appraised as one of the mental health measures, Lee (2020) found that higher levels of coronavirus anxiety were associated with impaired functioning, alcohol or drug use for coping, hopelessness, negative religious coping, and suicidality, diagnosis of COVID-19 among adults. On the other hand, Cleofas and Rocha (2021) claimed that worries about coronavirus had a significant correlation between age, gender, and SES

of the university students. For these reasons, anxiety related to COVID-19 seems to be associated with the psychological well-being of people.

The components of the PERMA model were also associated with better health outcomes on various studies. For instance, social relationships were related with reduced psychological distress, and loneliness was negatively associated with psychological well-being (Umberson, Chen, House, Hopkins & Slaten, 1996; Borawski, 2019). Engagement was associated with higher levels of psychological well-being among employees (Shuck & Reio, 2013). At the same time, Steger (2018) argued that meaning was positively correlated with positive emotions, health, positive relations with other people, life satisfaction, and happiness in the literature. However, there was a negative relationship between meaning and the following variables: anxiety, negative emotions, depression, hopelessness, stress, suicidality, addiction, and neuroticism. Physical activity, on the other hand, was also beneficial for the health of people since it was claimed to decrease the possibility to have a chronic disease (Miles, 2007). Lastly, a meta-analysis revealed that academic achievement was associated with subjective well-being which may underline the role of accomplishment on psychological well-being (Bücker, Nuraydin, Simonsmeier, Schneider & Luhmann, 2018).

To sum up, psychological well-being was associated with many terms such as personality, demographic variables, life satisfaction, and so on. Diverse interventions exist and are frequently applied to support the well-being of people. Its relationship between mindful self-care and resilience was discussed in the other parts of this thesis.

2.3.3 Mindful self-care and psychological well-being. Nowadays, there is an increasing trend in the research focusing on the relationship between mindful self-care, its components and psychological well-being. Not surprisingly, lots of them revealed a significant relationship between mindfulness-based approaches on self-care and several health measures. In this sense, Cook-Cottone (2015b) underlined the role of mindful self-care on the protection and prevention of the several symptoms of mental disorders.

According to the results of a review study, dispositional mindfulness had an inverse relationship between psychopathologies, and positive association with psychological well-being (Tomlinson, Yousaf, Vittersø & Jones, 2018). In another study, dispositional mindfulness was a moderator on the link between self-care

dimensions (i.e. health, physical activity, nutrition, spirituality, stress management, and interpersonal relations) and psychological distress among medical students (Slonim et al., 2015). More directly, Y. Mehta and Hicks (2018) found that mindfulness and Big Five personality traits was predictors of psychological well-being among adults.

Physical activity and mental well-being were positively correlated with each other in coronavirus period among Turkish adults, and the scores of depression reduced with physical activity (Arslandoğan, Türkmen, Töre, Demir, & Hazar, 2021; Philippe et al., 2021). In a cross-sectional study, protective factors in terms of health were found to be related with higher positive mood, low levels of loneliness, and higher amounts of exercise (Gasteiger, Vedhara, Massey, Jia, Ayling, Chalder, Coupland & Broadbent, 2021). The findings also displayed that higher levels of anxiety were related to smoking and drinking alcohol as well as being young and at risk for COVID-19 were related to the reductions in mental health. Similarly, Sunbul et al. (2018b) manifested that physical care predicted psychological well-being of people.

Previous studies highlighted the necessity of social support to sustain health especially when there is a risk in terms of genetics, development and environment (Ozbay, Fitterling, Charney & Southwick, 2008). In this way, social connectedness was found to be important for the reduced levels of perceived stress and anxiety related to COVID-19 (Nitschke, Forbes, Ali, Cutler, Apps, Lockwood & Lamm, 2020). The subscales of mindful self-care which are supportive relationships and supportive structure predicted flourishing among first-year graduate students (McGuinness, 2020).

It was addressed that higher levels of self-compassion had a positive correlation between higher levels of psychological well-being (Neff et al., 2008; McGuinness, 2020). Also, in a serial mediation model of Deniz (2021), self-compassion was predicted well-being through intolerance of uncertainty and a fear of COVID-19 as well as it predicted happiness among diverse group of people in Turkey. From another perspective, life purpose predicted well-being of adults, and it was a mediator on the link between faith and well-being among college students (Reker et al., 1987; Byron & Miller-Perrin, 2006).

As it was stated before, there are several mindfulness-based interventions aiming to support the levels of psychological well-being of individuals. For instance, as a result of a program called mindfulness-based self-care, there was an improvement in the levels of positive affect, self-compassion of therapists who are in the process of training, and reductions in the levels of stress, negative affect, rumination, and anxiety (Shapiro, Brown & Biegel, 2007). Similarly, as an intervention, MSCR was found to have positive outcomes on well-being (i.e. emotional well-being, new skills, self-care, compassion fatigue, burnout, subjective quality of life, depressed mood, negative affect, obsessive passion, and stress) of nurses, university employees, rural doctors, and general practitioners according to pretest and posttest results (Rees et al., 2020; Rees et al., 2018; Slatyer et al., 2018a; Slatyer et al., 2018b, Craigie et al., 2016; Hegney et al., 2021).

In a study of X. Feng, Mosimah, Sizemore, Goyat, and Dwibedi (2019), increased levels of mindful self-care was a mediator on the link between perceived stress and psychological well-being when the effects of demographic variables (i.e. gender, age, race, marital status, education, income, and chronic illness) were controlled. Unexpectedly, these two variables did not associated with physical well-being in this study conducted on young adults in West Virginia. From another perspective, there was a negative correlation between stress and mindful self-care among undergraduate students in U.S. (Simerly & Blackhart, 2021). It was shown that the research data was collected different time intervals (5 times) in a semester in order to test if predisposition to stress and self-care predicts the levels of stress among students during their exam weeks, and the results supported this hypothesis. Moreover, researchers claimed that it is likely to have additional variables in this relation since the effect size of the relationship between these two were small.

Currently, in a thesis, overall model of mindful self-care predicted flourishing, but among its components, only supportive relationships and supportive structure predicted flourishing among first year college students (McGuinness, 2020). Insignificant prediction of the other dimensions of mindful self-care was unexpected and inconsistent with the previous findings, and this situation was explained with several factors about research design such as the lack of diversity of this sample, and MSCS as a scale searching for the behaviors of past week. More broadly, all dimensions of mindful self-care explained the variance on well-being of university students from mental health fields in Turkey (Sunbul et al., 2018b).

There were also surveys assessed mindful self-care practices of people during COVID-19 pandemic. M. Y. C. Wong (2020) adapted MSCS to Chinese language in coronavirus period. According to their findings, there was a positive correlation between all subscales of MSCS, and overall well-being among Chinese adults. Writers also mentioned that the level of health of the participants were not desirable during COVID-19 period according to their scores. Furthermore, it is worth noting that an intervention focusing on the mindful self-care levels of healthcare professionals was specifically designed to promote well-being of them within these circumstances (Foale, Lombard & Heyns, 2021).

Briefly, mindful self-care and its dimensions were appeared to predict psychological well-being of people both before and during COVID-19.

2.3.4 Resilience and psychological well-being. Previous researchers found a significant predictive relationship between resilience and psychological well-being. In this way, several programs (i.e. MSCR and The Resilience Program) were developed to promote the levels of resilience and health of individuals.

In a survey, resilience was inversely correlated with stress and psychological well-being among Chinese nursing students (Smith & F. Yang, 2017). Souri and Hasanirad's (2011) found that resilience explained variation on psychological well-being, and optimism mediated the relationship between them among students of medicine. In a correlational study among university students in Turkey, social support and coping skills were mediators on the link between resilience and psychological well-being (Malkoç & Yalçın, 2015).

On the other hand, resilience and socioeconomic satisfaction had a predictive role on psychological well-being of retired people (Nalin & França, 2015). Also, Mayordomo, Viguer, Sales, Sattores, and Melendez (2016) revealed that resilience and coping strategies which have the factors of problem-focused coping and emotion-focused coping significantly predicted psychological well-being on adults aged between 35-64. In a thesis, flourishing was predicted by resilience, especially by its components of sense of mastery and sense of relationships, both together and beyond mindful self-care (McGuiness, 2020). There are much more studies demonstrating the predictor role of resilience on psychological well-being worldwide (Neufeld & Malin, 2019; Idris, Khairani & Shamsuddin, 2019; Lane, 2020).

The relationship between these two variables exist in coronavirus pandemic as well. The results of a survey of conducted by Kimhi, Marciano, Eshel, and Adini (2020) in coronavirus period showed that resilience (individual and community), and well-being inversely associated with the symptoms of distress and sense of danger. Moreover, the variables of younger age, lower family income, being a woman, and existence of financial difficulties had positive associations between the symptoms of distress and sense of danger in this study. This means that demographic variables should be considered in the relationship between resilience and psychological well-being. Other researchers found that perceived threat of COVID-19 pandemic negatively predicted mental well-being when future anxiety is a mediator and resilience was moderator during coronavirus period (Paredes, Apaolaza, Fernandez-Robin, Hartmann & Yañez-Martinez, 2020). In other words, increased scores in resilience reduced the effect of perceived COVID-19 threat on future anxiety of people. Last but not least, a survey results manifested that COVID-19 period had more negative impacts on adults with lower levels of resilience in Turkey (Yazıcı-Çelebi, 2020).

Comprehensively, the link between resilience and well-being in terms of prediction was supported by previous studies. In order to understand this association, considering demographic variables such as age, gender, and SES is necessary as well as people's unique experiences in the COVID-19 period.

2.3.5 The current study. Overall, research suggested that mindful self-care with its various dimensions are highly predictive for psychological well-being. While mindful self-care dimensions positively predicted resilience, so one might think that mindful self-care contributes to resilience levels which in turn might improve psychological well-being. However, no study directly examined the relationship between mindful self-care and resilience predicting psychological well-being.

As this research was carried out during the COVID-19 period, it would be very interesting to consider the impact of this public health crisis. Individuals' COVID-19 anxiety levels were examined as a moderator variable in the mediation analysis for exploring its impact on the mentioned mediation pattern. As the current research approached the role of COVID-19 anxiety in an exploratory fashion, results would provide a preliminary insight about its role in the suggested model. Based on all these, research design of this thesis has taken its final form. Additionally, some demographic

variables such as individuals' gender, age, and SES levels might have relationships with the mentioned variables. For this reason, analyses were carried out by taking individuals' demographic characteristics (i.e. gender and age) as a covariate variable.



Chapter 3

Methodology

This chapter includes the methodology of the research by mentioning about the research design, participants and the recruitment of them, data collection instruments, data collection procedure, data analysis procedure, reliability and validity of the measures in this study, and limitations of this study.

3.1 Research Design

This study was a correlational research as the relationship between the three variables of mindful self-care, resilience and psychological well-being were examined without any researcher control or manipulation. Research data obtained from participants at one specific point of time shows that it was a cross-sectional study, and the data obtained from scales analyzed by quantitative methods means that it was a quantitative research.

3.2 Participants

Adults living in Turkey constitute the sample of this study. A priori power analysis using Medpower (Kenny, 2017) was carried out to determine sample size for the mediation hypothesis, following the suggestions of Giner-Sorolla, Aberson, Bostyn, Carpenter, Conrique, Lewis, Montoya, Ng, Reifman, Schoemann, and Soderberg (2019). When 80% power was targeted in order to obtain a small-medium effect size ($r = .19$), it was seen that the number of participants should be at least 109. Based on the previous studies, it was concluded that the number of participants should be at least 85 when 80% power, and medium-large effect size ($r = .48$) are targeted. Considering situations such as data loss in the research, 115 participants were decided to be suitable for this research. It was aimed to reach the participants with convenience sampling method and through a survey link that was shared online.

As an inclusion criteria, any adult living in Turkey and having an access to Internet can participate to this study regardless of variables such as gender, marital status, income level, education level, and occupation. Voluntary participation was necessary, and their names and surnames were not asked to them for protecting their confidentiality and privacy. Exclusion criteria was used for the participants who had missing data in order to obtain clearer results. There was no blank answer since it was

obligatory to answer the questions to complete this research. However, 2 participants who clicked the button of “I don’t approve” at the page of consent form were excluded. In addition, there were three attention check items such as “Please click 4 if you read this sentence” for testing if the participants were reading and answering the questions carefully. As a result, 6 participants who gave incorrect answers to at least one of the attention check items were excluded from this study.

Demographic characteristics of the participants were provided in the Table 1 and Table 2. Overall, the total number of participants was 217 in this study. Due to exclusion criteria, 8 participants were removed, and 209 participants remained. Among them, 33% of them were male and 67% of them were female. The mean age of them was 27.42 ($SD = 9.17$). Half of the participants (50.2%) have bachelor’s degree, while 34% of them have high school degree, and 15.8% have master’s degree or doctoral degree (PhD). 55.5% of them stated that they are working. In terms of marital status, 16.3% were married, 80.4% were single, 1.4% were divorced, and 1.9% were widowed. 86.1% of them had no child. 5.3% of them had dependents to take care of other than their children. In terms of mental and physical health, there were not any chronic illness among 83.3% of the participants, and the percentage was 89% for the ones not having psychological disorder. 79.9% of the respondents indicated that they do not use any medicine. Also, they rated their level of anxiety about COVID-19 between 1 (never) and 10 (always) and how they actively followed the news about COVID-19 between 1 (never) and 5 (always). According to these, the average level of anxiety about COVID-19 was reported as 6.50 ($SD = 2.19$). The average level of actively following COVID-19 news was 3.29 ($SD = 1.12$).

Table 1

Frequency Distribution of the Demographic Characteristics

Characteristic	<i>N</i>	% of total
Gender		
Male	69	33
Female	140	67
Education Level		

Table 1 (cont.d)

High School	71	34
Bachelor's Degree	105	50.2
Master's Degree/PhD.	33	15.8
Working Status		
Yes	116	55.5
No	93	44.4
Marital Status		
Married	34	16.3
Single	168	80.4
Divorced	3	1.4
Widowed	4	1.9
Having a Child		
Yes	29	13.9
No	180	86.1
Number of Children		
0 (no child)	180	86.1
1 child	14	6.7
2 children	11	5.3
3 children	4	1.9
Having Dependent/s		
Yes	11	5.3
No	198	94.7
Chronic Illness		
Yes	35	16.7

Table 1 (cont.d)

No	174	83.3
Using Medicine		
Yes	42	20.1
No	167	79.9
Psychological Disorder		
Yes	23	11
No	186	89

Note. N = sample size

Table 2

Descriptive Statistics of the Demographic Characteristics

Characteristic	<i>M</i>	<i>SD</i>	Median	Min.	Max.
Age	27.42	9.17	25	18	71
COVID-19 Anxiety	6.50	2.19	7	1	10
Following COVID-19 News	3.29	1.12	3	1	5

Note. *M* = Mean, *SD* = Standard Deviation, Min. = Minimum, Max. = Maximum, 1 = Never, 10 = Always, 1 = Never, 5 = Always

3.3 Procedures

Procedures consists of four main parts which are data collection instruments, data collection procedures, data analysis procedures, and reliability and validity of the scales in this study.

3.3.1 Data collection instruments. This section includes information about the scales that were used to collect data in this study that are Demographic questionnaire, Mindful Self-Care Scale, Brief Resilience Scale, and PERMA-Profiler.

3.3.1.1 Demographic questionnaire. This questionnaire was prepared by the researcher to obtain personal information of the participants. The questionnaire contains the questions about the individuals' age, gender, educational status, employment status, occupation, marital status, whether they have children and, if any, the number of children, whether they have a dependent person other than the child, whether they have a chronic illness and, if any, what their chronic illness is, if they have a psychological disorder, and, if any, what their psychological disorder is, whether they use medication and, if any, the name of it, the level of anxiety about COVID-19 with a 5-point Likert scale, and the frequency of following the news about COVID-19 pandemic with a 10-point Likert scale. A sample of the form is available in Appendix B.

3.3.1.2 Mindful Self-Care Scale (MSCS). MSCS was designed to measure the frequency of self-care behaviors of individuals in the last 7 days (Cook-Cottone & Guyker, 2018). There are six sub-dimensions of it which are physical care, supportive relationships, mindful awareness, self-compassion and purpose, mindful relaxation, and supportive structure. MSCS is a 5-point Likert scale having 33 items. Evaluation of the items in this scale ranges from 1 to 5, and 1 means never and 5 means regular in terms of engaging in self-care behaviors. Only one item on the scale is scored inversely which is "I did sedentary activities instead of exercising". A subscale score of MSCS is obtained by summing the scores of the subscale, and then, the average score is counted for each subscale. The total score is obtained through the sum of the mean scores of each subscale except three general items. If the scores are high, it means there are more mindful self-care behaviors. In the latest version of MSCS, there are 3 additional items called general items which measure the variety of self-care activities, planning of them, and exploration of new ways to do these activities. These items were not added in this study since they can not be averaged, and not visible in the Turkish version of MSCS.

Cook-Cottone and Guyker (2018) developed and validated this scale among adults over 18 who are mostly university and graduate students. Internal consistency value of the original version of the scale was found to be .89 totally, and this value ranged from .69 to .92 for the subscales. MSCS demonstrated construct validity as Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA) revealed the six factor structure, and it had a significant positive correlation with body esteem

and negative correlation with eating disorder risk. Hotchkiss and Cook-Cottone (2019) did a replication study that showed the validation of MSCS among hospice and healthcare professionals with acceptable levels of validity and reliability. Archer (2020) conducted another validation research of MSCS among men and women during emerging adulthood, and it had also respectable validity and reliability values. These support the possible use of MSCS in various people and contexts.

For this study, the Turkish version of MSCS was used. Sunbul et al. (2018a) made an adaptation and validation study for MSCS with university students in Turkey. CFA showed that there are six factors in the Turkish version of this scale as it was in the original version of it. Convergent validity is assessed through the investigating the correlation between MSCS and Mindful Attention Awareness Scale-Adolescent version. As a result, they found a significant positive correlation between these scales ($r = .27, p < 0.01$). Cronbach's alpha value of the Turkish version of this scale was found to be .89 in total which is consistent with the original version if it. The minimum alpha value was .66, and the maximum alpha value was .83 for the subscales. These analyses revealed the reliability and validity of the Turkish version of MSCS.

3.3.1.3 Brief Resilience Scale (BRS). BRS is a self-report measure of the level of resilience of people by focusing on their ability to bounce back and recover from stress (Smith et al., 2008). It is a 5-point Likert scale having 6 items totally. Scoring of the scale for item are in the following: 1 means strongly disagree, 2 means disagree, 3 means neutral, 4 means agree and 5 means strongly agree. Item number 1, 3 and 5 have positive words, and item number 2, 4 and 6 have negative words. The negative items are reversely coded, and the mean of these items is calculated to have a score of BRS. Higher overall score means higher levels of resilience.

It was developed among undergraduate students, and heart and fibromyalgia patients by conducting four different studies. The internal consistency values of the original version of this scale were between .80 and .91 among four samples. Principal Component Analysis (PCA) revealed that this scale has a one factor structure. Test-retest reliability was .69 and .62 for Sample 2 and Sample 3. Convergent validity and discriminant validity of BRS was assessed through different scales and questionnaires measuring resilience related outcomes (Connor-Davidson Resilience Scale and Ego Resiliency Scale), personal characteristics (Life Orientation Test-Revised, Purpose in Life, Toronto Alexithymia Scale, and Type D Personality), coping styles (Brief Cope),

social relationships (Interpersonal Support Evaluation, MOS Social Support Survey and Negative Social Interactions) and health-related outcomes (Brief Health-Related Measures, Hospital Anxiety and Depression Scale, Mental Health Inventory, Mood Adjective Checklist, Physical Symptoms Index, Perceived Stress Scale and Positive and Negative Affect Schedule). As expected, BRS had statistically significant relationships between these variables. These analyses revealed that BRS was a valid and reliable measure.

Turkish version of this scale was used for the research which had .83 Cronbach's alpha value (Doğan, 2015). Adaptation study of this scale was done among university students in Turkey. This scale had a positive correlation between Oxford Happiness Questionnaire, Ego Strength Scale, and Connor Davidson Resilience Scale indicating criterion related validity of it. EFA and CFA showed that this scale had one factor structure which is the same with the original version of it. This was found to be reliable and valid tool to measure resilience within Turkish sample.

3.3.1.4 PERMA-Profiler. PERMA-Profiler is a tool to measure the level of psychological well-being of people in terms of different psychosocial domains in accordance with the PERMA theory of Seligman (Butler & Kern, 2016). It has five subscales which are positive emotion (p), engagement I, relationships I, meaning (m), and accomplishment (a) as it has the components of both hedonic and eudaimonic well-being. It consists of 23 items, and was designed to be 11-point Likert scale. The rating of these items ranges from 0 to 10. Marking 0 means never, not at all or terrible while 10 means always, completely or excellent. There is a reverse coding for the items of 7, 12, 14 and 20. It measures 15 items in total with 3 items in all 5 sub-dimensions. In subsequent studies, 8 more items were added to measure negative emotion (n), physical health (h), overall well-being and loneliness. Negative emotion subscale contains three items which assess the levels of sadness, anxiety and anger. Physical health is assessed with three items by considering individuals' self-perception of their health. One of the remaining questions assess the overall well-being by asking the level of happiness, and one of them assess the level of loneliness. The scores of PERMA-Profiler are evaluated through taking the average scores of subscales within themselves. While determining the overall well-being score, the 15 items of main subscales, and the well-being item are evaluated together. In accordance with the researchers' suggestions, the total score of the PERMA-Profiler was calculated based

on the overall well-being scores in this study. The report of the results is visually designed to delineate profiles. This dashboard includes negative emotion and physical health scores in addition of the scores of the five subscales.

In the work of scale development, the first version of the scale was tested among three samples, and the final version of the scale was given to eight different samples including diverse populations. The original version of PERMA-Profiler had high values for Cronbach's alpha totally as it ranged from .92 to .95. The value of positive emotion ranged from .71 to .89, engagement ranged from .60 to .81, relationships ranged from .75 to .85, meaning ranged from .85 to .92, accomplishment ranged from .70 to .86, overall well-being ranged from .92 to .95, negative emotion ranged from .70 to .77, and health ranged from .85 to .92. The correlation coefficients of different samples revealed that this scale had test-retest reliability. PCA and CFA were conducted to obtain the five main factors of the scale. Divergent and convergent validity of the measure was evaluated through the analysis of the correlation between all the subscales of this scale, and various variables such as life satisfaction, depression, and flourishing. The results were in an expected manner and suggested that PERMA-Profiler is a valid and reliable measure.

Demirci et al. (2017) made an adaptation study of this scale among university students in Turkey. CFA conducted for 5 main subscales and it provided a result that supported its 5-factor structure. They calculated the internal consistency of the Turkish version of this scale as having a high reliability ($\alpha = .91$). The values among subscales were .81 for positive emotion, .61 for engagement, .61 for relationships, .77 for meaning, .70 for accomplishment, .61 for negative emotion, and .79 for health. Test-retest reliability was also assessed, and the total test-retest reliability score was .83. This value ranged from .61 to .85 for the subscales. This scale displayed criterion-related as it was positively correlated with the satisfaction with life scale and subjective happiness scale. Overall, the analyses revealed the reliability and validity of the Turkish version of PERMA-Profiler.

3.3.2 Data collection procedures. Before collecting any research data, all aspects of this research has been approved, and found to be suitable with the ethical standards by Board of Scientific Research and Publication Ethics of Bahçeşehir University at 10.02.2021. Preregistration of the research was done by the researcher at 28.02.2021 (OSF; Varan, 2021). After receiving the approval and preregistration, the

participants of this study were reached via online platforms, and shared with a survey link designed in Google Documents. It took an average of 10 minutes to fill out the forms. Participants were asked to indicate their answers by marking the appropriate option in the items or by writing in the blank below the items. Answering the questions and/or items in all parts of the form was obligatory, and no question could be left blank in order to finish the study.

At the first page of the link, there was a Consent Form (see Appendix A) by briefly mentioning about the type, aim, duration of the study without revealing the hypotheses, contribution of this study to science, the possible effect of this study to the participants, the information about voluntary participation and their right to quit from this study at any time, how research data will be used with a norm of confidentiality, and the e-mail address of the researcher. Participants who voluntarily took part in this study clicked the button of “I approve” or “I don’t approve” at the first page of consent form. After that, Demographic Questionnaire, Mindful Self-Care Scale, Brief Resilience Scale, and PERMA-Profiler were completed by the participants in this order. After completing the form, participants were faced with a page containing the sentences of “your response has been saved” and “submit another reply”. Research participants could not return to the previous pages. The research data were collected between March and August 2021.

3.3.3 Data analysis procedures. Before data collection, power analysis was done to detect adequate sample size by using Medpower (Kenny, 2017). Also, the main hypotheses of this study were preregistered and available on OSF; Varan (2021). After data collection, research data was downloaded from Google Documents to Excel and exported to Statistical Package for Social Sciences (SPSS) 22.0. Variables were named, data were numbered, and necessary coding was done. Datasets and materials are available on the OSF page as well. According to the exclusion criteria, the data of those who have wrong answers to the attention check items and clicked the button of “I don’t approve” on the consent page were excluded. Subscale and total scores of the scales were calculated in order to make the necessary measurements. For deciding the normal distribution of the research variables, descriptive statistics, tests of normality, and graphics of each variable were examined in considering their total scores. The Z scores of the scales were calculated for the detection of outliers, but outliers were not excluded. In general, the values of skewness and kurtosis ranged from -1.50 to + 1.50

which was found to be acceptable for the assumption of normal distribution (George & Mallery, 2010). In graphs, the data of the three scales seemed to close to normal distribution with some deviations. However, normality tests were significant for three of the scales. Then, the normality of residuals were checked as an assumption for regression analysis, and this analysis demonstrated that linear regression analysis can be done.

After that, the frequency distribution and descriptive statistics of the demographic data were performed in order to understand respondents' characteristics. The reliability and validity scores of the predictor and outcome variables were calculated. For the reliability analysis, internal consistency values were examined both for scale and subscales. CFA was conducted for the main variables in order to test construct validity of them in Jamovi 26.0. Then, descriptive statistics of the main research variables were checked and reported. In order to understand the relationship between predictor and outcome variables, correlation coefficients were analyzed and reported. In another step, hierarchical linear regression analysis and multiple linear regression analysis were performed to test the first and second hypotheses of this study by controlling the effects of gender and age. In order to test the third hypothesis of this study, Hayes Process v4.0 mediation analysis was performed for observing the assumed simple mediation model by controlling gender and age. In order to observe the consistency of the results, reverse mediation analysis was carried out only by changing the place of the variables of mindful self-care and resilience in the model.

In addition to these results, since all of the models were significant, exploratory analysis was conducted to investigate the moderator role of the level of COVID-19 anxiety on the hypothesized mediation model suggested in this thesis by controlling gender and age.

3.3.4 Reliability and validity. The validity of the instruments in this research was assessed through CFA by considering the values of Chi-square divided by degrees of freedom (χ^2/df), Tucker-Levis Index (TLI), Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA) which can be seen in the Table 3. Savci and Griffiths (2019) stated that ≤ 5 is acceptable and ≤ 3 considered to be perfect fit for the value of χ^2/df . As it was suggested by Bentler and Bonett (1980), there is an acceptable fit if TLI is $> .90$. On the other hand, A. Wong and Carlbäck (2018) stated that TLI between .80 and

.90 shows mediocre fit. It is similar for the CFI as $> .90$ indicates good, and the value between .80 and .90 indicates adequate fit (Bentler, 1990). To achieve an acceptable fit, SRMR value should be $\leq .08$ (Kline, 2011). It was reported that RMSEA has a good fit if it is ≤ 0.05 . Also, ≤ 0.08 can also be considered as a good fit although there are errors (Pedroso et al., 2016).

According to the results of CFA, the values of χ^2/df (2.59), CFI (.75), TLI (.73), SRMR (.09) and RMSEA (.08) indicate that MSCS was close to have an acceptable fit in this research. This analysis was also performed for BRS, and it almost had an acceptable fit as χ^2/df was 7.52, CFI was .89, TLI was .81, SRMR was .06, and RMSEA was .17. CFA was performed for the five-factor model of PERMA-Profiler, and it displayed a very good fit ($\chi^2/df = 2.76$, CFI = .92, TLI = .90, SRMR = .04, RMSEA = .09).

Table 3

Goodness of Fit Measures

Scale	χ^2	df	χ^2/df	CFI	TLI	SRMR	RMSEA
MSCS	1247	480	2.59	.75	.73	.09	.08
BRS	67.7	9	7.52	.89	.81	.06	.17
PERMA- Profiler	221	80	2.76	.92	.90	.04	.09

Note. χ^2 = Chi-Square, df = Degrees of Freedom, χ^2/df = Chi-Square/ Degrees of Freedom, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index, SRMR= Standardized Root Mean Square Residual, RMSEA = Root Mean Square Error of Approximation, MSCS = Mindful Self-Care Scale, BRS = Brief Resilience Scale, PERMA = Positive Emotion, Engagement, Relationships, Meaning, Accomplishment

In this research, reliability of the data collection instruments were examined by observing internal consistency values of the data (see Table 4). According to Taber (2018), Cronbach's alpha values over .70 are accepted to be good. Kılıç (2016) stated that there are also studies claiming that the values between .60 and .70 are acceptable.

As a result, the alpha value of the Turkish version of MSCS was found to be .90 totally in this study. The values of the subscales which are physical care, supportive

relationships, mindful awareness, self-compassion and purpose, mindful relaxation, and supportive structure were in the following order: .74, .85, .84, .77, .68, and .77. Internal consistency value for the Turkish version of BRS was found to be acceptable ($\alpha = .85$). PERMA-Profiler had a Cronbach's alpha value of .94 in total. The alpha values were .87, .61, .78, .83, .77, .85, .79, and .94 for the subscales of positive emotion, engagement, relationships, meaning, accomplishment, health, negative emotion, and overall well-being. Therefore, the measures in this scale were found to be highly reliable which is consistent with their original and Turkish versions.

Table 4

Internal Consistencies

Scale	Cronbach's α
MSCS Total	.90
Physical Care	.74
Supportive Relationships	.85
Mindful Awareness	.84
Self-Compassion and Purpose	.77
Mindful Relaxation	.68
Supportive Structure	.77
BRS Total	.85
PERMA-Profiler	.94
Positive Emotion	.87
Engagement	.61
Relationships	.78
Meaning	.83
Accomplishment	.77
Health	.85

Table 4 (cont.d)

Negative Emotion	.79
Overall Well-Being	.94

Note. MSCS = Mindful Self-Care Scale, BRS = Brief Resilience Scale, PERMA = Positive Emotion, Engagement, Relationships, Meaning, Accomplishment.

3.4 Limitations

Although this research has several good aspects to fill the gap in the literature, there are some possible limitations of this study. These limitations were mentioned in terms of research design, sample characteristics, data collection instruments, reliability, and validity analysis below.

First of all, due to the nature of cross-sectional study, the research data was collected in a single period of time. As there was a time constraint, it was not possible to obtain data from the same people at different times in order to compare the results, and changes among them if there will be any. Also, since it was a correlational study, it is only possible to make inferences about predictions, and it was not possible to talk about cause-effect relationships. Additionally, convenience sampling method was used to select participants. It may cause underrepresentation or overrepresentation of some populations, and therefore, it may create biased results. This situation may limit the generalizability of the findings as well. In a parallel way, there was a lack of researcher control due to the collection of data on Internet. It was not possible to know who gave the answers, if they gave correct answers, and so on. These kind of uncontrolled factors and/or extraneous variables may cause a threat to internal validity of this study. Moreover, the fact that only people having an access to Internet completed this research may not provide a representative sample. However, it should be noted that this research was appropriate to the practices of OSF, designed to have a high power, and the sample was not from white, educated, industrialized, rich, and democratic (WEIRD) sample.

Data collection instruments in this study were all self-report, and it was difficult to understand if the participants answered the questions correctly, and also, it cannot be known that respondents had enough introspective ability to evaluate themselves accordingly. For example, they might have had social desirability bias that made them

to give answers by reporting desirable behaviors mostly. On the other hand, despite having some negative items, there were mostly positive items in the three scales. This might have intensified the possibility of response bias such as self-serving bias, extreme responding, and/or acquiescence bias. There were also some issues the way items were shared with the respondents. Few of the participants reached the researcher, and stated that it was boring for them to answer all items, since it was obligatory to answer all the demographic questions in this study. For this reason, it would be good to make some questions on demographic form not obligatory to answer.

Mistakenly, PERMA-Profiler was rated from 10-point Likert scale. It would be more appropriate if participants would complete it with 11-point Likert scale as it was in the original version of it. Another mistake in data entry part was not adding socioeconomic status (SES) to Demographic Questionnaire. In fact, SES seems to be an important variable that should be included when examining self-care behaviors. At the same time, MSCS assesses self-care based on the behaviors done in the past week. In here, it is necessary to note that recall bias can be a critical issue since people may not remember their mindful self-care behaviors for the last week. Additionally, due to COVID-19 pandemic, it was possible that they did not spend much time with the closed ones, or they spent extra time on mindful self-care to protect themselves from illness. Considering these, it may not be possible to talk about an overall MSCS score based on the behaviors on last week. Overall, collecting this data during coronavirus period may not yield general and realist results for the level of mindful self-care behaviors, resilience, and well-being of individuals.

Although the number of participants was sufficient for the targeted power, lack of variation in the demographic characteristics of respondents within this sample may limit the representativeness and generalizability of the findings. Most of the participants were women, and education level of participants was bachelor's degree or higher. This means that the sample had a more homogeneous profile, and this can be considered as a threat to external validity. From another perspective, there was no such thing as giving a prize to the respondents for their participation, and this may cause fewer people might have completed this study.

According to normality tests, the data of this research was normally distributed, but it was not a perfect normal distribution. Also, two of the scales (i.e. MSCS and BRS) had some variations to reach very good fit in CFA. Another important thing about the instruments is that reliability scores of some sub-dimensions of Turkish

version of PERMA-Profiler (i.e. engagement, relationships, and negative emotion) were .61 which were actually not good. In this research, these values were .61 for engagement, .78 for relationships, and .79 for negative emotion. Since overall well-being was used in this study ($\alpha = .94$), it would not seem like much of a problem. Nevertheless, it could be taken into account when interpreting research data. On the other hand, it was shown that all of the Turkish versions of the measures were adapted among university students in Turkey. In spite of the fact that most of the participants had bachelor's degree or more in this study, there were high school graduates as well. To be more specific, it should be kept in mind that this was the first time MSCS has been applied to a more diverse population in Turkey, and not only having university students might be the reason why there was no very good fit of the scales in CFA.

Chapter 4

Findings

Findings part incorporates descriptive statistics, correlation coefficients, hierarchical linear regression analysis, multiple linear regression analysis, mediation analysis, reverse mediation analysis, and moderated mediation analysis by considering the variables of mindful self-care, resilience, psychological well-being, gender, age, and the level of COVID-19 anxiety. Primarily, the main hypotheses of this study that were preregistered as well as datasets and materials are available in the website of OSF; Varan (2021).

4.1 Descriptive Statistics

Table 5 displays the means, standard deviations, minimum and maximum scores of the scales of MSCS, BRS, and PERMA-Profiler. Total MSCS score was calculated by taking the average scores of each of the six subscales, and then calculating the sum of them. The average score of total MSCS was $M = 20.5$ ($SD = 3.73$). Overall score of BRS was calculated by summing of the all scores and dividing them to six. The mean score of BRS was $M = 3.21$ ($SD = .88$). Total score of PERMA-Profiler was obtained by calculating overall well-being scores as suggested by the researchers. Therefore, all items in five main subscales, and one happiness item were summed and divided to sixteen. As a result, PERMA-Profiler had an average score of $M = 7.30$ ($SD = 1.42$).

Table 5

Mean, SD, Min., and Max. Values of MSC, Resilience, and PWB

Variable	<i>M</i>	<i>SD</i>	Min.	Max.
MSC	20.5	3.73	7.37	29.5
Resilience	3.21	.88	1.00	5.00
PWB	7.30	1.42	1.56	10.0

Note. *M* = Mean, *SD* = Standard Deviation, Min. = Minimum, Max. = Maximum, MSC = Mindful Self-Care, PWB = Psychological Well-Being

4.2 Correlation Analysis

As summarized in the Table 6, correlation coefficients were calculated to examine the link between the predictor variables which are mindful self-care and resilience, and the outcome variable which is psychological well-being in this research. Moreover, the variables of the level of COVID-19 anxiety and the level of actively following COVID-19 news were added to this analysis. As suggested by Dancey and Reidy (2007), correlations between 0 and .30 are weak, between .40 and .60 are moderate, and .70 and .90 are strong. In this study, there was a significant positive correlation among mindful self-care, resilience, and psychological well-being. Especially, there was a strong, positive correlation between mindful self-care and psychological well-being ($r = .71, p < 0.1$). The positive correlation between mindful self-care and resilience ($r = .27, p < .01$) as well as resilience and psychological well-being ($r = .35, p < .01$) was weak to moderate and significant. In addition, there was a significant moderate, positive relation between the level of COVID-19 anxiety and the level of actively following COVID-19 news ($r = .51, p < .01$). Moreover, the negative correlation between the level of COVID-19 anxiety and resilience was weak and significant ($r = -.21, p < .01$). However, the level of COVID-19 anxiety did not significantly correlate with mindful self-care ($r = .03, p > .05$) and psychological well-being ($r = -.04, p > .05$).

Table 6

Pearson Correlations Between MSC, Resilience, PWB, the Level of COVID-19 Anxiety, and the Level of Actively Following COVID-19 News

Variable	MSC	Resilience	PWB	COVID-19 Anxiety	Following COVID-19 News
MSC	-				
Resilience	.27**	-			
PWB	.71**	.35**	-		
COVID-19 Anxiety	.03	-.21**	-.04	-	

Table 6 (cont.d)

Following COVID-19 News	.04	-.12	.03	.51**	-
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Note. * $p < .05$, ** $p < .01$, MSC = Mindful Self-Care, PWB = Psychological Well-Being

4.3 Linear Regression Analysis

In order to test the first and second hypothesis of this study, hierarchical linear regression analyses and multiple linear regression analysis were conducted. Before these analyses, the main assumptions of regression analysis were carried out for evaluating sample size, normality of residuals, independence of errors, homoscedasticity, multicollinearity, and the linear relationship between predictor variables and outcome variable. As suggested by Schmidt and Finan (2017), there is no huge effect of violations of normality assumption on the results when there is a large sample size such as more than 10 observations for each variable. According to this, having sample size of 209 was suitable for not focusing on small deviations of normality.

The assumptions of normality of residuals, homoscedasticity, and independence of errors were checked by observing the Durbin–Watson test as well as scatterplot which shows the relationship between standardized predicted values and standardized residuals of mindful self-care, resilience and psychological well-being (see Figure 4). According to the findings, Durbin-Watson value was in an acceptable range which was 1.65 (Durbin & Watson, 1950). In addition to this, residuals are expected to be between -3 and +3 (Everitt & Skrondal, 2010). Similarly, the scatterplot displays that there were no values out of -3 and +3 in general. In accordance with these, the assumptions of normality of residuals, homoscedasticity, and independence of errors were supported. The assumption of multicollinearity was tested by examining the correlation between the predictor variables, and the Variance Inflation Factor (VIF) and tolerance statistics of them. Johnston, Johns, and Manley (2017) reported that $VIF \geq 2.5$ shows collinearity. Tolerance score equal or higher than .10 was indicated to be acceptable (Tabachnick & Fidell, 2001).

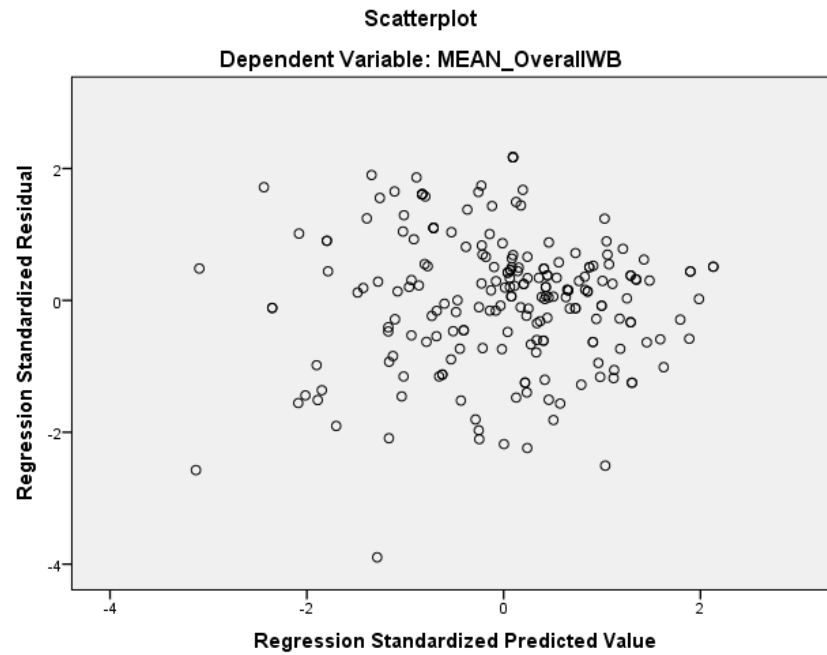


Figure 4. Scatterplot of standardized predicted values and standardized residuals of MSC, resilience, and PWB

As Table 7 shows, VIF and tolerance scores of the predictor variables were in an acceptable range and indicated no multicollinearity between mindful self-care (tolerance = .92, VIF = 1.08) and resilience (tolerance = .92, VIF = 1.08). Besides, in the previous section, correlation coefficients manifested that there was a low correlation between mindful self-care and resilience indicates no multicollinearity ($r = .27, p < .01$). Last but not least, the relationship between these predictor variables and outcome variable can be considered as linear since the points almost follow the same line on the Normal P-P Plot of Regression Standardized Residual (see Figure 5).

Table 7

VIF and Tolerance Values of Predictor Variables of MSC and Resilience

Predictor Variable	Tolerance	VIF
Mindful Self-Care	.92	1.08
Resilience	.92	1.08

Note. VIF = Variance Inflation Factor

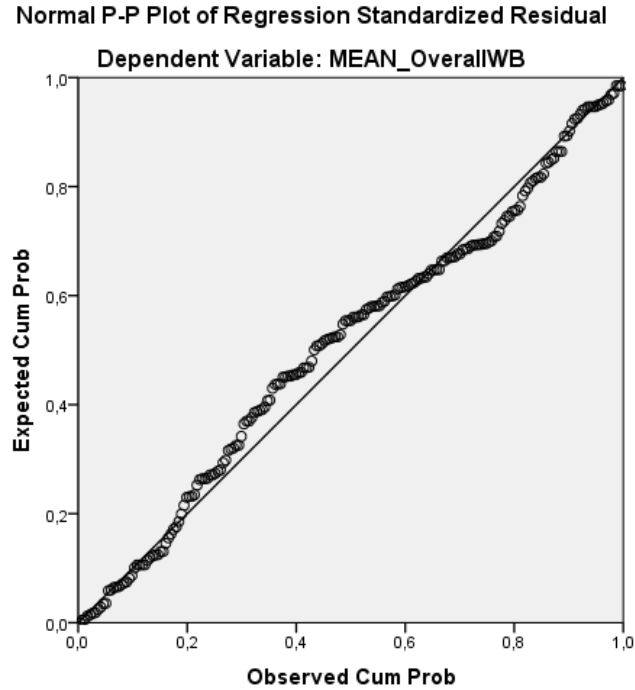


Figure 5. Normal P-P plot of regression standardized residual of MSC, resilience, and PWB

Consequently, these assumptions provided the condition for conducting regression analysis.

In the first hypothesis, it was claimed that mindful self-care behaviors positively predict resilience and psychological well-being. In order to test this, hierarchical linear regression analysis was conducted separately for investigating the predictive relationship between mindful self-care and resilience as well as mindful self-care and psychological well-being when the effects of gender and age were controlled (see Table 8).

The first part of Hypothesis 1 which indicates that mindful self-care positively predicts resilience was tested. According to the table, when controlling gender and age, the findings of Model 1 and Model 2 demonstrated that R^2 changed from .07 to .14, and both of the models were significant, $F(2, 206) = 7.69, p < .01$; $F(3, 205) = 11.52, p < .01$. Particularly, gender significantly predicted resilience in Model 1 and Model 2, $B = .43, SE = .12, p < .01$; $B = .46, SE = .12, p < .01$. In both of the models, age did not significantly predict resilience, $B = .01, SE = .006, p > .05$; $B = .007, SE = .006, p > .05$. As expected, mindful self-care significantly predicted resilience in Model 2, B

= .06, SE = .01, $p < .01$. In sum, mindful self-care had a significant role on resilience when gender and age were controlled.

The second part of the first hypothesis which indicates that mindful self-care positively predicts psychological well-being was also tested. When controlling gender and age, the results of Model 1 and Model 2 displayed that R^2 changed from .06 to .53, and the two models were significant, $F(2, 206) = 7.56, p < .01$; $F(3, 205) = 77.12, p < .01$. Specifically, gender did not significantly predict psychological well-being in Model 1 and Model 2, $B = .12, SE = .20, p > .05$; $B = .25, SE = .14, p > .05$. Both of the models revealed that age significantly predicted psychological well-being, $B = .04, SE = .01, p < .01$; $B = .01, SE = .008, p < .05$. As expected, mindful self-care significantly predicted psychological well-being in Model 2, $B = .26, SE = .01, p < .01$. These all mean that mindful self-care had a significant role on psychological well-being when gender and age were controlled. Therefore, the hypothesis of mindful self-care behaviors positively predicts resilience and psychological well-being was supported.

In Hypothesis 2, it was claimed that resilience positively predicts the level of psychological well-being. In order to test this, a hierarchical linear regression analysis was performed. Table 9 summarizes that when gender and age were controlled, the results of Model 1 and Model 2 demonstrated that R^2 changed from .06 to .17, and these models were significant, $F(2, 206) = 7.56, p < .01$; $F(3, 205) = 14.45, p < .01$. To be more specific, gender did not significantly predict psychological well-being in Model 1 and Model 2, $B = .12, SE = .20, p > .05$; $B = -.11, SE = .19, p > .05$. Age significantly predicted psychological well-being in these two models, $B = .04, SE = .01, p < .01$; $B = .03, SE = .01, p < .01$. Expectedly, resilience significantly predicted psychological well-being in Model 2, $B = .54, SE = .10, p < .01$. As a consequence, the hypothesis of resilience positively predicts psychological well-being was supported.

Lastly, Table 10 displays the roles of mindful self-care and resilience on psychological well-being which were assessed together by multiple linear regression analysis. As a result, mindful self-care and resilience explained .53 variance in psychological well-being together, $F(2, 206) = 118.78, p < .01$. When gender and age were added to the model, .55 of psychological well-being was explained by mindful self-care, resilience, gender, and age all together, $F(4, 204) = 62.20, p < .01$.

Table 8

MSC Predicts Resilience and PWB When Gender and Age were Controlled

Predictor Variable	B	SE	β	R^2	ΔR^2	F	t	P
Model 1 (outcome: resilience)				.07	.07	7.69		
Gender	.43	.12	.23				3.44	.00**
Age	.01	.006	.13				1.95	.053
Model 2 (outcome: resilience)				.14	.07	11.52		
Gender	.46	.12	.24				3.84	.00**
Age	.007	.006	.07				1.16	.24
Mindful Self-Care	.06	.01	.27				4.23	.00**
Model 1 (outcome: PWB)				.06	.06	7.56		
Gender	.12	.20	.04				.60	.54
Age	.04	.01	.25				3.85	.00**
Model 2 (outcome: PWB)				.53	.46	77.12		
Gender	.25	.14	.08				1.74	.08
Age	.01	.008	.12				2.55	.01*
Mindful Self-Care	.26	.01	.69				14.19	.00**

Note. MSC = Mindful Self-Care, PWB = Psychological Well-Being, B = Unstandardized beta, SE = Standard Error, β = Beta coefficient, R^2 = R-square, ΔR^2 = R-square change, F = F-statistic, t = t-statistic, * $p < .05$, ** $p < 0.01$

Table 9

Resilience Predicts PWB When Gender and Age were Controlled

Predictor Variable	B	SE	β	R^2	ΔR^2	F	t	p
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Table 9 (cont.d)

Model 1 (outcome: PWB)				.06	.06	7.56		
Gender	.12	.20	.04				.60	.54
Age	.04	.01	.25				3.85	.00**
Model 2 (outcome: PWB)				.17	.10	14.45		
Gender	-.11	.19	-.03				-.57	.56
Age	.03	.01	.21				3.35	.00**
Resilience	.54	.10	.33				5.13	.00**

Note. PWB = Psychological Well-Being, B = Unstandardized beta, SE = Standard Error, β = Beta coefficient, R^2 = R-square, ΔR^2 = R-square change, F = F-statistic, t = t-statistic, * $p < .05$, ** $p < .01$

Table 10

MSC, Resilience, Gender, and Age Predict PWB

Predictor Variable	B	SE	B	R^2	F	t	p
MSC and Resilience → PWB				.53	118.78		
Mindful Self-Care	.25	.01	.66			13.46	.00**
Resilience	.27	.07	.17			3.46	.00**
MSC, Resilience, Gender, and Age → PWB				.55	62.20		
Mindful Self-Care	.24	.01	.65			13.03	.00**
Resilience	.24	.08	.15			2.95	.00**
Gender	.14	.14	.04			.95	.34
Age	.01	.007	.11			2.34	.02*

Table 10 (cont.d)

Note. B = MSC = Mindful Self-Care, PWB = Psychological Well-Being, B = Unstandardized beta, SE = Standard Error, β = Beta coefficient, R^2 = R-square, F = F-statistic, t = t-statistic, * $p < .05$, ** $p < .01$

4.4 Mediation Analysis

Hypothesis 3 was resilience mediates the relationship between mindful self-care and psychological well-being. For testing this, Model 4 of the mediation was used, and Hayes Process v4.0 mediation analysis was performed (Hayes, 2013). The assumptions of mediation analysis were same with the previous regression analyses. Also, previous hierarchical and multiple linear regression analyses displayed the positively predictive relationship between mindful self-care-resilience, mindful self-care-psychological well-being, and resilience-psychological well-being when controlling the impacts of gender and age. In a parallel way, multiple linear regression analysis manifested the positively predictive role of mindful self-care, resilience, gender, and age on psychological well-being. In this way, Figure 6 illustrates the mediation model for explaining the link between mindful self-care and psychological well-being via resilience. Bootstrapping approach was used in the mediation analyses of this paper.

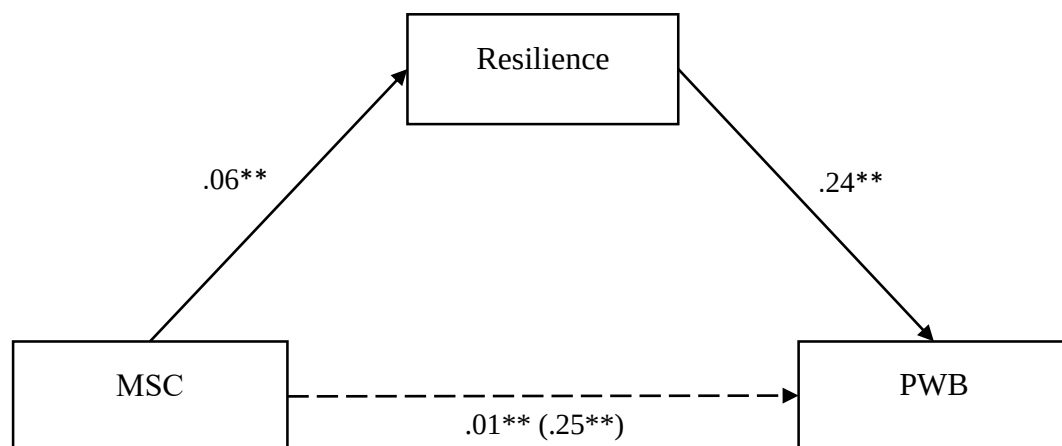


Figure 6. Diagram of simple mediation analysis

Note. The value in parentheses indicated β , where mindful self-care alone positively predicted psychological well-being. The value outside the brackets indicated the predictive coefficient via resilience, ** $p < .01$.

Table 11

Mediator Role of Resilience on the Relationship Between MSC and PWB When Gender and Age were Controlled

Path	<i>B</i>	<i>SE</i>	95% CI		<i>t</i>	<i>p</i>
			L	U		
MSC → Resilience	.06	.01	.03	.09	4.23	.00**
Gender → Resilience	.46	.12	.22	.70	3.48	.00**
Age → Resilience	.007	.006	-.005	.01	1.16	.24
Resilience → PWB	.24	.08	2.95	.07	.40	.00**
Gender → PWB	.13	.14	-.14	.42	.95	.34
Age → PWB	.01	.007	.002	.03	2.34	.01*
Total Effect (MSC on PWB)	.26	.01	.22	.30	14.19	.00**
Direct Effect (MSC on PWB)	.24	.01	.21	.28	13.03	.00**
Indirect Effect (MSC on PWB)	.01	.00	.003	.03	-	-

Note. MSC = Mindful Self-Care, PWB = Psychological Well-Being, β = Beta coefficient, *SE* = Standard Error, CI = Confidence Interval, L = Lower, U = Upper, *t* = t-statistic, * $p < .05$, ** $p < 0.01$, Bootstrap sample size = 5,000

As declared by Mackinnon, Lockwood, and Williams (2004), if zero is in the limits of confidence intervals, indirect effect would not be significant. As Table 11 shows, the impacts of gender and age were controlled while testing the third hypothesis that resilience mediates the relationship between mindful self-care and psychological well-being, and this indirect effect was significant, $\beta = .01$, *SE* = .00, 95% CI [.003, .03]. Gender had a significant role on resilience, but it did not have a significant role on psychological well-being, $\beta = .46$, *SE* = .12, 95% CI [.22, .70]; $\beta = .13$, *SE* = .14, 95% CI [-.14, .42]. Age did not have a significant role on resilience, but it had a significant role on psychological well-being, $\beta = .007$, *SE* = .006, 95% CI [-.005, .01]; $\beta = .01$, *SE* = .007, 95% CI [.002, .03]. It illustrates that gender and age had an impact on the different paths of the mediation model.

Also, reverse mediation analysis was conducted to see if the model of third hypothesis was correct or not. In reverse mediation analysis, mindful self-care was treated as mediator, and resilience was treated as a predictor variable. Table 12 summarizes that there was a significant indirect effect of resilience on psychological well-being through mindful self-care when gender and age were controlled, $\beta = .30$, $SE = .07$, 95% CI [.15, .46]. Gender did not have a role on mindful self-care and psychological well-being, $\beta = -1.02$, $SE = .53$, CI [-2.07, .03]; $\beta = .13$, $SE = .14$, CI [-.14, .42]. Age had a role on mindful self-care and psychological well-being, $\beta = .06$, $SE = .02$, 95% CI [.01, .11]; $\beta = .01$, $SE = .00$, 95% CI [.002, .03]. It showed that age had an impact on different paths of the model while gender did not.

Table 12

Mediator Role of MSC on the Relationship Between Resilience and PWB When Gender and Age were Controlled

Path	β	SE	95% CI		t	p
			L	U		
Resilience → MSC	1.21	.28	.64	1.77	4.23	.00**
Gender → MSC	-1.02	.53	-2.07	.03	-1.91	.05
Age → MSC	.06	.02	.01	.11	2.36	.01*
MSC → PWB	.24	.01	.21	.28	13.03	.00**
Gender → PWB	.13	.14	-.14	.42	.95	.34
Age → PWB	.01	.00	.002	.03	2.34	.01*
Total Effect	.54	.10	.33	.74	5.13	.00**
(Resilience on PWB)						
Direct Effect	.24	.08	.07	.40	2.95	.00**
(Resilience on PWB)						
Indirect Effect	.30	.07	.15	.46	-	-
(Resilience on PWB)						

Table 12 (cont.d)

Note. MSC = Mindful Self-Care, PWB = Psychological Well-Being, β = Beta coefficient, *SE* = Standard Error, CI = Confidence Interval, L = Lower, U = Upper, *t* = t-statistic, **p* < .05, ***p* < .01, Bootstrap sample size = 5.000

In sum, mediation analysis (predictor variable: mindful self-care, mediator variable: resilience, and outcome variable: psychological well-being) revealed significant results even gender and age were controlled. Likewise, reverse mediation (predictor variable: resilience, mediator variable: mindful self-care, and outcome variable: psychological well-being) had significant results even controlling gender and age. Thus, there was an inconsistency between the results of mediation and reverse mediation analysis as both of them were significant. There is no clear conclusion about if resilience or mindful self-care is a mediator when predicting psychological well-being. Therefore, Hypothesis 3 of this paper was not fully supported.

4.5 Moderated Mediation Analysis

For exploratory purposes, moderated mediation analysis was done to test if the effect of mindful self-care on psychological well-being through resilience differs depending on the level of COVID-19 anxiety when controlling gender and age.

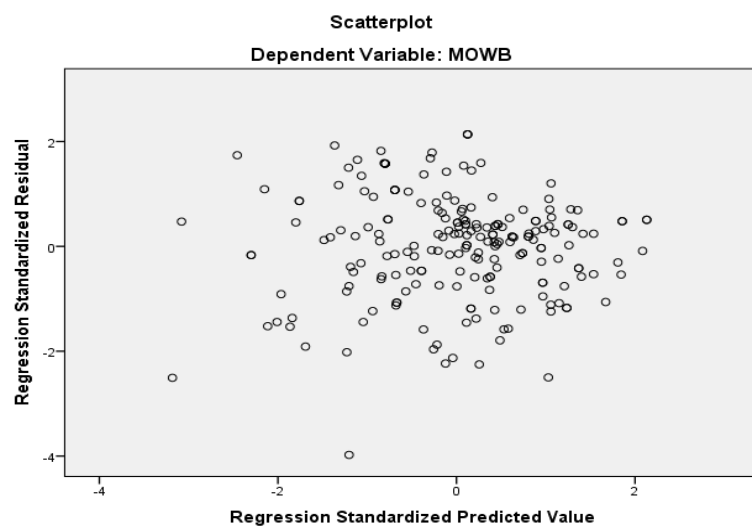


Figure 7. Scatterplot of standardized predicted values and standardized residuals of MSC, resilience, the level of COVID-19 anxiety, and PWB

Before this, regression assumptions were checked. The assumptions of normality of residuals, homoscedasticity, and independence of errors were supported. Durbin-Watson value was 1.65 which was acceptable. Figure 7 illustrates that the range of residuals was between -3 to +3 on the scatterplot displaying the relationship between standardized predicted values and standardized residuals. Multicollinearity was tested by examining the correlation between predictor variables, and the Variance Inflation Factor (VIF) and tolerance statistics of them.

Table 13

VIF and Tolerance Values of Predictor Variables of MSC, Resilience, and the Level of COVID-19 Anxiety

Predictor Variable	Tolerance	VIF
Mindful Self-Care	.91	1.09
Resilience	.87	1.14
COVID-19 Anxiety	.94	1.05

Note. VIF = Variance Inflation Factor

Table 13 illustrates that VIF and tolerance scores were found to be acceptable and indicates no multicollinearity between the three predictor variables (mindful self care, Tolerance = .91, VIF = 1.09; resilience, tolerance = .87, VIF = 1.14; anxiety level for COVID-19, tolerance = .94, VIF = 1.05). As it was revealed in the correlation analysis part, the correlations between the predictor variables of mindful self-care-resilience, resilience-COVID-19 anxiety, and COVID-19 anxiety-mindful self-care were low and indicated no multicollinearity as well.

In addition, the points almost follow the same line on the Normal P-P Plot of Regression Standardized Residual (see Figure 8). Therefore, there was a linear relationship between mindful self-care, resilience and anxiety level for COVID-19, and psychological well-being. As a result, these assumptions provided the condition for conducting moderated mediation analysis.

As the main assumptions were supported, moderated mediation analysis was performed among the following variables: MSC as a predictor, resilience as a

mediator, anxiety level for COVID-19 as a moderator, PWB as an outcome variable, and gender and age as control variables (see Figure 9).

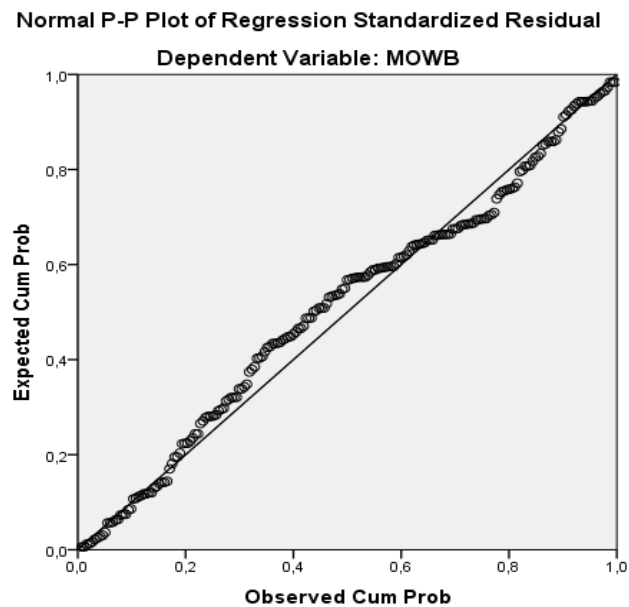


Figure 8. Normal P-P plot of regression standardized residual of MSC, resilience, the level of COVID-19 anxiety, and PWB

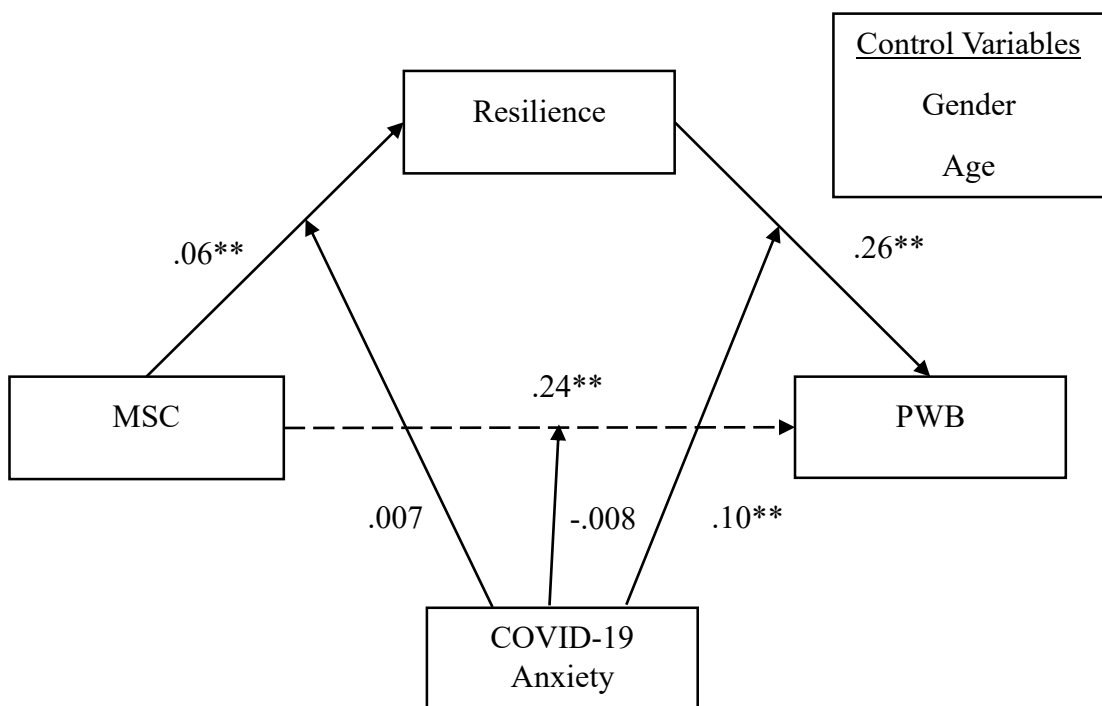


Figure 9. Diagram of moderated mediation

Note. Direct effect of MSC on PWB was reported in this figure, ** $p \leq 0.01$.

For this analysis, Process macro model number 59 was used in order to examine if anxiety level of COVID-19 moderates the impacts of path a, path b, and/or path c or not (Hayes, 2013). Also, bootstrapping approach was used to evaluate the significance levels.

Table 14 and Figure 9 show that if the link between mindful self-care on psychological well-being via resilience was moderated by the level of COVID-19 anxiety when controlling gender and age. In this model, an interaction between COVID-19 anxiety and mindful self-care predicting resilience (path a) was not significant, $\beta = .007$, $SE = .006$, $t = 1.20$, $p = .22$. The interaction between COVID-19 anxiety and mindful self-care predicting psychological well-being was not significant too, $\beta = -.008$, $SE = .008$, $t = -1.12$, $p = .26$. However, there was a significant interaction between COVID-19 anxiety and resilience predicting psychological well-being, $\beta = .10$, $SE = .03$, $t = 3.12$, $p = .00$.

Also, in this model, predicting roles of mindful self-care, $\beta = .06$, $SE = .01$, $t = 4.31$, $p = .00$, and COVID-19 anxiety, $\beta = -.07$, $SE = .02$, $t = -2.89$, $p = .004$ on resilience were significant, and resilience was a significant predictor of psychological well-being, $\beta = .26$, $SE = .08$, $t = 3.17$, $p = .001$. When predicting psychological well-being, mindful self-care was a significant predictor, $\beta = .24$, $SE = .01$, $t = 13.00$, $p = .00$, but COVID-19 anxiety was not a significant predictor of psychological well-being, $\beta = -.03$, $SE = .03$, $t = -1.15$, $p = .24$. Additionally, while gender was a significant predictor of resilience, $\beta = .41$, $SE = .12$, $t = 3.41$, $p = .00$, age was not, $\beta = .009$, $SE = .006$, $t = 1.45$, $p = .14$. When predicting psychological well-being, gender was not a significant predictor, $\beta = .14$, $SE = .14$, $t = .96$, $p = .33$, but age was found as a significant predictor of psychological well-being, $\beta = .01$, $SE = .007$, $t = 2.62$, $p = .00$.

Table 14

Moderated Mediation of MSC on PWB

Predictors	β	SE	95% CI		t	p
			L	U		
Effects on Resilience						

Table 14 (cont.d)

MSC	.06	.01	.03	.09	4.31	.00**
COVID-19 Anxiety	-.07	.02	-.12	-.02	-2.89	.004**
MSC x COVID-19 Anxiety	.007	.006	-.005	.02	1.20	.22
Gender	.41	.12	.17	.66	3.41	.00**
Age	.009	.006	-.003	.02	1.45	.14
R^2	.18					
F	9.11					

Effects on PWB

MSC	.24	.01	.20	.28	13.00	.00**
Resilience	.26	.08	.09	.42	3.17	.001**
COVID-19 Anxiety	-.03	.03	-.09	.02	-1.15	.24
MSC x COVID-19 Anxiety	-.008	.008	-.02	.006	-1.12	.26
Resilience x COVID-19 Anxiety	.10	.03	.03	.16	3.12	.00**
Gender	.14	.14	-.14	.43	.96	.33
Age	.01	.007	.004	.03	2.62	.00**
R^2	.57					
F	38.35					

Note. MSC = Mindful Self-Care, PWB = Psychological Well-Being, β = Beta coefficient, CI = Confidence Interval, R^2 = R-square, F = F-statistic, * p < .05, ** p < .01, Mediator: Resilience, Moderator: The Level of COVID-19 Anxiety, Control Variables: Gender and Age

An interaction between COVID-19 anxiety and resilience was explored. Table 15 displays conditional effects of resilience on psychological well-being (b path) in different values of COVID-19 anxiety in terms of mean scores. According to Hayes (2015), zero value is not within the lower and upper CI means that there was a significant effect of the moderator on the relationship between predictor and outcome

variable via mediator. As a result, there was a significant conditional effect of resilience on psychological well-being by controlling gender and age for the participants with high and averaged levels of COVID-19 anxiety, $\beta = .48$, $SE = .11$, 95% CI = [.25, .71]; $\beta = .26$, $SE = .08$, 95% CI = [.09, .42]. However, the conditional effect of resilience on psychological well-being by controlling gender and age for the respondents with low levels of COVID-19 anxiety was not significant, $\beta = .03$, $SE = .10$, 95% CI = [-.16, .23]. This means that resilience predicts psychological well-being better among people with high and averaged COVID-19 anxiety levels, but not for people with low COVID-19 anxiety levels.

Table 15

Conditional Effects of Resilience on PWB at Values of the Level of COVID-19 Anxiety

COVID-19 Anxiety	Effect	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI	
					L	U
Effects						
-1 <i>SD</i>	.03	.10	.34	.73	-.16	.23
<i>M</i>	.26	.08	3.17	.00	.09	.42
+1 <i>SD</i>	.48	.11	4.18	.00	.25	.71

Note. *SD* = Standard Deviation, *M* = Mean, *SE* = Standard Error, **p* < .05, ***p* < .01, CI = Confidence Interval, L = Lower, U = Upper, Bootstrap sample size = 5.000, Control Variables: Gender and Age

Chapter 5

Discussion and Conclusions

This chapter has divided into three parts which are discussion of the findings of the research questions by having different sections for each hypothesis, conclusions, and recommendations.

Mainly, it was hypothesized that mindful self-care positively predicts resilience and psychological well-being. Also, resilience was expected to positively predict psychological well-being. According to the findings, these hypotheses were supported even controlling the effects of gender and age. From another angle, the hypothesis which indicated that resilience mediates the relationship between mindful self-care and psychological well-being even controlling gender and age was partially supported. This happened because reverse mediation model that considered mindful self-care as a mediator on the link between resilience and psychological well-being was also statistically significant even controlling gender and age. Additionally, the moderator roles of the level of COVID-19 anxiety on the link between mindful self-care and psychological well-being through resilience when controlling gender and age were examined. As a result, COVID-19 anxiety moderated the relationship between resilience and psychological well-being when the levels of COVID-19 anxiety were high and averaged. However, it did not moderate the relationship between resilience and psychological well-being when its levels were low. All these results were discussed in detail in this section.

5.1 Discussion of Findings of Research Questions

In this thesis, the questions of how do mindful self-care behaviors affect people's resilience levels, and how do these behaviors and resilience levels influence the wellness of humankind have been highlighted. The investigation of what is the role of Covid-19-related anxiety on human health was another important point of this paper especially within these stressful circumstances. It has become inevitable to seek answers to all these questions because COVID-19 pandemic has reminded all humanity how important their health is. Under these conditions, mindful self-care behaviors have started to attract attention which are recently known to have positive effects on human resilience and well-being in terms of prevention and intervention. Consequently, the predictive role of mindful self-care on resilience and psychological

well-being as well as the predictive impact of resilience on psychological well-being were emphasized in this paper. Based on these, mediating role of resilience on the relationship between mindful self-care and psychological well-being was examined. Simultaneously, the possible influence of coronavirus period on the determined hypotheses was examined in terms of the variable of the level of COVID-19 anxiety. All these associations were figured out when the impacts of gender and age were controlled. Research data were discussed below within the framework of descriptive statistics, main hypotheses, and exploratory analysis.

First of all, descriptive statistics showed that the level of COVID-19 anxiety, the level of actively following COVID-19 news, mindful self-care behaviors, resilience, and psychological well-being were from average to above average in general. Usually, anxiety inversely related to self-care, resilience, and psychological well-being (Mollaoglu, 2006; Hu et al., 2015; Paredes et al., 2020). For instance, in the adaptation study of the MSCS on Chinese adults during coronavirus period, wellness of the respondents was found to be not good (Wong, 2020). Maybe the situation which appeared in this research requires an evaluation of the conditions of the COVID-19 pandemic within the framework of cultural and country conditions. Silver (2020) mentioned that people are generally encouraged to engage in behaviors of self-protection (i.e. wearing a mask and hand-washing) to deal with the outcomes of COVID-19. Likewise, Disabato et al. (2021) suggested that higher rates of self-care behaviors were observed at the beginning of COVID-19 period among people in U.S. In this way, respondents of this research may devote more time to mindful self-care practices to protect themselves and their loved ones during this period due to their anxiety related to COVID-19. It should be also noted that the time spent with themselves might have increased due to quarantine process.

On the other hand, Gerhold's (2020) qualitative analysis manifested that German people applied emotional coping strategies (i.e. engaging in activities creating positive emotions) and problem-solving coping strategies (i.e. communicating with others to get information) to cope with the stress associated with pandemic. Interestingly, it was also stated that people made food stocks during coronavirus pandemic. Likewise, Hatun, Dicle, and Demirci (2020) mentioned about the use of four strategies which are cognitive, transcendental, relational, and behavioral to manage their fear about coronavirus. As a matter of fact, meeting the main survival needs may have become difficult due to the restrictions in this process, and this may

have made people alert within the scope of their survival needs. On the other hand, the items of this study consisted of positive items mostly which might have caused bias in the answers given by the participants. In similar studies, adding more negative items may come to the fore. Since examining this topic was not the main aim of this thesis, more reliable data can be obtained with studies comparing the pre-COVID-19 and during COVID-19 in the context of the frequency of the mindful self-care behaviors. For example, as suggested by Disabato et al. (2021), it may be necessary to investigate the health effects of changes in self-care behaviors during the day and during the week by focusing on mindful self-care practices of people.

Another point is that most of the participants were young adults, female, university graduate, working, and single. Also, most of them had no child, no dependent people to take care of, no chronic and psychological disorder, and don't use any medicine. This may limit the generalization of the results to the other populations. Nevertheless, considering that the previous mindful self-care studies conducted by Sunbul et al. (2018a) and Sunbul et al. (2018b) in Turkey were carried out only with university students, it can be argued that this research presented more comprehensive results.

From another perspective, higher SES of people were found to be associated with higher levels of self-care, resilience, and psychological well-being (Adkins-Jackson, 2020; Campbell-Sills et al., 2009; Nalin & França, 2015). Despite all these, due to the mistake made during the data collection phase, SES level of participants was not obtained, and then, the effect of SES on the hypotheses of this research were not controlled. It is argued that there is a necessity to evaluate the research results within the scope of SES of individuals. Another mistake is that 10-point Likert scale was used instead of 11-point Likert scale in the PERMA-Profilier scale. This may also limit the reliability of the data obtained about the level of psychological well-being.

Importantly, it is thought that the factors such as the fact that this research was conducted on a non-WEIRD society, it was prepared in accordance with OSF practices, and the number of participants were decided in accordance with the power analysis could be evaluated as some of the strengths of this research. Therefore, it is believed that the research findings may provide a new perspective on the mentioned concepts.

Considering the main questions of this research, the first hypothesis of this study was mindful self-care behaviors positively predict resilience and psychological

well-being. According to the findings, this hypothesis was supported in this research. To be more specific, higher levels of overall mindful self-care had a significant role on the higher levels of resilience even controlling gender and age. This finding is similar to the results of the previous studies in which physical activity, mindfulness, self-compassion, social support, and supportive environment were significant predictors of resilience (Ozkara et al., 2016; Zadok-Gurman et al., 2021; Nery-Hurwit et al., 2018; Ozbay et al., 2006; Egeland et al., 1993). Conceptually, these were closely related to the subdimensions of mindful self-care, and it was not surprising that overall mindful self-care predicts resilience based on the assertions of previous studies. It is believed that the prediction of overall mindful self-care on resilience provides a more comprehensive result by showing the effect of these notions on resilience in general, which was not studied before.

The second part of the first hypotheses was also supported as overall mindful self-care predicted psychological well-being. This means that engaging in mindful self-care practices will contribute to the psychological well-being of people even controlling gender and age. This was in the same line with the results of the other studies. With some exceptions, overall mindful self-care as well as its dimensions predicted psychological well-being among university students (Sunbul et al., 2018b; McGuinness, 2020). Beyond that, this association was also found to exist among people not only from college students in a Turkish sample, and this is one of the contributions of this study to existing literature.

As a whole, mindful self-care has a remarkable role on resilience and psychological well-being, and this finding is reminiscent of Maslow's Hierarchy of Needs stating that meeting needs has positive effects on human body, spirit, and development. Indeed, as it can be seen in the studies of Holmberg and Kane (1999) and Simco et al. (2014), research on self-care among individuals with the symptoms of depression, anxiety or schizophrenia have also revealed the importance of this concept in the field of psychology. For these reasons, it is inevitable to highlight that mindful self-care is negatively related to psychopathologies, and positively related to health related variables.

Hypothesis 2 of this study was also supported. Greater levels of resilience contributed to the greater levels of psychological well-being even controlling gender and age. This is in line with the research findings of other researchers who indicated the predictive role of resilience on several well-being measures (Malkoç & Yalçın,

2015; Neufeld & Malin, 2019; Idris et al., 2019; Lane, 2020). Whether in the context of trait resilience or ego-resilience, it has been clearly stated that the variation on well-being can be explained by the levels of resilience. Accordingly, the importance of having higher levels of resilience on mental health has also been reintroduced.

Furthermore, the role of mindful self-care and resilience on psychological well-being increased after adding gender and age to the model. According to previous studies, being male or female as well as being young and old differentiates the levels of mindful self-care, resilience, and psychological well-being (Cleofas, 2021; Zeb et al., 2021; Sambu & Mhongo, 2019; Keyes, 2002b). This means that it was reasonable to include gender and age and control their effects in the analyses of this study.

Whether resilience mediates the relationship between mindful self-care and psychological well-being was examined in the light of the first and second hypothesis of this study. For that purpose, mediation analysis was performed to reveal whether resilience was a mediator on the link between mindful self-care and psychological well-being when controlling gender and age, and reverse mediation analysis was performed by relocating mindful self-care and resilience to test the consistency of the specified model.

As a matter of fact, correlational studies do not reveal a direct cause-effect relationship, and this limitation is generally known. As a result, it has been displayed that resilience had a mediating role on the link between mindful self-care and psychological well-being even gender and age were statistically controlled. This means that people engaging in mindful self-care behaviors are likely to be more resilient, and then, have increased levels of psychological well-being. In contrast, according to the reverse mediation model, it was seen that mindful self-care had a mediating role on the link between resilience and psychological well-being even gender and age were statistically controlled. This implies that more resilient people are likely to engage in more self-care behaviors, and in turn, they have greater levels of psychological well-being. Thus, clarifying the mediator among these relationships seems difficult.

Actually, it was revealed that all sub-dimensions of mindful self-care explained the variation on resilience separately as mentioned before (Sunbul et al., 2018b; Philippe et al., 2021; Ozkara et al., 2016; McArthur et al., 2017; Wilks, 2008). Contrarily, there is a finding displayed that self-compassion was predicted by resilience therapeutic students (Kotera et al., 2021). Similarly, Anyan, Hjendal,

Ernsten and Havnen (2020) carried out a research on the changes in physical activity, resilience, and anxiety and depression levels on people in Norway. It was suggested that resilience could be a critical variable effecting changes in physical activity among adults during quarantine in coronavirus period. This situation indicates that there may not be a definite predictive relationship between mindful self-care and resilience, and the relationship between them has a complex nature. Yet, it is clear that there is a significant and positive link between these two variables. Obviously, the importance of mindful self-care and resilience on mental and physical health of people with or without a diagnosis in terms of psychopathology was revealed. Thus, it can be asserted that studies aiming to promote mindful self-care and/or resilience levels of both clinical and non-clinical populations are likely to affect both of the levels among them. Especially, it can be assumed that good outcomes can be obtained for the diagnosis, etiology, frequency, severity, and treatment of psychological disorders among clinical groups as well as prevention of disorders before they occur among non-clinical populations.

From another perspective, diverse definitions and measurement tools of mindfulness, self-care, resilience, and psychological well-being were presented, and this distinction is very common in social sciences. There is a possibility that when different operational definitions and measures are taken into account, different results emerge. This could be one of the reasons that diverse findings appear for the same constructs in the field. In addition, Lemmer and Gollwitzer (2017) underlined that reverse mediation may not always give good results in testing which variable is the mediator. Within these circumstances, all mediation analyses results were significant even controlling the effects of gender and age in this paper. At this point, it reveals the importance of constructing experimental designs in order to manipulate predictor variables and reach a more precise judgement. Last but not least, it was observed that gender and age had an impact on the different paths of the mediation model of this study. In this way, examining how these results differ according to the gender and age of individuals may also be crucial in terms of obtaining better information about the model.

As it can be understood, mindful self-care is a new concept and needs to be studied. As asserted by Archer (2020), few researchers examined the link between mindfulness and self-care at the same time despite of the fact that they were found to be related constructs before. It is assumed that it is necessary to investigate the

relationship between mindful self-care behaviors with the terms frequently used in the clinical psychology literature, because its positive effects on health-related outcomes was also found in this research.

Additionally, since data was collected during coronavirus pandemic, the moderator role of the level of COVID-19 anxiety on the link between mindful self-care and psychological well-being through resilience when controlling gender and age was examined in order to test the possible effect of this period on the hypotheses stated. As a result, there was no interaction effect of the level of COVID-19 anxiety on the link between mindful self-care and resilience as well as on the link between mindful self-care and psychological well-being when the effects of gender and age were controlled. This may mean that even the levels of COVID-19 anxiety are low, medium or high, engaging in mindful self-care behaviors has a big role on resilience and psychological well-being of people. For instance, the results of previous studies illustrated that mindful self-care behaviors explained the variation on psychological well-being, and even more than resilience (Sunbul et al., 2018b; McGuinness, 2020).

On the other hand, lower levels of COVID-19 anxiety predicted higher levels of resilience in this research. Similarly, fear of COVID-19 negatively predicted resilience in a survey on young adults in China (Chen, Liu, Zhang, Li & Zhou, 2021). In contrast, Satıcı, Kayis, Satıcı, Griffiths, and Can (2020) asserted that greater levels of resilience were a predictor of decreased levels of fear of COVID-19 on adults in Turkey. Therefore, it is obvious that there is an inverse association between the level of COVID-19 anxiety and resilience, but the direction of this relationship is still not clear. Even the direction of the association is not clear, it can be inferred that clinical interventions aiming to reduce COVID-19 anxiety and promote resilience will have utility for individuals to have better adaptation and psychological functioning.

Importantly, there was an interaction effect of the level of COVID-19 anxiety on the link between resilience and psychological well-being when the effects of gender and age were controlled. This means that different levels of COVID-19 anxiety differentiated the relationship between resilience and psychological well-being. Interestingly, the level of COVID-19 anxiety did not predict psychological well-being alone in this research. In a parallel way, fear of COVID-19 was not a predictor of psychological well-being among adults in Australia as a result of a longitudinal study (Matthes, Koban, Neureiter & Stevic, 2021). Conversely, Özmen, Özkan, Özer, and Zubaroğlu-Yanardağ (2021) asserted that fear of COVID-19 predicted well-being of

adults in Turkey. One explanation for this contradiction could be the level of COVID-19 anxiety may become an important variable when considering its role on the link between resilience and psychological well-being as it was found in this study. From another perspective, being anxious due to coronavirus is a natural process that most people experience, and this anxiety may not be the same as pathological anxiety. On the contrary, positively predicted subjective well-being of university students in Turkey (Erden, Özdoğru, Çoksan, Ögel-Balaban, Azak, Altınoğlu-Dikmeer, Ergül-Topçu, Yasak, Kırıl-Uçar, Oktay, Karaca-Dinç, Merdan-Yıldız, Eltan, Kumpasoğlu & Baytemir, 2021). This may mean that whether people have knowledge about coronavirus may be an important variable in terms of the level of COVID-19 anxiety of humankind. In other words, increasing the accurate information about the virus could be a great way to deal with the outcomes of COVID-19 pandemic. From a clinical psychology perspective, providing psychoeducation about the possible effects of these terms on mental and physical health during psychotherapy process could be helpful for people to understand their individual experiences. Therefore, the level of COVID-19 anxiety may not be meaningful on its own in making predictions about well-being in some populations. Still, more surveys are needed on COVID-19 anxiety as it has just entered to people's lives.

More importantly, the results of conditional effects revealed that in cases where the levels of COVID-19 anxiety were high and averaged, it was a moderator on the link between resilience and psychological well-being when gender and age were controlled. Conversely, in cases where the levels of COVID-19 anxiety were below average, it was not a moderator on the link between resilience and psychological well-being when controlling gender and age. This is an interesting finding because moderate to high levels of anxiety related to coronavirus plays a critical role on the association between resilience and psychological well-being. Thereupon, it has become important in today's conditions to measure COVID-19 anxiety while interpreting the role of individuals' resilience levels on their health since the link between anxiety-resilience and fear of COVID-19-resilience were negative on previous studies as well (Hu et al., 2015; Tural & Efe, 2020; Karataş & Tagay, 2021; Chen et al., 2021). Based on all these, figuring out the association between mindful self-care, resilience, and psychological well-being requires consideration of COVID-19-related anxiety of humankind.

Overall, according to the results of this additional analysis which was carried out with an exploratory purpose, preliminary findings about the level of COVID-19 anxiety and its relationship between mindful self-care, resilience, and psychological well-being were obtained. Since this study will be one of the pioneering studies on the subject, it is thought that it will pave the way for further studies involving anxiety related to coronavirus. Therefore, more research and intervention programs specifically on the level of COVID-19 and its relation to the health-related outcomes are needed for helping people to deal with their increased levels of COVID-19 anxiety.

In sum, despite all possible limitations and problems, it is discussed that this research contributes to the literature by considering the relations between mindful self-care behaviors, resilience, psychological well-being, the level of COVID-19 anxiety, gender, and age. It is inevitable to claim that individuals who take care of themselves regularly are likely to cope better with the stress factors they encounter, will be more resilient, and their health status will be better compared to other individuals. For this reason, it is necessary to develop programs and interventions for protecting and maintaining mental and physical health, and preventing diseases before they appear. Moreover, mindful self-care and resilience strengthening interventions in patients with psychological problems or physiological diseases will contribute to their wellness. In this context, researchers and health professionals ranging from psychologists to dietitians should focus on promoting individual and societal health by adopting an interdisciplinary perspective. Particularly, having a focus on prevention beyond intervention may prevent serious losses in the COVID-19 period when both individual and societal health are under threat. In this regard, not only health professionals, social workers, and/or researchers, but also institutions have critical roles. From an organizational point of view, it is also highlighted that institutions may create an atmosphere helping people to arrange their leisure time to engage in mindful self-care practices. Even high-budget and time-consuming interventions cannot be implemented to some individuals or groups, awareness-raising activities can help people to be more aware of their needs. More importantly, mindful self-care is an individual matter, and individuals have critical roles and responsibilities on their self-care.

5.2 Conclusions

In conclusion, the issue of protecting and maintaining people's mental and physical health has gained even more importance during the COVID-19 pandemic,

which negatively affects human life in many ways. It is a remarkable issue how people maintain their resilience and well-being levels, especially during stressful periods. In addition, it is a well-known fact that self-care behaviors have both protective roles before the onset of a possible disease and coping roles after the onset of a possible disease. At this point, measuring the self-care behaviors of people through a concept of mindful self-care has been found to be beneficial to fill the gap in the literature regarding this concept, since it has a contemporary perspective on self-care by having mindfulness component. Based on the relevant literature, it has been suggested that mindful self-care would predict resilience and psychological well-being, resilience would predict psychological well-being, and theoretically, resilience would be the mediator in the mindful self-care and psychological well-being relationship. In order to better understand these relationships, regression, mediation, and reverse mediation analyses were conducted. Additionally, as an exploratory analysis, moderated mediation analysis was conducted to understand the role of COVID-19 anxiety on the indicated mediation to obtain preliminary findings. Effects of gender and age variables were controlled in these regression, mediation, reverse mediation, and moderated mediation analyses. As a result, in accordance with the literature, mindful self-care predicted resilience and psychological well-being, and resilience predicted psychological well-being. However, while resilience was found to be the mediator on the relationship between mindful self-care and psychological well-being in mediation analysis, mindful self-care was found to be the mediator on the relationship between resilience and psychological well-being in reverse mediation analysis. That is, the hypothesis that resilience has a mediating role on the relationship between mindful self-care and psychological well-being was not fully supported due to the nature of the correlational study. According to the results of the moderated mediation analysis, the level of COVID-19 anxiety had no moderator effect on the relationship between mindful self-care and resilience as well as mindful self-care and psychological well-being. However, the moderator role of the level of COVID-19 anxiety on the relationship between resilience and psychological well-being emerged only in people with high and moderate levels of COVID-19 anxiety.

In general, this thesis went beyond the usual sample in the measurement of mindful self-care and psychological well-being in Turkey, added the variables of resilience and the level of COVID-19 anxiety to the model, and considered the conditions of coronavirus that requires more focus on human health. All in all, it is

argued that this thesis provides crucial data to fill the gap in the literature as well as it may contribute to the mental and physical health of the people, since there are few studies on the concepts especially in Turkey. Considering the limitations of this study, the sub-dimensions of the mentioned variables as well as their associations with different variables such as SES should be examined, and the findings should be retested with different research designs. Healthcare professionals and researchers from distinct fields may take advantage of the research data. They should closely deal with the issue of health promotion and organize intervention programs with awareness-raising activities on mindful self-care, resilience, COVID-19 anxiety, and psychological well-being by focusing on the mentioned presumptions.

5.3 Recommendations

The findings of this study contributed to the literature as well as raised new questions. First of all, further studies may focus on the relationship between mindful self-care, resilience, and psychological well-being through more diverse groups both in Turkey and in the world, and perhaps intercultural comparisons can be made. Furthermore, mindful self-care behaviors of individuals can be examined with longitudinal research, because researchers evaluated mindful self-care behaviors done in the last week up to now. Reversely, changes in the frequency and duration of mindful self-care practices over the past week and during the day can also be taken into account. More broadly, retrospective studies can be done to understand the link between these concepts before and during COVID-19 period. Likewise, if one day COVID-19 completely disappears from our lives, conducting studies that contain the different periods of COVID-19 during and after may provide a more reliable data.

Future studies should specifically involve SES which was not be mistakenly included in this study as well as gender and age in their examination of the research variables of mindful self-care, resilience, the level of COVID-19 anxiety, and psychological well-being. In particular, it will be interesting to look at how these variables are related with each other among women and men, young and old, or those with low and high SES. It is obvious that this thesis provided preliminary findings on the relationship between mindful self-care, resilience, the level of COVID-19 anxiety, and psychological well-being. However, it is recommended to conduct new studies by focusing on the effect of the level of COVID-19 anxiety on the well-being of

humankind. These studies may also consider people infected with the virus or not, and people's knowledge about COVID-19.

In particular, there is a need for studies that collect data other than university students in Turkey. For instance, different occupational groups can be examined since individuals with long working hours may exhibit less mindful self-care behaviors in considering supportive structure subscale. In contrast, evaluation of both psychological and organizational outcomes such as work-life balance, employee performance, and job satisfaction may also be on the agenda. From another perspective, since mindful self-care behaviors were not examined in samples that consist of children and/or parents in Turkey, this gap should also be filled. Again, it is also necessary to conduct surveys by including healthcare professionals, and examine the mindful self-care practices of people who do yoga or not as well as people with chronic illness or psychological disorder.

Specific programs (i.e. MSCR) aiming to promote the mindful self-care, resilience, and health need to be adapted and applied to Turkish population. The efficacy of these programs can be tested with experimental designs and specifically through pretests and posttests. Within these circumstances, adapting the Brief MSCS to Turkish and analysing the frequency of mindful self-care behaviors through this scale will also pave the way for measuring this concept more quickly and perhaps reaching more respondents. Furthermore, since the scales used in this study were adapted to Turkish on university students, it may be considered to conduct EFA and CFA for calculating the validity and reliability of them for people other than college students.

Conceptually, mindful self-care behaviors can be examined comprehensively by adding questions about sleeping, smoking, alcohol use, and/or including self-harming behaviors. The use of such concepts containing negative items may also allow a comparison between behaviors having positive and negative outcomes. This may also help to reach better results among people who have intuitive thinker tendencies. Even whether or not wearing a mask during coronavirus may be a source of data on self-care. Other terms can be investigated that are likely to predict mindful self-care and resilience in future studies. For instance, Big Five personality traits, having traumatic experiences, and the existence of personality disorders may differentiate the patterns of mindful self-care and resilience. To be more specific, the frequency of mindful self-care behaviors and resilience levels of individuals with obsessive-

compulsive personality disorder and borderline personality disorder may show different patterns from a clinical psychology perspective. In other words, comparisons can be made on individuals with different psychopathologies such as eating disorders.

To summarize, there is a need for doing a lot of research on this area, especially in Turkey. At the macro level, the type and level of self-investment may differ based on the conceptualizations of self care and resilience. For example, all these concepts could be specifically examined among individualistic and collectivistic cultures by comparing their peculiarities. Eventually, the possibility that mindful self-care can be defined and applied in different ways in the cultural contexts should also be evaluated in future studies. Finally, in order to test the reliability of the data obtained, this research can be replicated and the models in this study can be retested by examining the sub-dimensions of the scales.

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