Hacettepe University Graduate School of Social Sciences

Department of Social Work

A BRIEF MINDFULNESS EDUCATION PROGRAM FOR SOCIAL WORK STUDENTS

Navidreza HOSSEINZADEH ASL

Ph.D. Dissertation

Ankara, 2020

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ABSTRACT

HOSSEINZADEH ASL, Navidreza. *A Brief Mindfulness Education Program for Social Work Students*, Ph.D. Thesis, Ankara, 2020.

Mindfulness has recently been a notably hot topic for social work discipline. Many social work academics are increasingly considering integrating these programs into the social work curriculum; however, many see such programs time-consuming and difficult to integrate into social work crowded curriculum, consequently proposing shorter versions. This doctoral thesis aimed to design a brief mindfulness-based education program for social work students and to examine its effectiveness. The study used a quantitative approach, with a quasi-experimental pre-test post-test study design, to examine the program's effectiveness in two separate modules of traditional classroom-based and online programs. The study's participants were 101 third-year undergraduate social work students studying at Hacettepe University. Thirty-two and 27 students respectively comprised the intervention and waitlist control groups of the traditional classroom-based mindfulness module, and 23 and 19 students the online module. A personal questionnaire, Depression, Anxiety and Stress Scale-21 (DASS-21), Self-Compassion Scale (SCS), Ruminative Thought Style Scale (RTS), Mindful Attention Awareness Scale (MAAS), and The Toronto Empathy Questionnaire (TEQ) were utilized on the intervention and waitlist control groups before and after the intervention. The Analysis of Covariance (ANCOVA) was applied to examine whether the intervention groups reported better results on each variable regarding the measures, after the brief mindfulness intervention. Moreover, multiple mediation analyses were utilized to find out about the possible working mechanisms of the intervention. The results indicated that the brief mindfulness program, in both modules similarly, could make statistically significant improvements in the students' psychological health; however, not in their therapeutic relationship. Mediation analyses showed that adjusting trait mindfulness, rumination, and self-compassion were the possible working mechanisms of the program. Therefore, this brief mindfulness program can be used as an effective and introductory mindfulness program for undergraduate social work students in either classroom-based or online modules; nevertheless, more research is recommended.

Keywords

Brief Mindfulness Program, Social Work Students, Psychological Health, Therapeutic Relationship.

ÖZET (TURKISH ABSTRACT)

HOSSEINZADEH ASL, Navidreza. *Sosyal Hizmet Öğrencileri için Kısa Süreli Bilinçli Farkındalık Eğitim Programı*, Doktora Tezi, Ankara, 2020.

Bilinçli Farkındalık (mindfulness) son zamanlarda sosyal hizmet disiplini için büyük önem taşıyan bir gündem maddesi haline gelmiştir. Birçok sosyal hizmet akademisyeni bilinçli farkındalık temelli programlarını sosyal hizmet müfredatına entegre etmeye başlamıştır. Ancak bununla birlikte birçoğu bu tür programların zaman alıcı olduğunu ve sosyal hizmetin kalabalık müfredatına entegre etmekte zorlandıklarını ve sonuç olarak daha kısa versiyonlara ihtiyaç duyulduğunu öne sürmüştür. Bu doktora tezi, sosyal hizmet öğrencileri için kısa süreli bilinçli farkındalık eğitim programı tasarlamayı ve bu programın etkililiğini incelemeyi amaçlamıştır. Bu çalışma, geleneksel ve online sınıflar olmak üzere iki ayrı modülde programın etkililiğini incelemiştir. Bu doğrultuda, yarı deneysel bir öntest - sontest araştırma tasarımıyla nicel bir yaklaşım kullanmıştır. Araştırmanın katılımcılarını Hacettepe Üniversitesi'nde öğrenim gören 101 sosyal hizmet üçüncü sınıf lisans öğrencisi oluşturmuştur. Geleneksel sınıfın müdahale ve kontrol (bekleme listesi) gruplarını sırasıyla 32 ve 27 öğrenci; online sınıfın müdahale ve kontrol gruplarını ise sırasıyla 23 ve 19 öğrenci oluşturmuştur. Kişisel soru formu, Depresyon, Kaygı ve Stres Ölçeği-21 (DASS-21), Öz-Şefkat Ölçeği (ÖŞÖ), Ruminatif Düşünce Biçimi Ölçeği (RDBÖ), Bilinçli Farkındalık Ölçeği (BİFÖ) ve Toronto Empati Ölçeği (TEÖ) müdahaleden önce ve sonra müdahale ve kontrol gruplarında kullanılmıştır. Müdahale gruplarının kısa bilinçli farkındalık programı sonrası ölçülen değişkenlerde daha iyi sonuçlar verip vermediğini incelemek için Kovaryans Analizi (ANCOVA) uygulanmıştır. Ayrıca, müdahalenin olası çalışma mekanizmaları hakkında bilgi edinmek için çoklu aracı (mediation) analizleri kullanılmıştır. Sonuçlar, kısa bilinçli farkındalık eğitim programının her iki modülde de benzer şekilde öğrencilerin psikolojik sağlığının iyileştirilmesinde etkili olabileceğini, ancak terapötik ilişkilerini geliştirmede istatistiksel olarak anlamlı bir etkisinin olmadığını ortaya koymuştur. Aracı analizleri sonuçlarına göre programın olası çalışma mekanizması farkındalık, ruminasyon ve öz-şefkati iyileştirmek ve böylece psikolojik sağlığı olumlu yönde etkilemektir. Sonuç olarak bu program, her iki modülde (geleneksel veya online) de sosyal hizmet üçüncü sınıf lisans öğrencileri için bilinçli farkındalığın temel bilgilerini etkili bir şekilde sunabilir, ancak bu konuda daha fazla araştırma yapılması önerilmektedir.

Anahtar Sözcükler

Kısa Süreli Bilinçli Farkındalık Programı, Sosyal Hizmet Öğrencileri, Psikolojik Sağlık, Terapötik İlişki.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

“This being human is a guest house.
Every morning a new arrival.

A joy, a depression, a meanness,
some momentary awareness comes
as an unexpected visitor.

Welcome and entertain them all!
Even if they are a crowd of sorrows,
who violently sweep your house
empty of its furniture,
still, treat each guest honorably.
He may be clearing you out
for some new delight.

The dark thought, the shame, the malice.
meet them at the door laughing and invite them in.

Be grateful for whatever comes.
because each has been sent
as a guide from beyond”

— Mevlânâ Celâleddîn-i Rûmî,
translated by Coleman Barks

The poem above, namely “The Guest House”, by Mevlana Celaddiin-i Rumi is one of the commonly used poems in mindfulness sessions and programs around the world. As can be realized from the name, this poem analogize our mind to a guest house where many guests (such as thoughts, emotions, or sensations) can arrive. They can be negative, disturbing, or joyful. Does not matter, welcome them all, however, they can bother, disturb or terrify you. Just let them in with a smile [after a while, they would go out of house by themselves]. This is the very definition of mindfulness, visualizing by a poem.

Jon Kabat-Zinn, perhaps the most leading pioneer who brought mindfulness into Western literature, defines mindfulness as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 2005). This means mindfulness is a technique of directing our attention towards something we want to, at the present moment without forming judgments regarding those that are arising at the moment. This definition of mindfulness have many basic similarities with the poem mentioned above in welcoming thoughts and other sensations (guests) that come to our mind (house). We do not judge them as good or bad guests, we realize them, after a while, however, we redirect our attention to something else in the present moment (not in the past or the future). If we do so, we would let them out because guests cannot stay in a house when the host does not serve them much. Although these explanations of mindfulness can be quite complicated, it is somewhat easier to perform in practice.

Particularly in the last 20 years, mindfulness has grown to be a hot topic not only as a psychotherapy method but also as a daily life practice. This is, without any doubt, because of its effectiveness and feasibility to relieve a variety of problems, mostly psychological ones, such as stress, anxiety, depression, post-traumatic stress disorder, substance use and abuse, or chronic pain (Abbott et al., 2014; Hosseinzadeh Asl & Barahmand, 2014; Hosseinzadeh Asl & Hosseinalipour, 2014; Bassam Khoury, Knäuper, Schlosser, Carrière, & Chiesa, 2017; B. Khoury, Sharma, Rush, & Fournier, 2015; Zainal, Booth, & Huppert, 2013).

However, there are some other factors that make mindfulness even more attractive to different disciplines. Studies have shown that receiving mindfulness training by university students, health care professionals, or therapists, promotes their self-care, but on the other hand, improves their clinical knowledge and skills. Researchers have reported that mindfulness can help these participants to cultivate some affective components such as empathy and compassion, which are the essential factors in the therapeutic relationship (Bonifas & Napoli, 2014; Hick, Bien, & Segal, 2010; Morgan & Morgan, 2005).

Social work is also one of those disciplines that has an enthusiasm for mindfulness-based practices. Social work program plans to educate its professionals to work in stressful environments that can affect social worker well-being and health (Lloyd, King, & Chenoweth, 2002; Lynn, 2010). Some elements such as empathy and compassion are also crucial parts of social work practice with clients. As a consequence, many social work educators are increasingly considering integrating mindfulness-based interventions into social work programs because they believe participating in a mindfulness-based intervention course enhances social worker self-care as well as their professional competence, making these courses incredibly valuable to social work profession (Birnbaum & Birnbaum, 2008; Gockel & Deng, 2016; Lynn, 2010).

In this doctoral thesis, the intention was to design an effective but also efficient mindfulness training program and to examine its potential effects on some elements of psychological health as well as empathy levels among social work undergraduate students.

CHAPTER 1

1.1. PROBLEM STATEMENT

Social workers can encounter quite stressful/disturbing situations. Clients who are experiencing harsh environments such as war, rape or sexual abuse, domestic violence (e.g. incest, physical/psychological abuse, or neglect), or clients with several other painful conditions typically comprise the main proportion of social workers' clients. This can negatively affect workers' mental health, causing compassion fatigue, anxiety, burnout, depression, vicarious traumatization, and secondary traumatic stress, (Bride, 2007; Grise-Owens, Miller, & Eaves, 2016). Here, the importance of effective self-care practices raises, anticipating workers must acquire some self-care tools to protect themselves against the stressful/disturbing situations.

Self-care practices affect not only social workers themselves but also their services to the clients. If social workers are not psychologically healthy, how can they properly carry out services to their clients? Neglecting to deal with this matter can typically result in a variety of problems such as sleep deprivation, compassion fatigue, moral distress, diminished confidence, and a sense of hopelessness. (Adams, Boscarino, & Figley, 2006; Mänttäri-van der Kuip, 2016; Pooler, 2008), which each of these conditions alone may result in ineffective services for their clients (McGarrigle & Walsh, 2011).

On the other hand, social work students experience various types of stressors, and sometimes even more than social workers working in the field; consequently, they suffer higher levels of psychological distress (Tobin & Carson, 1994). This is most likely because of being exposed to harsh issues such as poverty, rape, child abuse, and discrimination, which are associated with the nature of social work education. In particular, many students encounter such issues for the first time in their lives, and this can be quite a difficult and intense experience. Moreover, academic demands and coursework assessments add to the amount

of their distress. This excessive amount of psychological distress adversely affects their academic success, and therefore, undermines social work discipline.

One of the relatively new and efficient means of dealing with psychological distress is mindfulness. To address clients' difficulties and to present quality services to them, first, there should be effective self-care methods acquired by social workers themselves. Botta, Cadet, and Maramaldi (2015) have argued that professionals of health care and social services are progressively incorporating mindfulness in their work because emerging research indicates that it is an efficient means of self-care. This integration can particularly be done at universities, where the students as the future social workers are in the first line of the learning.

Another fundamental problem this doctoral thesis tries to address is about social worker's competence. Social work discipline (like many other disciplines) must always keep itself up-to-date with new knowledge and must care about its professionals' competence (as a core value of social work). It means there should be some courses or workshops for teaching more recent and effective interventions like mindfulness-based practices, which plenty of evidence suggests their usefulness in different areas of working with clients and alleviating their problems. This kind of training would establish a foundation for therapists in implementing mindfulness-based (or at least mindfulness-informed) therapies for their clients (Shapiro, Thakur, & de Sousa, 2014). However, unfortunately, despite all these benefits for the social work discipline, because of the lack of such training courses, these practices are still less recognized in some developing countries, including Turkey.

The third significant problem to address, in this thesis, is about the quality of social worker-client relationships. The quality of this relationship is such crucial to the success of intervention that if the social worker cannot establish a good-quality connection, the intervention is very likely about to fail. It is just like a bridge to the other side (client). The better quality of bridge we have, the higher number

of goods we can carry to the other side. If it is not in a good shape, we cannot reach the client.

Various researches have reported elements such as empathy and compassion, which help in building rapport – a relationship characterized by mutual understanding that makes communication possible and easy – correlate more significantly with intervention successes than specialized therapy techniques (Lambert & Barley, 2001). This means whatever theory or technique we want to implement in our social work intervention, we should pay special attention to those common factors in the intervention. There is a relatively recent argument that mindfulness can help us with those common factors mentioned above. Hick et al. (2010) have argued that “mindfulness may contribute to the development of the components of rapport, such as empathy, deep listening, and compassion.”

The literature review shows, recently there is considerable interest in writing thesis on mindfulness in Turkey’s universities, particularly after 2014. Nonetheless, the number is only 72 (by August 2019) and just two of them belong to social work discipline ("National Thesis Centre, YÖK," 2018). The main reason for emerging such a number is, perhaps, a lack of courses and education programs on mindfulness and not to introduce mindfulness practices to social work students. Even in developed countries, despite the compelling evidence that mindfulness training can offer potential benefits for social work, the reality is that many educators see such programs very time-consuming (on average, 24 hours for a mindfulness program), and consequently, difficult to integrate into social work crowded curriculum (Thomas, 2017). In developed countries, to fill this gap, several universities and organizations conduct mindfulness training workshops for social work students (for example, School of Social Work - Columbia University or Australian Association of Social Workers), or they try to design some brief versions of mindfulness training. Additionally, there are various online mindfulness courses designed to psychologist, counselors, psychiatrists, as well as social workers. In Turkey, by contrast, there was not found neither mindfulness training, brief version nor online course designed for social workers, at the time

of writing this thesis proposal. Therefore, there is a real need to design efficient workshops or online courses for social work discipline in Turkey.

1.2. AIM OF THE STUDY AND THE RESEARCH QUESTIONS

The aim of this doctoral thesis is to design a brief mindfulness program for social work students and to examine its effectiveness in two training module – a traditional classroom-based mindfulness course and an online version of the same course. The following questions will examine the effectiveness of those courses separately:

1. Does the program decrease depression levels among social work students?
2. Does the program decrease anxiety levels among social work students?
3. Does the program decrease stress levels among social work students?
4. Does the program improve self-compassion among social work students?
5. Does the program decrease rumination (repetitive, uncontrolled, and intrusive thoughts) levels among social work students?
6. Does the program increase mindfulness (state of being mindful) levels among social work students?
7. Does the program foster empathy among social work students?
8. Are the effects of the brief mindfulness intervention on depression, anxiety, stress, and empathy (if the intervention was effective) were mediated by variables of mindfulness, self-compassion, and rumination?

1.3. SIGNIFICANCE OF THIS STUDY

The importance of dealing with social worker self-care is one of the crucial matters so that this has turned out to be an ethical responsibility. “The ethical responsibility” of “National Association of Social Workers” (NASW) related to self-care is as follows:

> (a) Social workers should not allow their own personal problems, psychosocial distress, legal problems, substance abuse, or

> mental health difficulties to interfere with their professional judgment and performance or to jeopardize the best interests of people for whom they have a professional responsibility. (b) Social workers whose personal problems, psychosocial distress, legal problems, substance abuse, or mental health difficulties interfere with their professional judgment and performance should immediately seek consultation and take appropriate remedial action by seeking professional help, making adjustments in workload, terminating practice, or taking any other steps necessary to protect clients and others. (NASW, 2017, pp. 25-26)

NASW also states, “NASW supports the practice of professional self-care for social workers as a means of maintaining their competence, strengthening the profession, and preserving the integrity of their work with clients” and recommends including self-care in social work education (NASW, 2015, p. 270).

Therefore, in order to improve their own mental health, as well as fulfilling their professional/ethical responsibility, social workers should have a proper self-care practice.

Second, in working with clients, social workers must be competent. One of the six “ethical principles based on social work's core values” is about *competence*. This ethical principle mentioned as following:

> Social workers practice within their areas of competence and develop and enhance their professional expertise. Social workers continually strive to increase their professional knowledge and skills and to apply them in practice. Social workers should aspire to contribute to the knowledge base of the profession. (NASW, 2017, p. 6)

Additionally, “Social Workers’ Ethical Responsibilities as Professionals-Competence” requires that:

> (a) Social workers should accept responsibility or employment only on the basis of existing competence or the intention to acquire the necessary competence. (b) Social workers should strive to become and remain proficient in professional practice

> and the performance of professional functions. Social workers should critically examine and keep current with emerging knowledge relevant to social work. Social workers should routinely review the professional literature and participate in continuing education relevant to social work practice and social work ethics. (c) Social workers should base practice on recognized knowledge, including empirically based knowledge, relevant to social work and social work ethics. (NASW, 2017, p. 25)

Both the ethical principle and responsibility about *competence* mentioned above obligate social workers to consistently improve their professional knowledge and competence. It means they should acquire knowledge and skills, especially the latest and more efficient ones. By learning new practices, they can be more competent; their services would be more effective and time-saving.

Last not least, another key ethical principle is about “human relationships”, which is as follows:

> Social workers recognize the central importance of human relationships. Social workers understand that relationships between and among people are an important vehicle for change. Social workers engage people as partners in the helping process. Social workers seek to strengthen relationships among people in a purposeful effort to promote, restore, maintain, and enhance the well-being of individuals, families, social groups, organizations, and communities. (NASW, 2017, p. 6)

This ethical principle emphasizes the importance of human relationships in the change process. In other words, the quality of relationships can affect social work intervention process so that if the social worker cannot establish a good relationship (rapport) with her/his client, the success rate will be very low. Thus, to increase the effectiveness and quality of social work interventions, we should look after those factors such as empathy and compassion, which improve social worker-client relationships.

To sum up the arguments mentioned above, social work discipline needs to: a) take care of its professionals’ psychological health (self-care), b) upgrade their

knowledge and make them competent, and c) care about the quality of social worker-client relationships.

Mindfulness promisingly arises as one way of addressing those three problems above. It can use as a method of social workers' self-care practice, directly in their practice as an efficient and up-to-date intervention, and as a means of positively affect the helping or therapeutic relationship between social workers and the clients (Hick, 2009). Therefore, designing a brief, but effective version of a mindfulness training program for social work students is a worthy attempt, and this will be a valuable asset to the maturity and growth of social work practices in Turkey.

1.4. ASSUMPTIONS

In this study the assumptions are as follows:

- The questionnaires were valid and reliable for the Turkish population, and the data acquired from them accurately responded to the study's questions.
- Participants responded to the questionnaires accurately and honestly,
- Participants made an effort to learn and practice the designed brief mindfulness-based education program.

1.5. LIMITATIONS

Every study has some limitations. In this study, the following limitations were imposed:

- The study's results from the questionnaires were self-reported answers and participants' perception of their states of mind. Their actual state could be different; however, these self-report results can significantly be a reflection of their actual state of mind.

- The sample population was identified through convenience sampling from undergraduate social work program of Hacettepe University; therefore, generalizing the findings to different populations would be limited.
- The brief mindfulness-based training was presented by the researcher, and another mindfulness trainer could have provided dissimilar results.

1.6. STRENGTHS

The main strength of this research is to have an intervention research (quasi-experimental) design. According to Tuncay (2016), “this kind of research not only strengthens the scientific bases of social work profession but also increases the profession’s social acceptance and prestige levels.” This is because, after experimental design, quasi-experimental design is the most appropriate way for drawing causal conclusions, which means it can measure the results of an intervention and reveal to us whether a social work intervention is effective or not. This is why high-quality scientific journals pay special attention to print such researches. However, in spite of the widespread use of this research design in the international social work literature, the number is scarce in Turkey (Tuncay, 2016). The current research contribute to the evidence-based social work practices in Turkey.

1.7. DEFINITION OF TERMS

Mindfulness: In “A Dictionary of Social Work and Social Care*”* mindfulness is defined as, “Being fully present and aware of experiences by observing them as they occur, being non-judgmental and accepting what is happening in here and now” (Harris & White, 2018). The definition implies that mindfulness is a state of mind, ranging from not being mindful to being fully mindful (fully present and aware of the moment).

Mindfulness-based interventions: the interventions that include mindfulness practices in order to raise the level of participants’ state of mindfulness (dispositional mindfulness).

Traditional classroom-based mindfulness course: the course that uses a traditional classroom-based training to offer mindfulness interventions to the participants.

Online mindfulness course: the course that provides mindfulness interventions to the participants via the Internet, by using online methods such as video conferencing.

Self-care: Self-care is the activities that we do deliberately in order to take care of and promote both our psychological and physical health. In this doctoral thesis, the word of *self-care* was used only in terms of psychological self-care.

Stress: In “APA Dictionary of Psychology” stress is described as “the physiological or psychological response to internal or external stressors. Stress involves changes affecting nearly every system of the body, influencing how people feel and behave. For example, it may be manifested by palpitations, sweating, dry mouth, shortness of breath, fidgeting, accelerated speech, augmentation of negative emotions (if already being experienced), and longer duration of stress fatigue. Severe stress is manifested by the general adaptation syndrome. By causing these mind–body changes, stress contributes directly to psychological and physiological disorder and disease and affects mental and physical health, reducing quality of life.” (VandenBos, 2015).

Anxiety: Anxiety is defined as “an emotion characterized by apprehension and somatic symptoms of tension in which an individual anticipates impending danger, catastrophe, or misfortune. The body often mobilizes itself to meet the perceived threat: Muscles become tense, breathing is faster, and the heart beats more rapidly. Anxiety may be distinguished from fear both conceptually and physiologically, although the two terms are often used interchangeably. Anxiety is considered a future-oriented, long-acting response broadly focused on a diffuse threat, whereas fear is an appropriate, present-oriented, and short-lived response to a clearly identifiable and specific threat” (VandenBos, 2015).

Depression: According to “APA Dictionary of Psychology*”* Depression is “a negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism, and despondency, that interferes with daily life. Various physical, cognitive, and social changes also tend to co-occur, including altered eating or sleeping habits, lack of energy or motivation, difficulty concentrating or making decisions, and withdrawal from social activities. It is symptomatic of a number of mental health disorders” (VandenBos, 2015). In this thesis, depression is not considered as a disorder (for example, “major depression disorder”), but as a state of mood and its levels of severity.

Rumination: A repetitive thinking pattern that interfere with other mental activities, especially rational thinking. Rumination is linked to both depression and anxiety.

Empathy: according to “The Social Work Dictionary*”* empathy is "the act of perceiving, understanding, experiencing, and responding to the emotional state and ideas of another person" (Barker, 2014).

Self-compassion: Kristin Neff, the first academic introduced the term of self-compassion to the literature, describes self-compassion as “being touched by and open to one’s own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one’s suffering and to heal oneself with kindness. Self-compassion also involves offering nonjudgmental understanding to one’s pain, inadequacies and failures, so that one’s experience is seen as part of the larger human experience” (Neff, 2003b).

CHAPTER 2: REVIEW OF LITERATURE

2.1. MINDFULNESS

The word of *mindfulness* was first used in English translations of Buddha's (Siddhartha Gautama) texts (originally written in Pali language) as a translation to the word *sati* (सति). In Pali language, sati means *awareness* and *attention*, as well as *remembering*. Awareness is about being aware of the present moment and being conscious of it and anything arises at this moment. Attention is the effort we make to bring our awareness to this moment and, in fact, by paying attention we reach to the first element, i.e. awareness. However, the third element means somehow unusual to the expected meaning of the word of remembering. Here, remembering is not to remember past events or memories but remember the first element (the awareness) whenever we lost in the past or future. In other words, once we realize that we are not aware, we remember to return the attention and redirect it to the moment.

Although mindfulness comes from Buddhist traditions, many other religions such as Islam, Christianity and Judaism also have some kind of mindfulness practices for itself (Trousselard, Steiler, Claverie, & Canini, 2014). Nonetheless, western mindfulness predominantly comes from Buddhism tradition and the pioneers of modern mindfulness in the West (such as Jon Kabat-Zinn, Sharon Salzberg, and Joseph Goldstein) brought it to their practices from that tradition.

2.1.1. Why Mindfulness?

Over the millennia, many cultures developed at least some kind of mindfulness practices for themselves, but why? Why did they feel such a need to develop those practices? To have a better comprehension of mindfulness, in my opinion, after a quick explanation of where it comes from, answering the reason it comes for is absolutely necessary (in the mindfulness sessions directed by me, I always

start with this concept). Thereby, the participants can realize the importance of mindfulness and how it can help them.

Over the millennia, besides religious purposes, for which people perform practices like mindfulness, another important factor that necessitates people to do such practices is to alleviate and cure psychological distress. Below, I discuss psychological distress, and in fact, our evolutionary tendency to such distress, and how mindfulness can help with this issue.

2.1.1.1. Our Tendency to Psychological Distress

Happiness is apparently something hard to achieve and something miraculous. We tend to be psychologically distressed as if we like it to be so. As if our mind is built to be unhappy, but is it really true? Evolutionary psychologists believe it can be really true. They argue that “The problem may be that we did not evolve to be happy” (Siegel, 2010, p. 4). The evolutional process does not care about happiness. It rather cares about whether we successfully reproduce or not, whether we survive long enough to bread and transfer our DNA and raise our children. Dr. Ronald D. Siegel, a psychology professor at Harvard Medical School, points out that “certain instincts and intellectual abilities that have helped our species prosper over the past few million years have created some pretty negative consequences for us as individuals” (Siegel, 2010, p. 4). Thereby, he emphasizes on some factors that human being have developed over the years for survival purposes, however, they also make us prone to psychological distress. He indicates some of these factors as *negativity bias*, *the difficulty of accepting change*, *constantly comparing ourselves with others*, and *experiential avoidance*. Below, I discuss these interrelated factors that are also very important subjects in teaching mindfulness.

Negativity Bias

Negativity bias is to favor negative events over the positive ones, and even to retrieve such experiences much frequently than the positive ones; in fact, we

evaluate events with a bias in favor of negative ones. Negative events are much more important to us because this is a matter of survival (Rozin & Royzman, 2001). For example, imagine our ancestors thousands of years ago, who would go to hunt, where there were many other dangerous hunters such as lions seeing humans as preys. While hunting, they would see a beige object that can be either a lion or a rock. They could go ahead, and it could be just a rock, but if the object were a lion they would be killed. Therefore, they had to think rather negatively than positively and assume that the object was a lion. Our ancestors (just like us) did not have wonderful eyes like an eagle, or a nose like a dog to discover the fact of the beige object; they could wonderfully think about the events, nevertheless, in a pessimistic manner. This kind of thinking pattern would cost them starvation but also a much lower probability of death compared to fighting against a lion.

We have inherited the negativity bias from our ancestors so that we strongly tend to consider more negative sides of an event. In a study done by Hamlin, Wynn, and Bloom (2010), the researchers concluded that even three-month-old infants have a negative bias towards social information so that, for the infants, negative information is privileged against positive. If we also check out ourselves, we can simply realize how sensitive we are towards negative information. For instance, while shopping online, we tend to read first negative comments about the shopping item. We consciously or unconsciously think like this: “I should find out about the negative sides because they would bother me later, not the positive ones”.

Although the negativity bias has performed an essential function in the survival of human beings, it has also cost them psychological distress such as stress or anxiety (Korn, Sharot, Walter, Heekeren, & Dolan, 2013; Shook, Fazio, & Vasey, 2007; Watters & Williams, 2011). As Doctor Rick Hanson, a well-known psychologist and an expert in neuroplasticity (the brain’s ability to change, modify, and adapt), points out: “the brain is like Velcro for negative experiences, but Teflon for positive ones” (Hanson, Mendius, Kornfield, & Siegel, 2009, p. 41). It

means positive experiences and thoughts slide out of our mind, but the negative ones stick. This is how the negativity bias causes some problems. Thinking about negative events occurred in the past, over and over (rumination), and making negative assumptions about the future are among the main causes of mental disorders (especially depression and anxiety).

The adverse effect of negativity bias on mental health is one of the most noteworthy reasons that, over the years, people developed practices like mindfulness. Mindfulness trains the participants to make their minds more slippery for negative experiences. By practice, they improve their attitudes towards the events, and let the negatives go out of their minds. Mindfulness teach them that they do not have to stick to every thought as if their survival depends on it. Nowadays, the effect of mindfulness in reducing negativity bias, and consequently decreasing psychological distress, has been backed up by research (Ford & Shook, 2019; Hafenbrack, Kinias, & Barsade, 2013; Kiken & Shook, 2011, 2012, 2014).

The Difficulty of Accepting Change

Change has always been distressing for people. They want to continue the way they trust and have control over it. In other words, the longer a condition is there, the preferable it is evaluated (Eidelman, Pattershall, & Crandall, 2010); so when their preferable condition starts to change, they would feel anxious and stressed. They realize that they will experience unknown condition they do not have control over it like they have over the past ones. They think they encounter many unknown situations, and maybe, they cannot deal with them. These all are distressing.

The changes such as going to school or marriage are exciting but also distressing; however, changes such as losing a beloved one or finding out about diagnosing with cancer are definitely disturbing. Nevertheless, we have usually

forgotten that many of these changes are inevitable, and we resist these changes, but this resistance causes us significant unhappiness (Siegel, 2010, p. 7).

One of the main elements of mindfulness is the acceptance that can help with the change. By accepting the changes occurring in our lives, instead of resisting, we can embrace them and see them as inevitable difficulties that come and go. For example, when a change such as loss of a beloved one comes to us, mindfulness teaches us to accept the loss and sadness, and grief. After acceptance, the sadness or grief passes, otherwise it will change into depression. In fact, mindfulness emphasize that in this condition sadness is quite normal, but being stuck in there (depression) is not.

Constantly Comparing Ourselves with Others

Looking at nature, we can realize that all living things want to be the best among their own kind (even against other kinds). For example, every monkey in their group wants to be the most powerful and attractive one. This is because by power and attractiveness they can access more food, mate, and consequently higher chance of survival and transmitting their DNA. Human beings are not much different from other primates in this instinct. We want to be the best and the perfect one, and constantly compare ourselves with others. Who is more beautiful, powerful, cool, smart, knowledgeable, and many others? We may be superior to many people, but inferior to many others as well.

Continuously comparing with others is indeed an important factor for human being to develop themselves. By comparing themselves to other people, communities, or countries, they improve themselves to be in a superior position, and if it had not been for this comparisons (and competitions), there might not have been much development in human being history. However, it costs us a lot of pain and exhaustion so that the more comparison, the more psychological distress.

Mindfulness teaches participants to acknowledge and accept themselves as they are and to realize that no one is perfect. However, it does not mean that they simply accept everything as it is and do nothing to change and grow themselves. In fact, mindfulness trains, after accepting themselves, they start to develop and improve themselves, but they do not have to compare themselves with others, and if they do, they should accept the fact that there will always be someone better. Research support that mindfulness helps participants to alleviate their perfectionism (Williams, 2008); therefore, decreasing the psychological distress.

Experiential avoidance

Another important factor in emerging mindfulness is the avoidance of stressful experiences. Human being (like other animals) do not like stressful experiences because it causes them discomfort. We all like to be distracted when something stressful bothers us. For example, many people drink alcohol when they want to avoid dealing with a stressful situation such as losing their job, failing an exam or ending a romantic relationship. If they do this in a limited way, there is not a problem; after a while, they continue living their life by dealing the problems (for example, they search for a new job, or retake the exam). However, many people cannot stop avoiding the problem. They continue consuming alcohol, and therefore having drug abuse problem.

Giving another example, some individuals have trouble in giving a speech in front of a big (or even small) audience. They may avoid the speech continuously, and consequently, never achieve their goal. However, if they confront the stress of giving the speech, they can speak in spite of the stress.

Mindfulness encourages participants, who their avoidance cause problem in their life, to encounter their stress, and also see stress as something that comes and goes, without making judgments (such as this stress is terrible or unbearable). By avoiding the situation, the stress fades temporarily, but not permanently; It comes back later even greater. The research has back up the reducing effects of

mindfulness on experiential avoidance (Parsons, Dreyer-Oren, Magee, & Clerkin, 2019).

2.1.2. What Is Mindfulness Today?

As western practitioners found out about that helping benefits of mindfulness, they incorporated it into their practices. Although mindfulness still continues with its religious origin in some form of practices even in the West, the modern mindfulness has become completely a secular practice. It has become a psychological technique for training minds, as Kabat-Zinn states: "…mindfulness is not a concept, it is not a good idea, it is not a philosophy, and it's not a catechism. It is a way of being, but it requires practice" (Kabat-Zinn, 2016).

Therefore, from a Western perspective and as a psychological technique, mindfulness has been defined as an attention directing technique while making no judgments and reactions to the occurrences (thoughts or emotions) happening at the present moment (Kabat-Zinn, 2013; Linehan, 1993). Bishop et al. (2004) proposed a useful "operational definition of mindfulness" by separating mindfulness into two segments: "**1) self-regulation of attention** and **2) orientation to experience."**

The first one is about remaining focused on present moment experiences so that whenever the attention wanders, you return it to the present moment, then it wanders again, but you return it again and so on; this is called "self-regulation of attention" (Bishop et al., 2004). The second one is the attitudinal component of mindfulness and it is to be *observant*, *open* and *curious* towards arising experiences as well as *accepting* them (Bishop et al., 2004). Kabat-Zinn (2013) has suggested seven fundamental attitudes in cultivating mindfulness: a) taking *non-judgmental attitude* towards experiences, b) being *patient*, c) like a child, having a beginner's mind, and observing things as though you see them for the first time, d) *trusting yourself*, e) having *non-striving attitude*, which means trying less and being more, f) *accepting* and seeing things as they are, as the life offers

you, and g) *letting go* of, especially certain thoughts, situations and feelings that your mind likes to hold on to them.

To sum up the definitions above, it can be said mindfulness is a collection of skills someone intentionally applies in order to be more mindful. To be mindful means to be more aware of and intent on the experiences that occur at the moment, such as thoughts and emotions. It means to take control of the mind from the automatic pilot, which it takes control of our most activities (such as automatic eating), so be aware of what is occurring at the moment. Moreover, mindfulness is to be nonjudgmental towards those experiences, and in fact, just to observe them with an acceptant perspective. It is totally a *secular and also teachable/learnable collection of skills*. The word of *cultivation* (to develop and improve a set of skills by labor, care, or study) is usually being used for learning mindfulness because it takes a little bit time to develop qualities such as being nonjudgmental or having an acceptant attitude towards many unpleasant and disturbing experiences.

2.1.3. Positive Effects of Mindfulness

Empirical evidence has shown there is a positive relationship between the level of being mindful and well-being (Carmody & Baer, 2008). This is why mindfulness-based approaches use mindfulness skills described above to increase their clients' level of mindfulness. Mindfulness-based interventions, by giving regular practices of mindfulness techniques, try to make clients more mindful in their lives, and consequently, improve not only their psychological health but also their overall quality of life. Over the past three decades, researches have shown these interventions' effectiveness in many areas such as depression, anxiety, stress, post-traumatic stress disorder, substance use, and abuse, or chronic pain (e.g. Abbott et al., 2014; Hosseinzadeh Asl & Barahmand, 2014; Hosseinzadeh Asl & Hosseinalipour, 2014; Bassam Khoury et al., 2017; B. Khoury et al., 2015; Zainal et al., 2013), and this is why mindfulness has become a hot topic around the world.

Additionally, researches examining neurological aspects of mindfulness have shown that mindfulness increases the activity of *left-sided anterior* of the brain, the area associated with positive emotions, and quite contrary, decrease the activity of amygdala (two almond-shape parts located deep in the brain), responsible for intense emotions such as fear (Herwig, Kaffenberger, Jäncke, & Brühl, 2010; Lutz et al., 2013). When the amygdala is highly active, the *fly, fight, or freeze* mechanism (survivor mechanism) is activated, so the person acts on her/his instinct, automatically, without a problem solving perspective. Therefore, by increasing the left-sided anterior activity, the person feels more positive emotions, and by decreasing the amygdala, he feels less tense and can think clearer with a problem solving perspective.

2.1.4. How to Do Mindfulness

Mindfulness-based interventions apply mindfulness in formal and informal forms. Formal mindfulness includes mindfulness meditation, in which participants sit on a cushion or chair and it takes approximately 45 minutes. In mindfulness meditation, participants are not necessarily required to take a special meditative posture (Full Lotus, Half Lotus, or Burmese), which may seem strange to many Western cultures (including Turkish culture). They can just sit still on a chair, in a quiet place, with a comfortable position and a straight spine.

In mindfulness meditation, meditators usually direct their attention towards a special sensation such as breath (on their abdomen or around their nose) or a bell sound. This sensation is used as an anchor to remain at this moment. However, their mind wanders into thoughts or emotions while making judgments (such as “this is a bad thought or emotion”). They are encouraged to notice this wandering, acknowledge it, not make judgments, just observe anything arises, and gently redirect their attention to the anchor (breath or bell sound), so return to the present moment and let the though/emotions go. However, after a while, their mind wanders again and those though/emotions come back. Nevertheless,

they return their attention to the anchor again and let the thoughts/emotions go. They do this self-regulation again and again; this is the mindfulness meditation.

Many refer to wandering mind as *monkey mind* because of its wandering nature. The mind jumps from a topic onto another topic just like a monkey that jumps from a branch onto another branch. However, this jumping is completely normal for a monkey; it is its very nature. In mindfulness meditation, the participants acknowledge this wandering/jumping nature of their mind and every time they bring it back to the anchor again, without making any judgment.

There are also informal forms of mindfulness such as walking, bathing or eating mindfully. By these mindfulness exercises, they try to teach participants to apply mindfulness to their routine life so that they become more mindful of what they do and stay in the present moment. In an outstanding study done by Killingsworth and Gilbert (2010) about happiness, researchers developed a phone app that paged participants throughout the day and would ask them three questions: “What are you doing right now?”, “How are you feeling right now?”, and “Are you thinking about something other than what you’re currently doing?” The results showed what they do does not predict how they felt, in fact, where their attention was did predict their feelings. For instance, when the app paged them, if individuals were washing the dishes and their attention was on the washing the dishes, they were happier than people who were eating their favorite meal and thinking about something else. In other words, what does matter for happiness is that when you are doing something, your attention is also on this activity at this moment. The researchers concluded that “a human mind is a wandering mind, and a wandering mind is an unhappy mind.” In mindfulness training, the purpose is to train participants to redirect this wandering and attend to the present moment.

For making an example of applying mindfulness, imagine a direct services social worker who works in social service center dealing with cases such as child abuse or negligence, domestic violence or poverty. Dealing with these cases itself

imposes stress on the worker. In addition to this stress, s/he try to manage the case “in the best interest of the clients”, but in many cases s/he has to compromise something such as taking the custody of the child from the parents. These would add to the worker’s stress so that the worker may struggle with emotions of sadness or anger, or negative and repetitive thoughts such as “I hate that aggressive cruel man”, “the pain that woman suffers is just too mush”, or “I shouldn’t have taken the custody”.

For the social worker described above, mindfulness trains her/him, instead of avoiding those though/emotions, accept and just observe them without making judgments, let them come and go. For example, when the thought of “I hate that aggressive cruel man” arises, s/he observes it as if s/he sees it for the first time. Instead of making judgments such as “he is so bad or evil”, s/he learns to just watch the thought and gently return the attention to the anchor (breath or a bell sound), and so let the thought go. By doing this, s/he realize that this is just a thought that comes and go. S/he has not to believe the thought and to become entangle in it, making the social worker be released from the burden of those thoughts, leading to better state of mind.

2.1.5. How Mindfulness Works

Although researches on mindfulness’s working mechanisms that how it works and improves mental health are relatively new and not enough, Roemer and Orsillo (2010) have proposed three mechanisms, which are reasonable and noteworthy to mention. They argued that mindfulness affects mental health in three ways:

1) It changes participants’ relationship with their internal experiences such as thoughts, emotions, or sensations. Mindfulness alters the way they engage with these internal phenomena so that, instead of becoming entangled with them, participants rather become observant, nonreactive, compassionate, and nonjudgmental.

2) Mindfulness affects avoidance of internal experiences. Mindfulness decreases maladaptive avoidance, in which the person intends to avoid unpleasant thoughts or emotions, thus reducing the “impulsive and emotion-driven” behavior.
3) The changes in internal experiences encourage more behavioral engagement and acting to reach the participant’s desired goals, even if the unpleasant thoughts and emotions push her/him away from the engagement.

Additionally, mindfulness reduce rumination, (Campbell, Labelle, Bacon, Faris, & Carlson, 2012), which has a negative relationship with mental health (Nolen-Hoeksema, 2000). On the other hand, mindfulness and self-compassion, which positively correlates with mental health (Neff, Rude, & Kirkpatrick, 2007), are closely related, and as a mindfulness practice develops, they can facilitate each other (Baer, Lykins, & Peters, 2012). In other words, reducing rumination and increasing self-compassion as the result of practicing mindfulness can be the other working mechanisms of mindfulness in enhancing psychological health. Nevertheless, more research is needed to reach a better understanding of these mechanisms.

2.1.6. Doubts and Concerns about Mindfulness

There are some doubts about the efficacy and concerns about potential adverse effects of mindfulness. Some maintain that we should consider individual differences of participants. Mindfulness is not for some people, and it may be true. Some people do not find mindfulness meditation useful for easing their problems, or it even can have some adverse effects on them; for example, remembering a childhood trauma that was forgotten, and maybe, it should not have been remembered at all. This is why the quality of a mindfulness teacher is particularly important. S/he should have formal training in mental health areas and the ability to tackle such difficulties (Farias & Wikholm, 2016).

Others argue how is it possible just to accept everything that life offers us and do not strive? In this way, human beings would be passive and lazy. If we just sit there and meditate for hours, when do we work to achieve our life goals? In the modern era, for many people just observing the experiences that occur at this moment without making judgments and accept whatever comes to them may not make sense. They want to change everything unpleasant and they cannot just accept them so easily. In mindfulness, acceptance is a little bit elusive word and participants may misunderstand it.

Acceptance is not about accepting anything without making any change. Modern mindfulness is accepting whatever you have but also committed to the change by using all you have. Life gives you something depriving, a disadvantage; you first accept that. For example, your family is poor, your father is an alcoholic, or you lost one of your supportive parents last year. Mindfulness teaches you to accept this condition and accept that you are poor or you do not have supportive parents now. However, after acceptance, you stop asking the questions starting with why (such as “why did this happen to me?”) and stop blaming and judging everyone especially yourself. Struggling with those questions over and over is not the problem-solving process; it is *rumination* (thinking over and over without helping to solve the problem), which is related to anger, depression and stress. You cannot think clearly when you are depressed or stressed. Therefore, after acceptance, your mind is now ready to make plans for the change. At this point, you start to think more clearly, see your strengths, and use them to develop and grow.

For a simpler example, imagine you suffer from toothache. There are several types of research indicated mindfulness can relief pain (Hilton et al., 2016). However, in modern mindfulness, it does not make sense to sit there and meditate for long hours to ease your pain. You first make an appointment from a dentist, and until the time of your appointment, you can meditate or take some pain killers; it is up to you. The important part is making the appointment regardless of your dental fear (if there is such fear).

2.2. MINDFULNESS-BASED INTERVENTIONS

As I mentioned earlier, mindfulness is a way of training participants' minds. Because of its potential benefits, academics started to integrate it into their practices, thus rising mindfulness-based approaches. Some describe these approaches as "third-wave of cognitive-behavior therapies." The first and second ones are "behavior therapy" and "cognitive-behavior therapy," respectively; the third wave emerges as mindfulness-based interventions. There are recently several of these interventions; nevertheless, four best empirically supported ones are "mindfulness-based stress reduction" (MBSR; Kabat-Zinn, 1982, 2013), "mindfulness-based cognitive therapy" (MBCT; Segal, Williams, & Teasdale, 2013), "dialectical behavior therapy" (DBT; Linehan, 1993), and "acceptance and commitment therapy" (ACT; Hayes, Strosahl, & Wilson, 2009). MBSR and MBCT are explained in this chapter because the intervention proposed in this doctoral dissertation is based on both MBSR (as the first mindfulness-based intervention) and MBCT.

2.2.1. Mindfulness-Based Stress Reduction (MBSR)

MBSR, created by Jon Kabat-Zinn (Kabat-Zinn, 1982, 2013), intensively based on mindfulness meditation, is the first mindfulness-based intervention, and it was firstly designed for patients with stress-related conditions, especially chronic pain. It usually consists of eight-week classes that last 2.5 to 3 hours, once a week. In sessions, participants perform mindfulness meditation, they learn about theoretical fundamentals of mindfulness and stress, and there is class discussions. During the sixth week, there is also a daylong session of intensive mindfulness retreat. Homework are an important part of MBSR program, in which participants practice forty-five minutes mindfulness practices. Up to 30 individuals with a wide range of mental and physical problems (depression, stress, anxiety, and chronic pain or illness such as cancer) can participate in classes. By this, it is emphasizing that all individuals by using mindfulness practices, regardless of their problems, can train and change their internal states, and can cultivate present moment awareness, thus easing their problems. There is no need to have

a prior experience of meditation, but participants are expected to be committed to the program and they are screened for their engagement (Baer, 2014; Rosenbaum, 2014).

2.2.1.1. The MBSR Exercises

Raisin Exercise

The first exercise participants perform in MBSR is practicing mindfulness by observing and experiencing the raisins as the experiential anchor. In first class, the instructor gives everyone a few raisin and ask them to look at the raisins as they are, simply observe them as if they see something new, with curiosity, and just like an infant looking at those raisins for the first time in her/his life, and having no idea of what it is. With such observation, in fact, they are practicing to make no judgments about raisins; such as “it tastes sweet”, “I like it, or not”, or any other judgments.

Participants first hold the raisins in their palms and observe the qualities such as the texture and smell. Then, they start to put them in their mouth slowly, bite it and feel the taste, while they feel the whole process. The instructor encourages them to attend here and at this moment of eating the raisins, and if their mind jumps onto the thoughts or emotions, they acknowledge it, without any judgments (such as “I couldn’t do it” or “I did it wrong again”) bring it back to the sensations of the raisins.

This exercise helps participants to eat mindfully after the first session of MBST, so expanding the raisin meditation to their life. They eat their meals more mindfully so that when they eat, their attention is on eating, not on something else. This mindful eating tends to increase the sensation of tastes and flavors (Baer, 2014), as well as happiness (Killingsworth & Gilbert, 2010).

However, in some clients, especially in economically disadvantaged groups, raisin exercise can cause severe toothaches because of clients’ several cavities

and tooth decays. Therefore, social workers should consider this issue and think about other alternatives to raisin. They can use some cookies that are not so sweet, or even small pieces of chees.

Body Scan

Body scan is the first formal mindfulness meditation exercise, in which participants slowly scan their body from their feet up through the head, and it usually takes about forty minutes. They can lie on their back or sit on a chair comfortably, with closed eyes. They concentrate on their body parts by paying attention to their sensations; for example, senses of pressure or moisture on their feet felt in the shoes. They continue to pay attention to such senses, but their mind wanders, and when they notice it, they gently and nonjudgmentally bring it back. Participants perform this exercise during the first, second, and eighth sessions, as well as for their homework during the first four weeks.

The body scan exercise helps participants to practice some essential mindfulness skills. They learn to notice the wandering of the attention and directing (and redirecting) it to the present moment, and they learn to do it deliberately, on purpose, in a particular way. While doing this, they are also non-judgmental, curious, accepting, and open about their body experience (Baer, 2014; Kabat-Zinn, 2013).

The body scan can be inappropriate for some clients, especially for sexual and physical abuse survivors, because the scanning of body parts can be triggering. Thus, we should be cautious and consider the individual characteristics of clients (Boyd, Lanius, & McKinnon, 2018). Social workers can skip this practice and use some alternatives instead.

Sitting Meditation

As a formal mindfulness meditation, sitting meditation is performed during sessions two through seven, and it can last 10 to 45 minutes. Sitting meditation

is also one of the most important homework assignments, which many mindfulness teachers believe it is necessary for the practice.

Like body scan, in sitting meditation, participants sit on a cushion or a chair comfortably, with a straight spine. However, in this meditation, instead of their body, they pay attention to a sensory experience such as the sound of a bell or the sense of their breath, which is felt in the abdomen or around the nose. Mindfulness instructors suggest that it is preferable to close the eyes or, if opened, they should look downwards, otherwise they look around and easily be distracted. In this meditation, as participants direct their attention to their breath or the bell sound, inevitably, their attention wanders and they notice it and bring it back. Similarly to other mindfulness practices, they make no judgments, with accepting opinion, and openness.

After a while, they are encouraged to direct their attention to the thoughts/emotions coming by. They practice looking at them as if they are clouds that are coming and going. They simply observe those clouds without making judgments. They gradually learn to not become entangled with them and to let them go. Finally, participants in later sessions pay attention to anything that arises, such as any thought or emotion; sensations such as pain, itch or discomfort; and sounds. By now, they should be able to look at them nonjudgmentally and let them go without sticking to them.

Yoga meditation

Yoga (gentle Hatha yoga) is used as a mindfulness exercise during session three, and as a homework assignment for weeks of three to six. In this exercise, which can last about 45 minutes, while participants perform some slow yoga movements, they concentrate their attention on their body and its movements. They keep just observing the sense of stretching and holding a position, that how they feel these changes in their body. Although mindfulness yoga is not practiced as a physical exercise, it may increase the strength of the body too. Nevertheless,

participants must do it as a meditation, pay attention to the changes nonjudgmentally, and accept their body limits in doing those movements exercise. The body scan is especially useful for clients that become bored or sleepy during the sitting and body scan meditations.

Yoga meditation can be difficult for disabled clients, and there should be some adjustments to the techniques. For example, it can be done in a wheelchair with some gentle movements of arms. Therefore, social workers should seek technical assistance from yoga or physical activity professionals.

Walking Meditation

This is another formal mindfulness meditation that can be introduced to participants in the third session or later. In walking meditation, like the other exercises, participants practice being aware of their sensations, thereby anchor themselves in the present moment. They pay attention to the sense of walking in their feet, and then the whole body during the walking. In fact, the anchor of the attention is this sense of walking so that whenever their mind wanders, they bring it back to this sense.

This exercise is one of the important mindfulness meditations because it can be an alternative for other ones if participants do not prefer performing them. Moreover, they can incorporate it into the clients' daily lives, and for example, while walking to work or shopping, they become more aware of their environment and the present moment.

Some Other Activities in MBSR

There are some other elements to promote the state of mindfulness in participants; here, I briefly describe them.

In MBSR, in addition to formal meditation techniques, there are some additional informal exercises. The participants perform their everyday activities such as

dishwashing, eating, driving, tooth brushing, gardening, and some other activities; however, the key is that they must do them mindfully, not automatically. By exercising these activities, MBSR teach the individuals to take control of their life from their automatic pilot, which controls their mind when they are not aware of the present moment (such as eating automatically while we are thinking about tomorrow's meeting with the boss). By learning to be present at the moment, participants are less stressed and depressed, and learn to deal with difficult situations much effectively; with a problem-solving approach instead of acting on a fly, fight, or freeze mechanism.

Some other elements are *inquiry*, in which group discussions take place; *homework*; making a calendar of pleasant and unpleasant events for *monitoring the events*; using *poetry and metaphors* (for instance, "The Guest House", by Mevlana Celaddiin-i Rumi) for a better understanding of mindfulness; and a session of *all-day meditation* (6 to 8 hours) (Baer, 2014).

Another activity, and a form of meditation, is *loving-kindness meditation*, in which participants practice cultivating attitudes of kindness to themselves and also others, even the people they do not like. It is usually practiced in all-day meditation; however, all MBSR programs do not incorporate this kind of meditation.

2.2.2. Mindfulness-Based Cognitive Therapy (MBCT)

MBCT, developed by Segal et al. (2013), is mostly based on MBSR; however, as can be seen from its title, it also incorporates some elements of cognitive therapy. The primary purpose of MBCT was to prevent major depression relapse for the people who are not in depression episodes at the moment. However, over the years, it has been shown that even clients with active depression or anxiety can gain benefit from MBCT (Sipe & Eisendrath, 2012; Stange et al., 2011).

MBCT applies MBSR's formal mindfulness exercises such as "raisin exercise", "body scan", "sitting, yoga, and walking meditations", as well as informal ones such as mindfully washing the dishes, eating, driving, tooth brushing, or gardening. There are also some educational contents, however, Instead of stress, the contents are more about depression. MBCT use some poetry and metaphors (such as "The Guest House" as they use it in MBSR) in order to simplify mindfulness practices.

MBCT is an 8-week intervention with weekly sessions of about 2-hour length. In early sessions, participants are guided to bring their attention to the breath or body sensations. Gradually in the later sessions, they practice on the mental experiences such as thoughts and emotions so that they observe them mindfully instead of avoiding them. Homework is also an important part of the intervention, and it is comprised of about 45 minutes of formal mindfulness meditations such as sitting or body scan meditations, as well as informal exercises during the day.

2.2.2.1. The MBCT Exercises

As can be seen from the above, MBSR and MBCT share various mindfulness exercises, so in the next section, I only explain the additional practices that are specific to MBCT.

Three-Minute Breathing Space

This exercise benefits the participants to be aware of the present moment and be mindful amid the hustle and bustle of their daily life; therefore, taking back the control from the automatic pilot. This exercise (also known as a "mini-meditation") consists of three one-minute steps. 1) The person pays attention to her/his internal events, and the body sensations non-judgmentally. During this first one minute, the important task is to answer the question of "What am I experiencing or feel right now?", and thus, bring the attention to this moment. 2) In the second one-minute step they focus the attention on the breath. This brings the awareness even more to the present moment. 3) In the last minute the attention is expanded

to the whole body such as facial expression and body's posture, without making judgment about them; for example if they notice any frown on their face, they try to make no judgments such as "because of this frowned ugly face, I am a terrible person at work".

In MBCT, participants are encouraged to regularly practice this mini-meditation exercise during the days, especially in stressful conditions. Although it can be a relaxing exercise, its main purpose is to realize the autopilot and take the control back from it. Therefore, it can be also stressful because sometimes the person realize that the autopilot avoid a situation that needs to be dealt. For example, a social worker in order to not to go to a slum area, automatically avoids a client's case who lives there. When paying attention to the present moment and realizing the avoidance, s/he feels stressed, but s/he knows the commitment to social work ethical principles; therefore, without acting on autopilot, s/he acts by her/himself, confronts the stress, makes no judgments, can see more options with a problem solving perspective, and eventually deal with the client's case.

Deliberately Letting Difficulties in

In this exercise, which is incorporated into sitting meditation in fifth session, participants are encouraged to bring some difficulties to the mind. The purpose is to train the participants to notice the avoidance of unpleasant experiences and learn to accept them just as they are; the purpose is not get rid of them. When an unpleasant thought comes to the mind, instead of judging it negatively, they just watch and notice what happens in their body and how they feel. Then, they train to cultivate the acceptance; however, the instructors tell them that acceptance is not going to be easy to achieve. They should give themselves time, and especially when they notice that they cannot accept the difficulties, they should not judge themselves (such as "I'm a bad meditator, I can't accept the difficulties, but everyone can").

In this exercise, the participants bring the certain adverse thoughts to the mind and learn to do what the poem “The Guest House” (see chapter 1 – introduction) tells them; seeing the thoughts/emotions or feelings as guests and allowing them in, with an openness and acceptance. The participants are encouraged to say: “It’s OK. Whatever it is, it’s OK. Let me be open to this” (Segal et al., 2013). This expression reminds them to let the guests in and accept them whatever they are, but on the other hand, continue to breath in and out. In fact, they learn to continue to meditate (and live) even in the presence of these guests. However, Segal et al. (2013) emphasize “remember that, by saying ‘It’s already here’ or ‘It’s OK,’ you are not judging the original situation or saying that everything’s fine, but simply helping your awareness, right now, to remain open to the sensations in the body.”

Thoughts and Feelings Exercise

This exercise is one of MBCT’s cognitive therapy practices. In this exercise, the ABC model, which is a main feature in “cognitive-behavioral therapy” (CBT), is taught to the participants. They learn to notice the relationships between a situation (A), an interpretation/thought (B), and a feeling/emotion (C).

Individuals usually do not realize that between A and C, there is B that links them together. For example, when we call a friend and s/he does not answer the phone, we become upset. If we pay attention to the thought shaped in our mind just before feeling upset, we realize there are thoughts such as “s/he does not like me”, “maybe, I’ve done something bad”, or “I am probably not a nice person at all”. These thoughts, therefore, leads to a feeling of sadness. However, if there are positive thoughts such as “s/he is maybe not able to answer the phone”, or s/he left the phone on the silent mode”, the feeling is not going to be negative. By noticing this link, they can realize the importance of thoughts and their effects on emotions so that by changing the thoughts, feelings also change.

On the other hand, when our mood is down, our interpretation/thoughts can be quite negative and distorted. In example mentioned above, if we are depressed, we are very likely to have much negative interpretations than the positive ones. We interpret every event as an evidence of our current depressed condition. We say: “I’m sure s/he doesn’t like me”, “Definitely I did something wrong, because this is what I’m”, and “Of course nobody should like me at all”.

By practicing the exercise of thoughts and feelings, the participants understand that although the thoughts are important, yet they are just thoughts, but not facts. These often invisible string of thoughts can start or trigger automatic negative interpretation of the life events, thereby leading to an active depression. On the other hand, our mood can affect these thoughts negatively. MBCT wants to train participants to notice this interaction between the thoughts and feelings (mood) so that they earn greater freedom against the automatic negative thoughts, and not become trapped by those thoughts. They can gradually (but not suddenly) acknowledge that, especially when their mood is down, do not trust the thoughts that pop into their mind; just observe them, accept them and let them go.

Discussion of Automatic Negative Thoughts

In this exercise, which is a cognitive therapy practice, the automatic negative thoughts that mostly occur during an episode of depression are discussed. “The Automatic Thoughts Questionnaire” created by Hollon and Kendall (1980) is used to indicate and discuss the thoughts such as “I’m no good”, “Why can’t I ever succeed?”, and “I’m so weak.” The purpose here is to help the participants to recognize these universal thought patterns of depression when they come to mind, and see them just as symptoms of depression, not the participants’ own real thoughts or true statements. Segal et al. (2013) mentioned as following:

> When depressed, we unquestioningly accept negative thoughts as personally valid truths about us as individuals. Yet they are actually universal features of the state of depression. They are symptoms of the illness, just as much as disturbed appetite and sleep are symptoms of the illness. (p. 268)

Moods, Thoughts, and Alternative Viewpoints Exercise

This practice is another cognitive therapy exercise of MBCT. The participants are given a sheet of paper with two different stories; one on the front and another on the back of the paper. In the first scenario, they imagine they have a quarrel at work, and they are pretty upset because of this experience. While they are still feeling down, suddenly they see one of their colleagues rushing off without stopping, saying s/he cannot talk. The participants are asked to write down the thoughts pop into their mind about that colleague. However, on the other side of the paper, the second story is that they have just praised about their work and feel happy right now. While feeling good, they see that colleague just exactly doing the same as s/he did in the first story. Now, they should write down their thoughts again.

By checking the thoughts on both sides of the paper, they can realize the thoughts on the front are rather negative than the ones on the back. On the front, the participants may report thoughts such as “s/he avoids me” or “why s/he didn’t speak to me, maybe s/he sees me as an unpleasant person who easily gets angry with everyone”. However, in the back of the paper they write down thoughts such as “maybe she’s in rush to something absolutely important” or “she maybe got jealous of my praise”.

Therefore, the participants learn more about the effects of their state of mood on their thinking patterns, and they learn again that they are just thoughts. However, because of our negativity bias (see 2.1.1.1. our tendency to psychological distress), compared to positive thoughts, we highly tend to accept and believe the negative thoughts as facts. By practicing mindfulness techniques they learn to let the thoughts simply come and go.

2.2.3. Online Mindfulness Courses

The advent of the internet, and especially recent technological developments such as more powerful processors, broadband availability, 4G (even 5G)

networks, much better web-based video conferencing software, or web-based platforms, has revolutionized our education system (like many other aspects of our lives). Now, educational organizations can reach their students much easier and in lower cost, providing them with primarily or additional educational materials.

Mindfulness training can also use online methods to teach mindfulness practices to the participants who cannot attend the traditional classroom-based training lessons. Lately, there has been increasing attention to adopting these methods due to the lower costs and better availability of online courses. There are several institutions offering, for instance, MBSR and MBCT programs online. The participants, regardless of their living area, maybe from a remote village (but with the internet access) can participate in even advance training courses.

This accessibility, beyond physical borders, gives a democratic spirit to online mindfulness courses that is congruent with social work values. In social work interventions with clients, using online courses, we can reach the clients much easier and cheaper than traditional face-to-face methods. Moreover, in social work education, students can access to the courses and educational materials much easier and democratically. This is why distance interventions and educational methods is generating considerable interest among social work academics around the world (Kurzman, 2019).

Researchers from different disciplines have been trying to examine the effectiveness of distance mindfulness programs. Yet, there is a shortage of research in this area, especially in social work discipline. Ma, She, Siu, Zeng, and Liu (2018) examined the effectiveness of online mindfulness-based programs on psychological distress (depression and anxiety). They compared four groups: “a blank control group” (BCG), “self-direct mindfulness-based intervention” (SDMBI), “group mindfulness-based intervention” (GMBI), and “discussion group” (DG). The results showed that participants of GMBI and SDMBI improved in emotion regulation and psychological distress, reporting the effectiveness of the

interventions with medium to large effect sizes. Additionally, they reported better effectiveness of the GMBI compared to the other three groups, indicating that even in online mindfulness training, participation in group discussions can affect the results positively. They concluded online mindfulness-based intervention, preferably with group discussions, was effective in reducing psychological distress.

In a pilot study conducted by Moore et al. (2020), they found positive effects of a brief online mindfulness training program on rural medical students. The participants' stress and self-compassion levels reduced and increased, respectively. Therefore, the researchers concluded the online program was effective for the clinical students in rural areas, who cannot attend traditional classroom-based mindfulness courses.

In Turkey, Öksüz (2018) investigated the effects of an online MBSR program on university students, including nine social work students. After implementing the program, students reported higher levels of trait mindfulness, wellbeing, and forgiveness. Additionally, the female participants had better scores than the male students in all the scales. The researcher concluded the online mindfulness intervention was effective in promoting students' wellbeing and forgiveness.

To sum up, the evidence shows the positive effects of online mindfulness interventions. However, there is a lack of research, especially in social work discipline. New researches in this area should examine the effectiveness of such online courses by comparing them with traditional classroom-based interventions.

2.2.4. Brief Mindfulness-Based Interventions

As it mentioned in the previous sections (2.2.1. MBSR and 2.2.2. MBCT), MBSR and MBCT are both comprised of 8 weekly sessions, which each lasts about 2 hours, and also 20 to 45 min of mindfulness training as homework. Additionally, in many standard sets, there is a one-day retreat session. Thus, applying these

programs needs participants to be highly committed; they should schedule their time, not miss the sessions as much as they can, and apply their homework. Some researchers have argued that this can be an important reason, especially for non-clinical participants, to refuse the participation in the programs (Demarzo et al., 2017). Non-clinical population can be less motivated to join in such interventions because they may not feel such necessity as clinical population may feel.

In social work, on the other hand, the additional problem with the standard length of MBSR and MBCT is that social work curriculum is already crowded, and many educators see these standard programs very time-consuming and hard to integrate into the curriculum (Gockel, Burton, James, & Bryer, 2013; Thomas, 2017). Therefore, considering these problems with standard versions, the shorter programs can be more feasible to be presented to social work students at classrooms.

Recently, there has been an exponential growth in designing and researching brief mindfulness-based interventions. These interventions have designed in various forms, ranging from single-session to five-week programs. Nevertheless, there has been a lack of research on brief mindfulness-based interventions in social work literature. In Turkey, studies on standard versions are relatively new and limited, and there has not been found any study on brief versions. Below, I discussed some of the related researches and their efficacy.

2.2.3.1. Examples of Studies on Brief Mindfulness-Based Interventions

Quaglia et al. (2019) conducted an experimental study to investigate the effects of a brief 4-session (each 20 min) mindfulness training on cognitive control (the ability to pursue your goals, and instead of acting automatically, make decisions and behave based on the goals) in socioemotional contexts. They argue that, in social interactions, unpleasant facial expressions (such as fearful faces) can affect individuals' cognitive control, and consequently, they exhibit more avoidance behavior that conflicts with their goal. After the brief mindfulness

intervention, they reported that the intervention improves the cognitive control of the mindfulness training group (n = 33) by increasing the ability to have a better differentiating of facial expressions in social interactions. In other words, they argued that brief mindfulness intervention could improve emotion regulation in social interactions so that the individuals can act less impulsively/automatically when encountering an unpleasant emotional signal (here, facial expressions). This unique study demonstrated that, in addition to interpersonal benefits, a four-session mindfulness training can also have some social benefits.

In a quasi-experimental study done on a non-clinical population, Demarzo et al. (2017) assess the efficacy of a standard eight-week mindfulness program and a four-week brief version in improving the participants' well-being. The variables such as mindfulness, depression, self-compassion, and anxiety in undergraduate students were assessed in the pretest, two-, and six-month follow-up tests. The researchers reported that, compared to the controls, both 4-week and 8-week programs similarly enhanced the states of mindfulness, depression, anxiety, and positive affect. The only difference was in the six-month follow-up test in self-kindness (a component of self-compassion), favoring the longer program. The interesting finding of this study was to calculate the similar effect size for both interventions. The researchers, therefore, concluded that the efficacy of brief mindfulness interventions could be almost similar to the standard versions, making the shorter versions more appealing; however, they emphasized the need for more research in this area.

In another quasi-experimental study, Sass et al. (2019) examine the effects of a weekly five-session training (75-min sessions) on non-treatment-seeking university students' distress. Twenty-two students were assigned to the brief mindfulness groups (divided into three groups) and thirty-three to the control group. Some measurements were applied as pretests and posttests to assess the levels of variables such as depression, the judgment of experience, and anxiety, as well as a test of processing affective and neutral data were implemented. The results showed that anhedonic (the inability to experience

pleasure) depression symptoms and judging of experiences in the mindfulness intervention groups decreased significantly in contrast to the control group. Additionally, they reported that the intervention group significantly did better in processing emotional and neutral information, meaning that emotional information was not “sticky,” and the participants processed it as non-emotional information. However, in other variables, both the groups improved in posttest results. Therefore, the researchers argued that brief mindfulness intervention might help university students, who are not seeking treatment, with decreasing anhedonic depression, the judgment of experiences, and facilitating the processing of emotional and neutral information.

Shearer, Hunt, Chowdhury, and Nicol (2016) carried out a study to compare three group conditions: a brief mindfulness intervention (4 weekly 1-hour sessions), interacting with a dog, and no-treatment. Seventy-four college students were randomly allocated to three groups. After four weeks, the anxiety level of the mindfulness group was significantly lower than the other groups' levels. However, the level of anxiety in the dog group was also significantly less than the control group's level. Additionally, both the mindfulness and the dog groups felt less dysphoric (a state of unease or dissatisfaction) than the control group. Nevertheless, the interesting result appeared when the researchers gave a cognitive stressor to all of the participants, and by an electrocardiogram, they assessed the participants’ heart rate variability (which measures the ability of the body to modulate the stress response). The results showed that those in the mindfulness group significantly did better than both other groups. The dog and the control groups were not different regarding this measurement. In conclusion, the researchers suggested that brief mindfulness training for college students can help them manage their stress, especially in response to the stressors of their academic life.

In social work, Gockel et al. (2013) conducted a mixed-methods study with the title of “introducing mindfulness as a self-care and clinical training strategy for beginning social work students.” In this study, the researchers investigated the

effects of a brief 10-min mindfulness training, plus 5 min of discussion, which they took place in each 28 clinical interviewing classes. The qualitative results revealed that the students found the training useful for their clinical role, and later, they reported that they continued benefiting from it while working with clients. The quantitative results showed, in comparison to the control group, the scores of the intervention group in counseling self-efficacy significantly increased at posttest, but not in well-being. Additionally, there was a positive relationship between the students' long-term participation in the mindfulness practices and their improvement degree in counseling self-efficacy. The researchers argued that, even though a brief mindfulness training could not improve social worker students' well-being, it can increase their clinical competency. The students reported the practice improved their ability to be present at the moment, more open, and responsive to the clients. These abilities are among the most important skills that a competent social worker should possess.

In another mixed-methods study (n = 11), Gregory (2015) reported the effectiveness of 3 weekly one-hour sessions of mindfulness and yoga training to increase compassion satisfaction and decrease compassion fatigue in currently employed social workers. Additionally, in the intervention group, the social workers indicated that after the intervention, their relationship with the clients whom the social workers had defined them previously as "difficult to work with" was improved so that they can work with them so easier now. They stated: [I'm now] "more calm and attentive," and "not letting it bother me as much."

Similarly, Thomas (2017) carried out a study to explore the effectiveness of a very brief mindfulness training that was added to the social work practice classes. The length of the training was 10 min for each class session, once a week, for a total of 10 weeks. The researcher reported that, at the end of the courses, outcomes of measures such as mindfulness, empathy, and emotional regulation did not significantly change in posttests. However, the students perceived the brief mindfulness training as helpful in "managing their anxiety, staying present-

focused with clients, reducing premature judgment, and feeling safe and connected in the classroom."

As the last research example to mention, in a pilot study (n = 25), Roulston, Montgomery, Campbell, and Davidson (2018) explored the impact of relatively short mindfulness training consisted of 6 weekly 2-hour sessions (almost similar to the standard version of MBSR) on mental well-being, resilience, and stress of social work students. At the end of the program, the intervention group participants reported improvement in mental well-being and resilience and reduction in levels of stress. However, the researcher reported that some of students were "critical about the timing or duration of the sessions," and also, some did not like the mindfulness training. The researcher concluded that this kind of mindfulness training might not be interesting to all social work students; therefore, it should not be a mandatory course. However, it can be offered as a self-care approach to the students.

2.4. SELF-CARE

In the literature, academics have different views about *self-care*, so there are somehow different definitions of this term. Self-care was first viewed only through a medical perspective, which would deal with the activities patients should do to prevent different illnesses. However, there is recently a shift to a holistic definition that encompasses many aspects of individuals' health (Miller, Lianekhammy, & Grise-Owens, 2018). For example, Grise-Owens et al. (2016) consider self-care as physical, spiritual, social, and psychological health all together. Similarly, Dorociak, Rupert, Bryant, and Zahniser (2017) define self-care as "multidimensional, multifaceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being". Thus, self-care is a comprehensive concept of well-being and the activities that are applied to improve well-being. However, in this doctoral thesis, we consider only the psychological aspect of self-care, and the activities that can promote this aspect.

Different disciplines have recognized the importance of self-care not only for clients but also for their professionals, and also as an ethical obligation to the professions (Miller, 2019). This is because, in many disciplines such as nursing, psychology and social work, the well-being of the practitioners can be harmed, and these problems, which inevitably affect the client, raise an ethical issue. The NASW Code of Ethics (4.05 impairment) proclaims that problems of social workers (such as psychosocial distress, mental health, substance abuse, or other difficulties) should not jeopardize their service to the clients, and if so, they should take some remedial actions (NASW, 2017, pp. 25-26). More specifically, NASW declares “NASW supports the practice of professional self-care for social workers as a means of maintaining their competence, strengthening the profession, and preserving the integrity of their work with clients,” and recommends including self-care in social work education (NASW, 2015, p. 270)

Recently, the self-care of social workers has become an enthusiastic topic for social work research (Grise-Owens et al., 2016). The researchers mostly investigate some efficient self-care exercises, and mindfulness is one of those practices that has received a lot of attention. For example, Decker, Brown, Ashley, and Lipscomb (2019) have reported that mindfulness exercises can have “significant multidimensional benefits.” It can relieve clients’ anxiety and stress; moreover, it can be a useful self-care practice for MSW students (Decker et al., 2019). In a systematic review done by Griffiths, Royse, Murphy, and Starks (2019), they have reviewed four studies (meeting inclusion criteria) and reported that “mindfulness activities enable social workers to sustain their well-being and is critical to modeling and providing effective service delivery to clients.” Therefore, as can be seen from the literature, mindfulness has been backed up by researches as a self-care practice.

A proper self-care practice for social work students should be able to improve their state of mind, consequently decreasing the levels of stress, anxiety, and depression.

2.5. STRESS

In life, individuals can encounter many events that can adversely affect them. It can be an exam, the loss of a family member or close friend, divorce, rejection in love, unemployment, a car accident, or witnessing a war. We refer to these as *stressors*, and the physiological and psychological effects that stressors create in individuals as *stress*. In other words, stress is the effect of stressful events on individuals (Butcher, Hooley, & Mineka, 2014, p. 130).

Stressors inevitably happen in individuals' life, and consequently, everyone experiences stress somehow. When a stressor arrives, the individuals feel stressed and have to deal with it. If they possess good *coping strategies*, they can handle the situation more properly. For instance, people can lose their job and experience great stress. In dealing with this situation, individuals with good coping strategies, first, give themselves time to grief, adjust, and accept the situation. They are less likely to blame themselves for the situation, and more likely to share their feelings and problems with their friends and ask them support. Then, they can stay calm by using relaxation methods such as exercising or meditation, they eat healthy food, and in the case of alcohol, they drink in moderation. Most importantly, they take a problem-solving perspective to the situation so that, by evaluating some new positions, they start to search for a new job.

However, people who do not adopt effective coping strategies cannot cope with stress; so they can develop a variety of psychological and physical problems. They are very prone to disorders/illnesses such as anxiety, depression, drug abuse, hypertension, and cardiovascular disease (Butcher et al., 2014, pp. 136-137).

Social work is one of the stressful disciplines, in which workers are exposed to a variety of stressors (Lloyd et al., 2002). These can be their workload and personal problems, or their clients' adverse experiences such as rape, sexual abuse,

domestic violence, or war. The stressors impose a high amount of stress, which if neglected, can cause them serious mental and physical problems such as burnout, anxiety, depression, or secondary traumatic stress (Bride, 2007; Grise-Owens et al., 2016).

2.6. ANXIETY

Becoming worried about potential dangers is quite a normal tendency of human beings. They should estimate the adverse effects of various events that can affect them in the future so that they can prepare themselves. For example, people can think and worry about their job when there is a recession, about the possibility that they or one of their beloved ones can develop a terminal disease, or about their children when the children are not at home. All of these worries share a common thinking pattern: “thinking about future dangers”. *Anxiety* is to be worried about possible future threats, thereby developing a chronic future-oriented stress response.

Anxiety, especially in a mild form, has adaptive value (Butcher et al., 2014). For example, while preparing for an exam or anything important, experiencing a little bit of anxiety can help the person to wake up on time, feel more energetic and motivated to pass the exam. However, high levels of anxiety can be quite maladaptive so that it can interfere with individuals’ life. In this case, they can develop an anxiety disorder (Butcher et al., 2014). A person with anxiety disorder thinks with a pattern of “it can happen”. Even if everything is going well, s/he still worry about the possibility of a disaster.

Similarly to stress (see 2.4.stress), due to the high amount of stressors in social work, anxiety can be common among the workers (Grise-Owens et al., 2016). However, in the literature, there is a lack of researches about social workers' and students' anxiety.

2.7. DEPRESSION

Depression (going down and lowering) is a state of mood, in which the person feels down; however, dramatic cognitive and behavior changes also occur. In other words, when someone is experiencing depression, it means that her/his mood goes down, s/he suffers distorted cognitions, and her/his behaviors negatively changes.

The mood-related symptoms of depression are non-stopping sadness and hopelessness, a lack of pleasure (they cannot enjoy the activities that were once enjoyable for them), crying easily, and decreased sexual desire. Some of the behavioral and physical symptoms are psychomotor agitation (inability to stay still), psychomotor retardation (slowing down of motor functions such as slowed bodily movements), and changes in eating habits and sleep. Having negative thoughts such as worthlessness, blaming themselves, and misinterpreting the events are some of the cognitive changes during a depression state (Rosenberg & Kosslyn, 2014, p. 193).

The severity of depression can range from mild sadness and feeling down to severe levels of hopelessness, feeling completely worthless, and even suicide. Depending on the severity, this state interferes with individuals' daily life. They can withdraw from social contacts, stay at home overusing social media or watching TV for a long time, start to misuse alcohol or other drugs, and avoid their important responsibilities (such as paying bills, going to work on time, or doing their assignments). Therefore, after a while, they experience problems in their financial situation, marital life, at work, in their education, and in fact, almost in every aspect of their life.

Depression is one of the most common mental health problems in the world so that over 300 million people suffer from it. It is the leading cause of disability and a considerable cause of suicide (World Health Organization, 2018).

Among social workers, depression is an important mental problem that puts pressure on social workers and their services to clients. In a study on social workers' depression, Siebert (2004) reported 60 percent of participants had considered themselves as depressed at the time of the research or in the past, 19 percent scored as depressive, 16 percent had considered suicide, and 20 percent were on medication for depression. This study has shown that levels of social workers' depression can be quite severe and needs to pay special attention. Later studies have confirmed these results and the importance of depression and helping social workers to improve their psychological health (Stanley, Manthorpe, & White, 2006).

There are a number of mental disorders related to depression (e.g. major depressive disorder, premenstrual dysphoric disorder, or persistent depressive disorder); however, in this doctoral thesis, we consider and assess depression as a mental state, ranging from mild to severe, not as a mental disorder.

2.8. RUMINATION

Rumination is defined by Nolen-Hoeksema (1991) as “a mode of responding to distress that involves repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms.” In other words, rumination is thinking about a negative experience over and over so that it replays on your mind again and again. For instance, someone loses her/his job. After this situation, s/he cannot stop thinking about the problem that how/why this happened, what s/he did wrong, who is guilty, this is unfair, I do not have an income now, my career is destroyed, and many other thought streams.

In rumination, the person repeatedly thinks about the problem and its consequences; nevertheless, it does not lead to a problem-solving plan. Instead of taking action to change the circumstances, s/he remains fixated on the problem, and consequently on their negative emotions (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008)

Rumination correlates with both depression and anxiety, especially with a mixed form of them (Nolen-Hoeksema, 2000; Olatunji, Naragon-Gainey, & Wolitzky-Taylor, 2013; Riley, Cruess, Park, Tigershtrom, & Laurenceau, 2019). This means individuals whose rumination rate is high are more prone to develop depression or anxiety, and vice versa, the more depressed and anxious people are, the more they ruminate. Moreover, Riley et al. (2019) have reported that rumination in anxiety can lead to an impulsive behavior pattern and in depression can lead to a lack of motivation, therefore affecting negatively their health behavior.

There is a need for research on rumination among social work students and professionals. However, we can conclude from the depression researches on this population (Siebert, 2004; Stanley et al., 2006) that their risk of developing rumination can be high. Nevertheless, more researches should be conducted to find out about the rumination patterns in this population, and whether variation in rumination can affect their psychological health.

2.9. SELF-COMPASSION

To fully understand the construct of *self-compassion*, it is appropriate to define the term of *compassion* first. “The dictionary of APA” (2015) defines compassion as “a strong feeling of sympathy with another person’s feelings of sorrow or distress, usually involving a desire to help or comfort that person.” When someone is compassionate, s/he cares about the suffering of others, and instead of looking away, s/he tries to alleviate their pain. Also, if individuals make mistakes, s/he is kind towards them (Neff & Germer, 2017).

Kristin Neff (the prominent expert in introducing self-compassion) and Germer (2017) describe self-compassion as:

> Self-compassion is simply compassion directed inward. Just as we can feel compassion for the suffering of others, we can extend compassion towards the self when we experience suffering,

> regardless of whether the suffering resulted from external circumstances or our own mistakes, failures and personal inadequacies. Self-compassion, therefore, involves being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness. Self-compassion also involves offering nonjudgmental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience. (Neff & Germer, 2017, p. 2)

By using concepts of Buddhist philosophy, Neff (2003b) has articulated self-compassion as three main components: "*self-kindness, a sense of common humanity,* and *mindfulness*." These three elements combine with each other to build the whole self-compassion of an individual (Neff & Germer, 2017).

Self-kindness is to treat oneself kindly and without harsh judgment when making mistakes or during times of difficulty. If someone's self-kindness is at a lower level, s/he makes judgments towards her/himself for the failure (even if the problems stem from forces beyond her/his control). On the contrary, if self-kindness is at a higher level, they are kinder and more compassionate towards themselves during difficult times; if there is any mistake done by them, they can forgive themselves much easier.

Common humanity is the element of self-compassion relating to realizing that mistakes and frustrations are common human experiences. It is to notice that all humans encounter a variety of problems in their lives and they all suffer. Someone with higher levels of this element can realize that her/his suffering is not unique and special to her/him; every human being can fail or have difficulties, so this is common for everyone. A better understanding of common humanity, and consequently better self-compassion, assists us in relating ourselves to others and in becoming less isolated when we are in distress (Neff & Germer, 2017).

Neff and Germer (2017) defines the element of *mindfulness* as "awareness of painful thoughts and feelings rather than avoiding or overidentifying with them."

Neff and Germer (2017) emphasize, to become compassionate to ourselves, we should first be aware of our painful experience. Many people do not acknowledge their suffering, particularly when it derived from their own self-criticism, or when they encounter difficulties and become extremely engaged in the act of fixing the problems (Neff & Germer, 2017). By being more mindful of their own suffering, they can be more compassionate to themselves. On the other hand, being more mindful means to be less caught up in negative thoughts and emotions, and so not to become overidentified (Neff, 2003b). Overidentification means someone defines her/himself in terms of her/his feelings and thoughts, overwhelmed by negative behaviors, and reifying them as definitive and permanent (Neff & Germer, 2017). Neff and Germer (2017) explain “when we observe our pain mindfully, however, new behaviors become possible. Like a clear, still pool without ripples, mindfulness mirrors what’s occurring without distortion, allowing us to take a wiser and more objective perspective on ourselves and our lives”.

Recently, there has been an increasing body of researches reporting self-compassion is related to many aspects of psychological health. The more self-compassionate the subjects were, the more happiness, optimism, life satisfaction, and the less depression, anxiety, and stress they reported (Neff, 2011). Moreover, researchers have argued that self-compassion can be learned and improved through practices such as mindfulness exercises (Neff, 2011; Shapiro, Astin, Bishop, & Cordova, 2005). Therefore, mindfulness interventions, in addition to their other health benefits, can be beneficial in improving self-compassion.

2.10. EMPATHY

Rogers (1957) conceptualize empathy as "the ability to perceive the client's private world as if it were your own, but without ever losing the 'as if' quality". However, later, he made some revisions on his definition of empathy so that he shifted from a “state” mode to a “moment-to-moment process of felt meaning” (Rogers, 1975). It means that empathy is to constantly (moment-to-moment)

perceive the client's private world, and to constantly check the accuracy of the interpretation.

Considerably similar to Rogers's definition of empathy, Barker (2014), in the Social Work Dictionary, defines empathy as "the act of perceiving, understanding, experiencing, and responding to the emotional state and ideas of another person."

In social work, the significance of empathy is not a new discussion so that, from the classic through current literature, social work academics have considered empathy as an essential requirement for social work practice (Gerdes & Segal, 2011; Raines, 1990). Empathy is positively associated with effectiveness (Forrester, Kershaw, Moss, & Hughes, 2008; Jensen, Weersing, Hoagwood, & Goldman, 2005), and it means a lot to clients that therapists make efforts to understand them (Greenberg, Watson, Elliot, & Bohart, 2001). Watson (2002) reviewed the research on empathy and suggested that empathy is crucial to establishing a therapeutic relationship, and more importantly, "it is an essential component of successful therapy in every therapeutic modality."

Research has demonstrated that empathy can be learned (Gerdes & Segal, 2011). Therefore, in order to improve the quality of social work practices at all levels (micro, mezzo, and macro), social workers should learn to be empathetic towards their clients and understand their pain without becoming affected by it.

CHAPTER 3. METHOD

In this chapter, I discuss the research model, the brief mindfulness intervention program and the process of designing and implementing the program, information on the participants, the data collection tools, and the statistical methods used to analyze the data.

3.1. RESEARCH MODEL

In this thesis research, with a quantitative approach, I primarily aimed to examine the effectiveness of our brief mindfulness intervention (the independent variable) on some psychological factors (dependent variables) in social work students. Therefore, a quasi-experimental, pretest posttest design has been used. In this research model, before offering the intervention program, a set of pretests would offer to both control and intervention groups. The intervention would then apply only to the intervention group. However, after the intervention, both groups would take the posttests (Thyer, 2012). By comparing the posttest scores of the intervention group with the control group's posttest scores (with considering the two groups' pretest scores), the magnitude of the change in the intervention group would be measured in order to examine the intervention effectiveness.

The same mindfulness intervention was presented in two different ways; an online class and a traditional class. The effectiveness of two module were investigated separately by having two intervention groups (one for the online class and one for the traditional class) and two waitlist-control groups (one for the online class and one for the traditional class); means a total of four groups. One week before each intervention, we administered the pretests to the intervention and waitlist-control groups, and one week after the final session, we applied the posttests. We then offered the same intervention to the waitlist-control groups.

3.2. THE BRIEF MINDFULNESS EDUCATION PROGRAM

The brief mindfulness intervention program was designed by using the literature review and counseling the supervisor, as well as from my experience as a mindfulness teacher (for about five years).

The main features of our mindfulness program have been based on “Mindfulness-based cognitive therapy” (MBCT). In our program, we tried to make a short and compressed version of MBCT by eliminating some time-consuming features and teaching only the main concepts of the original program. We extensively use pictures and videos in the teaching process in order to improve learning. For instance, to explain the meaning of *rumination* (see 2.7.), and how to imagine rumination in our head, a video of a blender while spinning and mixing some stuff was played.

To give another example, a picture of a monkey jumping from a branch to another branch was illustrated *monkey mind* (see 2.1.4.). The rationale was that by seeing the monkey jumping onto different branches, they would imagine their mind as a monkey that its nature is jumping and wandering; so they would make no judgment about their mind while meditating and wandering. This acknowledgment of the wandering nature of mind also would encourage them to continue meditating and doing *self-regulation of attention* (see 2.1.2.) because they know the monkey (mind) will wander eventually and there is nothing wrong with it; they should simply bring it back again and again.

As the last example, to explain the relationship between thoughts and feelings, an animated GIF (graphic interchange format) file of a chain and sprocket system with two sprockets, one representing thoughts and another one representing feelings, was used. The animated GIF illustrated the movements of the sprockets that how they are connected to each other and that any spin in each one can move the other one too. By having a better understanding of this mechanism, the participants can realize the importance of their cognitive system on their

feelings/emotions, and vice versa. For example, they would realize that when their mood is down, there is a good chance of pupping some negative thoughts in their head. They can realize these negative thoughts are not the facts; they are just thoughts.

The education program was prepared as Microsoft PowerPoint slides. In the traditional classroom-based module, as usual to the classes, the slides were projected, accompanied by my lectures as well as the practices. In the online module, I used the online-teaching software, namely Zoom, to present the same slides and lessons online. The Zoom is a video communication software that provides free online meetings of up to 100 participants. The participants can share their computer screen or an application such as Microsoft PowerPoint while they are presenting the slides. The participants can connect to the software by either a computer or a smartphone.

The classroom-based course began on 13th December 2019 and was completed by 3rd January 2020, and the online course on 10th April 2020 and completed by 1st May. Both courses were held on Fridays, from 1 pm to 2.40 pm.

The outline of the brief mindfulness intervention program is listed below.

Before the sessions started:

- The introduction of the intervention and the procedure,
    - The benefits of the course; how can it be helpful to the participants?
    - The importance of home practices,
    - The importance of being patient and persistent.
- Applying the pretests.

Session 1:

- Introduction,

- Our Tendency to Psychological Distress I,
    - Negativity Bias.
- Rumination, depression, and anxiety,
- Why mindfulness?
- What is mindfulness?
    - Monkey mind
    - Self-regulation of attention,
- Positive Effects of Mindfulness,
- How to Do Mindfulness,
- Brief mindfulness meditation (Sitting meditation; about 10 min),
- Feedback and discussion about the brief meditation,
- Ending the session by giving some advice about homework.

Homework instructions for the first week:

- Ten to twenty minutes of sitting meditation practice (by listening to the guided meditation recording given via a WhatsApp group),
- Practice informal mindfulness activities such as mindfully eating, brushing teeth, or doing dishes.

Session 2:

- A quick review of the main themes of the first session (such as mindfulness, negativity bias, rumination, depression, and anxiety),
- Sitting meditation (about 15 minutes),
- Feedback and discussion about the sitting meditation as well as the last week's homework, and discussion of experiencing difficulties when practicing mindfulness meditation,
- What is mindfulness?

  - Orientation to experience (the concepts such as acceptance and being non-judgmental),

- Some neurological effects of mindfulness practice on human brain,
- Sitting meditation (about 15 minutes),
- Ending the session by giving some advice about homework.

Homework instructions for the second week:

- Ten to twenty minutes of sitting meditation practice (without listening to the guided meditation recording),

Continue to practice informal mindfulness activities such as mindfully eating, brushing teeth, or doing dishes.

Session 3:

- A quick review of the main themes of the second session (the concepts such as acceptance and being non-judgmental),
- Introducing the Three-minute breathing space,
- Explaining the relationship between thoughts and feelings (MBCT concepts),
- Giving examples to highlight the relationship between thoughts and feelings (such as “walking down the street”).
- Discussion about automatic thoughts and that how those thoughts are not “truth”; they are just “universal symptoms” of a bad mood,
- Sitting meditation (about 15 minutes).

Session 4:

- A quick review of the main themes of the first, second and third session,
- Three-minute breathing space,
- Our Tendency to Psychological Distress II,
  - The Difficulty of Accepting Change,

  - Constantly Comparing Ourselves with Others,
  - Experiential avoidance,
  - How mindfulness can help with these tendencies.
- Practicing the Three-minute breathing space
- Reading Mevlana's poem: "The Guest House", and explaining the meaning.
- Sitting meditation (about 15 minutes).
- Ending the intervention and arrange a meeting time for the posttests.

After the sessions finished:

- Applying the posttests.
- Matching the participants' pretest posttest questionnaires, and after giving a code per each participant, cutting the name section of the questionnaires.

3.3. PARTICIPANTS

The sampling method of this study was "convenience sampling" which is "a type of nonprobability sampling in which people are sampled simply because they are convenient sources of data for researchers" ("Encyclopedia of Survey Research Methods," 2008).

The total sample of the study consisted of 101 third-year undergraduate students studying at Hacettepe University (located in Ankara-Turkey). There were two separate sets of intervention versus waitlist-control group. One set for the traditional classroom-based mindfulness course and the other one for the online mindfulness course, meaning a total of four groups of participants. In the traditional classroom-based mindfulness course, 32 students comprised the intervention group, and 27 students the waitlist-control group. In the online mindfulness course, there were 23 students in the intervention group versus 19 students in the waitlist control group.

Recruitment Process of Participants

In the recruitment process, we aimed to recruit mainly third-year undergraduate students because they passed plenty of courses in social work, however, unlikely to fourth-year undergraduate students, they are not so busy with the requirements, especially fieldwork training.

To compose the groups of the traditional classroom-based mindfulness course, after presenting a brief introduction of the education program to a classroom of about 80 students, the volunteers sent a message to me to join in one of the WhatsApp groups relating to the intervention or waitlist-control groups. Due to the students' crowded curriculum, they were given the option to participate in either the intervention or the waitlist-control groups. However, nearly fifty-five percent of the students had no problem to join either the first or the second group; therefore, they were randomly assigned to the two groups. The rest (nearly forty-five percent) chose their group by themselves, and consequently, the composition of the groups was not completely random.

In forming the groups of the online mindfulness course, about three weeks after March 20th (the date universities and schools went closed in Turkey due to COVID-19 pandemic), an e-mail including introduction and invitation to the online mindfulness course was sent to another classroom of third-year undergraduate students (nearly 60 students). The volunteers sent a message to me, and they were divided into the intervention and waitlist-control groups randomly.

The *inclusion criteria* were any third-year undergraduate social work student studying at Hacettepe University who was willing to participate. The *exclusion criteria* were the unwillingness of participants to continue participation in the research and the absence of more than one session in the intervention sessions, as well as having any currently diagnosed psychological disorder that can affect the results of the study. The incentive for participation in this study was a certificate of participation in the brief mindfulness education program.

In the classroom-based course, first, the intervention group consisted of thirty-eight individuals, however, after starting the program, four students did not participate at all, and two were met the exclusion criteria; therefore, dropping out of the study. In the online course, in the beginning, twenty-six students were made up the intervention group, however, three of them met the exclusion criteria and dropped out.

In the classroom-based course, the students' ages ranged from 20 to 23 years (M = 20.9, SD = 1.03), 52 were female (88%), and 7 were male (12%), and the ratio of male:female students for the intervention and the waitlist-control groups were 1:15 and 1:4.4, respectively. In the online course, the ages ranged from 20 to 22 years (M = 21.36, SD = 0.809), 29 were female (69%), and 13 male (31%), and the female:male ratio for the intervention and the waitlist-control groups were 1:2.3 and 1:2.17 respectively. None of the participants, from any group, was married, and they reported no psychological disorder or physical illness that can interfere with the study process.

Protection of Human Participants

After taking the required ethical permissions from Hacettepe University Ethical Committee (See Appendix 8), the interventions were performed. In this study, there were two waitlist-control groups that, because of the ethical considerations, they have the right to have the intervention too. Therefore, after completion of all tests, the exact program offered for the control groups as it was implemented to their counterparts in that module. Participation was voluntary, with written consent (See Appendix 7), and they were free to withdraw at any time of the study. After assigning codes for each respondent, the name section was cut; therefore, all the data collecting instruments were anonymous.

3.4. MEASURES

The participants in the classroom-based module filled the paper-based measures; however, the participants in the online module answered the same

measures via email. At pretests, all participants filled a personal questionnaire that included items such as age, sex, education, and marital status (See Appendix 1). At the pretest and posttest, we administered the questionnaires described below.

3.4.1. Depression, Anxiety and Stress Scale - 21 Items (DASS-21)

In the current study, we used the DASS-21 (see Appendix 2) to measure the participants' levels of depression, anxiety, and stress. This 21-item questionnaire developed by Lovibond and Lovibond (1995) contains seven items for each sub-scale of depression, anxiety, and stress. Answer options are on a Likert scale from 0 ("did not apply to me at all") to 3 ("applied to me very much, or most of the time"). Higher scores in sub-scales indicate higher depression, anxiety, and stress. The DASS-21 has been reported as a valid and reliable measure for clinical and non-clinical populations by different studies, with 0.87 and above alpha coefficients for its three subscales (Crawford & Henry, 2003).

In Turkey, Sariçam (2018) translated the DASS-21 into Turkish and reported a high level of internal consistency for clinical samples, with an alpha coefficient of 0.87 for depression, 0.85 for anxiety, and 0.81 for stress subscale. In another study, Yıldırım, Boysan, and Kefeli (2018) reported excellent internal reliability, with coefficient alphas ranging from 0.87 to 0.90, and temporal stability, with intra-correlations ranging from 0.82 to 0.93. The researchers argued that the Turkish version of the DASS-21 appeared to have satisfactory psychometric properties in both clinical and non-clinical samples (Yıldırım et al., 2018).

3.4.2. Self-Compassion Scale (SCS):

The SCS (see Appendix 3) is the most well-known self-report inventory for assessing self-compassion in individuals. It is developed by Neff (2003a), in 26 items, revealing the scores of *"self-compassion* (the Total Score), *self-kindness*, *self-judgment*, *common humanity*, *isolation*, *mindfulness*, and *over-identification* (the sub-dimensions scores)." Each item is rated on a 5-point Likert-type scale (1

= Almost never to 5 = Almost always). Higher scores on dimension of Self-Compassion and positive sub-dimensions (self-kindness, common humanity, and mindfulness) indicate higher levels of self-compassion, whereas higher scores on negative sub-dimensions (self-judgment, isolation, and over-identification) report lower levels of self-compassion.

In the original study, Neff (2003a) reported the internal reliability coefficients of the SCS subscales ranged between 0.75 and 0.92. Based on some further studies, Neff (2016) argued that SCS is a reliable and valid scale to assess self-compassion; moreover, when it reveals someone as self-compassionate person, others can also clearly observe their compassionate behaviors towards themselves. Neff (2016) states the SCS can be used in a flexible manner, both at the sub-scale or total scale levels, depending on the interests of researchers.

In Turkey, three separate study groups translated the SCS into Turkish and investigated its validity and reliability in the Turkish population (Akın, Abaci, & Çetin, 2007; Deniz, Kesici, & Sümer, 2008; Kantaş, 2013). For example, Akın et al. (2007) reported that exploratory and confirmatory factor analyses showed that SCS yielded 6 factors, as the original version. Internal consistency coefficients ranged from 0.72 to 0.80, and test-retest reliability coefficients ranged from 0.56 to 0.69. However, other studies (Deniz et al., 2008; Kantaş, 2013) supported only the self-compassion (total) dimension of the scale. For example, Deniz et al. (2008) reported that internal consistency coefficients was 0.89 and test-retest reliability was 0.83. In our study, we use only the self-compassion score to reveal the participants' total self-compassion.

3.4.3. Ruminative Thought Style Scale (RTS):

Developed by Brinker and Dozois (2009), The RTS (see Appendix 4) measures rumination in a single dimension, revealing how much the participants ruminate. In our study, to measure students thinking style that how much it is repetitive, uncontrolled, recurrent and intrusive, the Turkish form of the scale was used.

The RTS is a 20-item instrument, which rated on a 7-point Likert type scale from 1 (“not at all descriptive of me”) to 7 (“describes me very well”). Brinker and Dozois (2009) reported a good reliability for the scale with coefficient alphas ranging from 0.87 to 0.95.

Turkish form of the RTS has been translated and reported to be a valid and reliable scale by Karatepe, Yavuz, and Turkcan (2013). The researchers in the study of reliability observed that the internal consistency coefficient of the questionnaire was 0.907. They argued the RTS is a valid and reliable measure for the Turkish population.

3.4.4. Mindful Attention Awareness Scale (MAAS):

Created by Brown and Ryan (2003), the MAAS (see Appendix 5) is a commonly used single-dimensional measure of mindfulness. It measures the frequency awareness of present moment and the qualities of being accepting and non-judgmental (Walach, Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006). In this 6-point Likert-type scale, participants are asked to rate the frequency of each question in a way that reflects their experience. Higher scores on the MAAS are an indicator of higher levels of being mindful. In the original study, Brown and Ryan (2003) reported a good reliability coefficient alpha of 0.82.

In Turkey, Özyeşil, Arslan, Kesici, and Deniz (2011) have adapted the MAAS into Turkish. They reported that the scale, with internal consistency reliability coefficient of 0.80 and test-retest correlation of 0.86, is a reliable and valid questionnaire to measure state of mindfulness in Turkish population (Özyeşil et al., 2011).

3.4.5. The Toronto Empathy Questionnaire (TEQ):

In our study, in order to measure how empathic the participants were, we used the TEQ (see Appendix 6). Developed by Spreng, McKinnon, Mar, and Levine (2009), the TEQ is a single-dimensional 16-item 5-point Likert type scale ranged

from 1 (never) to 5 (always). The more scores the individuals gain in the TEQ, the more empathetic they report themselves. In their study, Spreng et al. (2009) detected a reliability coefficient alpha of 0.85, indicating good reliability of the TEQ.

Turkish form of the TEQ has been created by Totan, Dogan, and Sapmaz (2012), by translating and adapting the TEQ into Turkish. However, items one, six, and nine were omitted from the questionnaire because their values were below 0.30 in the items' power examination. After omitting those items and conducting item analysis, it was found that the corrected item total correlations ranged from 0.31 to 0.55, meaning the item total correlations of all items were above 0.30. Therefore, the results of their study turned the TEQ into a 13-item assessment tool, but still a reliable and valid instrument (Totan et al., 2012). They reported a coefficient alpha of 0.79 for its internal consistency and 0.73 for test-retest reliability. Thus, they argued that the Turkish translation of the TEQ is a reliable and valid questionnaire to assess the empathy levels of Turkish university students (Totan et al., 2012).

3.5. STATISTICAL ANALYSES

In the present study, I investigated the effects of our mindfulness intervention in two separate modules – the traditional classroom-based and the online course – in different periods. Therefore, considering the time difference between the modules, the effectiveness analyses of the modules have been examined separately. In the first section, the classroom-based module has been analyzed, and then, the online one in the second section.

I used SPSS (version 23) for all statistical analyses, with the significance level set to $\alpha=.05$. For sections of one and two, separately, there were some preliminary statistical analyses. First, regarding all the variables, the data obtained from either pretest or posttest were tested for normality (using the Shapiro-Wilk test). Next, in addition to descriptive statistics, Independent

Samples T-Tests were conducted to explore if there were any differences between the intervention and waitlist-control group on the pretest measurements.

To compare the groups on posttest measurements, and to examine whether our brief mindfulness intervention was effective in the intervention group, a one-way analysis of covariance (ANCOVA) was applied for each variable. In these analyses, pretest variables were included as covariates because, in quasi-experimental designs, the pretest scores of control and intervention groups can be different, and so the use of covariate control increases the statistical strength by reducing unexplained or error variance (Tabachnick & Fidell, 2019).

Finally, in the section three, by using a SPSS custom dialog called PROCESS (Hayes, 2012), mediation analyses were conducted to examine how some variables (mediator) may mediate the link between intervention (predictor) and the improved variable (outcome). In other words, if the effectiveness of the intervention was appeared from the ANCOVAs, mediation analyses were run to analyze the possible working mechanism of the intervention. For example, if it appeared that the intervention decreased the participants' depression (and also rumination) levels, and if appeared that rumination is a mediator of the link between intervention and depression, we can conclude that it is likely that the intervention works against depression by decreasing rumination levels. However, confirming that a variable is a mediator of an intervention effects does not definitely prove it as a mechanism of change (Kazdin, 2007). Nevertheless, distinguishing mediators of change is very crucial in establishing how an intervention works because it narrows down the search by identifying "necessary, sufficient and facilitative ingredients for intervention to achieve change" (Kazdin, 2007).

Before analyzing mediation, Pearson's correlation coefficient (r) tests were run to examine the relationships between the posttest variables. Only the variables that were correlated were used in the mediation analysis. Moreover, the previous research were considered in order to choose the mediators and the outcome

variables. Suggested by previous research, bootstrapping 95% confidence intervals (CI) with a sampling rate of 5,000 were used to discover the significance of each mediating or indirect effect (Hayes, 2012). Bootstrapping is a resampling procedure that provides multiple samples to the existing data set, and after this procedure, CIs are used to examine if the indirect effect of the predictor via the mediator on the outcome is significant (Preacher & Hayes, 2004). If CIs do not contain zero in the range, then this means that the mediator has a significant indirect effect (Preacher & Hayes, 2004).

CHAPTER 4. RESULTS

In this chapter, I have reported the results of the statistical analyses regarding the research. The main purpose of this study was to examine the effectiveness of our brief mindfulness program in improving the participants' psychological health, as well as promoting their empathy levels. Moreover, we aimed to examine this effectiveness in two separate modules of this program – the traditional classroom-based and the online course. The effectiveness analyses of the traditional classroom-based course and the online course have been reported as the first and the second section of effectiveness analyses, respectively. After examining the effectiveness, in order to find out about the possible working mechanism of the intervention, mediation analyses have been reported in the third section of the statistical analyses. In this chapter, we have followed the research questions as the guidance of our statistical process.

4.1. SECTION ONE: THE EFFECTIVENESS OF THE TRADITIONAL CLASSROOM-BASED MINDFULNESS COURSE

In this section, regarding the research questions of 1 to 7, we investigate the effectiveness of the traditional classroom-based mindfulness course. But first, the results of preliminary statistical analyses have been reported below.

4.1.1. Preliminary Statistical Analyses

To examine possible differences between the intervention and control groups on the pretest scores, and to catch a glimpse of these differences, I conducted a series of Independent Samples T-Tests (Table 2). However, first, pretest scores for each group were tested for normality distribution by using the Shapiro-Wilk test and found that the data were normally distributed (Table 1).

Table 1. The Results of the Shapiro-Wilk Test of Normality for Pretest Variables of the Groups (Classroom-Based Students)

		Shapiro-Wilk		
Variable	*Group*	*Statistic*	*df*	*p*
Depression pretest	Intervention	.948	32	.130
	control	.928	27	.062
Anxiety pretest	Intervention	.941	32	.080
	Control	.932	27	.079
Stress pretest	Intervention	.979	32	.782
	Control	.950	27	.209
Self-compassion pretest	Intervention	.988	32	.972
	control	.958	27	.340
Rumination pretest	Intervention	.958	32	.244
	Control	.948	27	.191
Mindfulness pretest	Intervention	.952	32	.167
	Control	.979	27	.849
Empathy pretest	Intervention	.949	32	.131
	Control	.951	27	.231

Note: df represents degree of freedom; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

Table 2. Independent Samples T-Test Comparing the Groups (Classroom-Based Students) on the Pretest Variables

Variable	*Groups*	*M*	*SD*	*t*	*df*	*p*
Depression pretest	Intervention	16.56	8.89	1.22	57	.229
	Control	13.63	9.61			
Anxiety pretest	Intervention	12.31	9.17	0.71	57	.482
	Control	10.74	7.63			
Stress pretest	Intervention	18.94	8.84	1.32	57	.193
	Control	16.00	8.17			
Self-compassion pretest	Intervention	2.77	0.67	-1.55	57	.127
	Control	3.03	0.60			
Rumination pretest	Intervention	103.09	18.74	1.90	57	.063
	Control	92.96	22.28			
Mindfulness pretest	Intervention	4.00	0.68	-0.34	57	.736
	Control	4.06	0.82			
Empathy pretest	Intervention	56.88	5.12	-0.06	57	.949
	Control	56.96	5.37			

Note: M, SD, and df represent Mean, Standard Deviation, and degree of freedom, respectively; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

As shown in Table 2, although there were some differences between the intervention and control groups at the mean pretest scores of the variables, the results of the Independent Samples T-Tests indicated that none of them was statistically significant ($p > .05$).

4.1.1. Statistical Analyses for Effectiveness

For each dimension (self-compassion, depression, anxiety, stress, rumination mindfulness, and empathy), a one-way analysis of covariance (ANCOVA) was applied to examine that, compared to the control group, if the intervention group obtained better posttest scores after undergoing the mindfulness intervention. For examining each of the posttest variables, its pretest variable was included as the covariate in the ANCOVA. For example, for examining the differences between the groups' mean scores on the variable of depression posttest, the depression pretest was included as the covariate.

Before conducting the ANCOVAs, the assumptions were evaluated. To report the main analyses less elaborately, first, below, I have summarized the assumptions' results for all the dimensions. Then, for each ANCOVA, I have reported only the main analyses and the results.

a) The normality distribution of the dependent variable by each level of the independent variable

To examine the normality distribution of posttest variables, the Shapiro-Wilk test was used. The results of the test for posttest scores of depression, anxiety, and stress in the intervention group, and empathy in both the intervention and control groups were significant (Table 3).

Table 3. The Results of the Shapiro-Wilk Test of Normality for Posttest Variables of the Groups (Classroom-Based Students)

		Shapiro-Wilk		
Variable	*Group*	*Statistic*	*df*	*p*
Depression posttest	Intervention	.886	32	.003
	Control	.937	27	.105
Anxiety posttest	Intervention	.899	32	.006
	Control	.937	27	.101
Stress posttest	Intervention	.916	32	.016
	Control	.974	27	.718
Self-compassion posttest	Intervention	.972	32	.565
	Control	.953	27	.254
Rumination posttest	Intervention	.971	32	.534
	Control	.979	27	.829
Mindfulness posttest	Intervention	.942	32	.086
	Control	.971	27	.632

Empathy posttest	Intervention	.907	32	.009
	Control	.918	27	.036

Note: df represents degree of freedom; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

Therefore, I screened the skewness and kurtosis values of those distributions that were significant in the Shapiro-Wilk test. As one of the most common and strict rule of thumb, if the skewness and kurtosis values are within ±1.0, the distribution is considered relatively normal (Lomax & Hahs-Vaughn, 2013). In this section of the study, the skewness and kurtosis values of all variables were within ±1.0. For example, the skewness and kurtosis of depression posttest in the intervention group were 0.985 (SE = 0.414) and 0.403 (SE = 0.809), respectively. Thus, the assumption of the normality distribution of the dependent variable has been met for this section of the study.

Moreover, ANCOVA is robust to violations of the assumption of normality (and even to violation of the equal regression slopes when group sizes are approximately equal); so, the results are not affected by the violations (Levy, 1980).

b) Outliers

I screened both dependent variables and covariates (pretests) for the outliers by Vertical Boxplots, resulting in no extreme outlier (values more than 3 interquartile range) for any variable. However, there were some moderate outliers (values between 1.5 and 3 interquartile range) for the valuables of depression posttest in the intervention group, and anxiety pretest and stress pretest in the control group. Conducting the ANCOVA relating to these variables, neither the presence nor absence of the outliers changed the results; therefore, I decided not to exclude any of the outliers from these analyses.

c) Linear relationships between the independent variable and the covariates by each level of the independent variable

I used the Scatterplot Matrix to investigate the linear relationship between the posttest and the pretest scores by each group level of intervention and control. The results showed that all posttests had a linear relationship with their pretests, so the assumption was satisfied for all the dimensions.

d) Homogeneity of regression slopes

ANCOVA assumes that regression slopes have the same slopes (parallel regression lines) across all levels of the categorical variable (group). In Table 4, I summarized the results of the analysis evaluating the homogeneity of regression slopes for each ANCOVA related to the dimensions.

Table 4. The Results of the Analysis Evaluating the Homogeneity of Regression Slopes of the Groups (Classroom-Based Students)

Dependent	*Independent × Covariate*	*df*	*MS*	*F*	*p*
Depression posttest	Group × depression pretest	1	84.95	1.843	.180
Anxiety posttest	Group × anxiety pretest	1	53.54	1.564	.216
Stress posttest	Group × stress pretest	1	25.06	0.580	.450
Self-compassion posttest	Group × self-compassion pretest	1	0.32	1.361	.248
Rumination posttest	Group × rumination pretest	1	1166.7	3.964	.052
Mindfulness posttest	Group × mindfulness pretest	1	0.04	0.088	.767
Empathy posttest	Group × empathy pretest	1	2.30	0.218	.643

Note: df and MS represent degree of freedom and Mean Square, respectively; the significance level is < .05.

As can be seen from Table 4, for none of the dimensions, the relationship between the covariate (pretest) and the dependent variable (posttest) did not differ significantly as a function of the independent variable (group). It means the regression slopes are approximately parallel. Therefore, the assumption of homogeneity of regression slopes has been met for all seven dimensions.

e) Homogeneity of variances

To examine the homogeneity of posttest variances in each ANCOVA, Levene's test of equality of variances was used (Table 5).

Table 5. Levene's Test of Equality of Variances on Posttest Scores of the Groups (Classroom-Based Students)

Variable	*F*	*df1*	*df2*	*p*
Depression posttest	2.798	1	57	.100
Anxiety posttest	0.455	1	57	.503
Stress posttest	0.622	1	57	.434
Self-compassion posttest	3.604	1	57	.063
Rumination posttest	1.571	1	57	.215
Mindfulness posttest	0.020	1	57	.889
Empathy posttest	1.110	1	57	.297

Note: the significance level is < .05.

Table 5 illustrates that, for none of the dimensions, the results of Levene's test was significant. Therefore, the assumption of homogeneity of variance was satisfied for all the dimensions.

After meeting ANCOVAs assumptions, below, I have reported the ANCOVAs for each dimension, under the direction of the research questions for the classroom-based program.

4.1.1.1. The Effects of the Classroom-Based Program on Depression

Research Question 1: Does the classroom-based mindfulness program decrease depression levels among social work students?

A one-way ANCOVA was conducted to compare the intervention and the control groups on the depression posttest scores, with the depression pretest as the covariate (Table 6).

Table 6. Summary ANCOVA and Related Descriptive Statistics for Depression Posttest of the Groups (Classroom-Based Students)

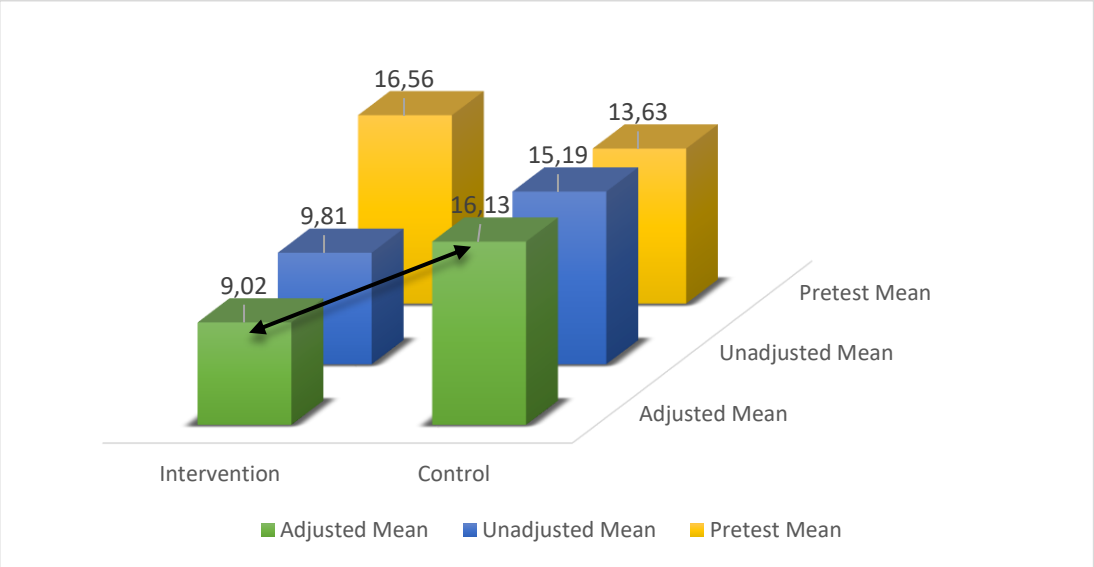
Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	9.81	6.86	9.02	1.22	1	15.43	<.001	.216
Control	15.19	10.50	16.13	1.33				

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

Based on the results presented in Table 6, the difference in the groups' means of the posttest scores was found to be statistically significant ($p < .05$). Figure 1

illustrates the mean depression pretest, posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible. These results suggested that the intervention group reported fewer depression symptoms after the intervention. Therefore, the answer to the first research question is that “the classroom-based mindfulness program is effective in reducing depression levels among social work students.”

Figure 1. Mean Depression Scores for the Groups (Classroom-Based Students)



4.1.1.2. The Effects of the Classroom-Based Program on Anxiety

Research Question 2: Does the classroom-based mindfulness program decrease anxiety levels among social work students?

A one-way ANCOVA was conducted to analyze the difference between the intervention and the control groups on the anxiety posttest scores, with the anxiety pretest as the covariate (Table 7).

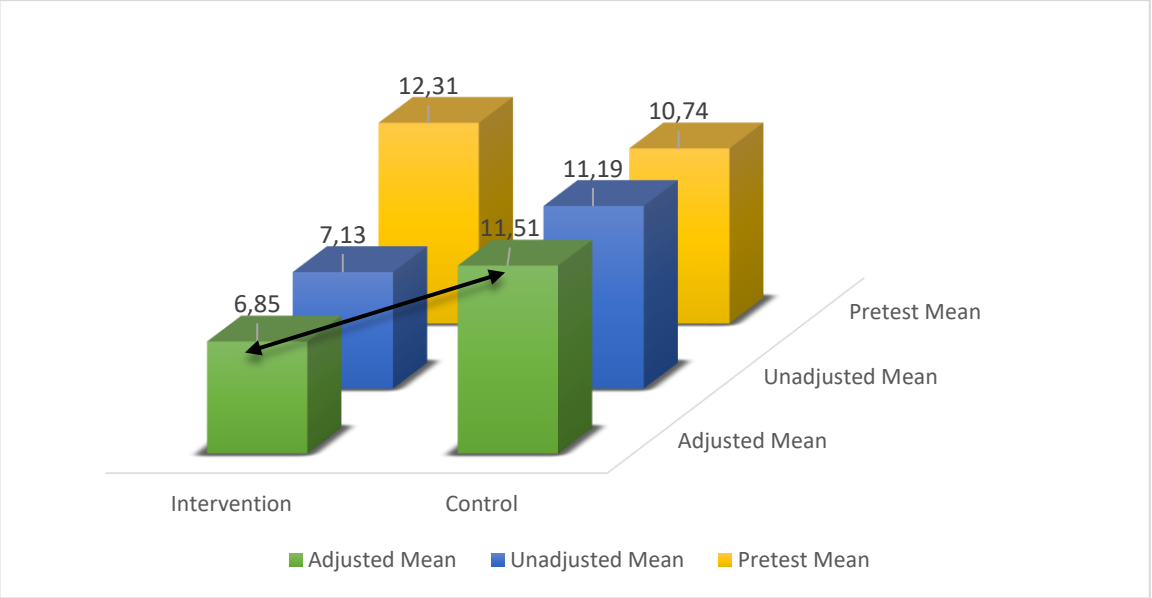
Table 7. Summary ANCOVA and Related Descriptive Statistics for Anxiety Posttest of the Groups (Classroom-Based Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	7.13	6.16	6.85	1.04	1	9.14	.004	.14
Control	11.19	7.26	11.51	1.13				

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

As can be seen from Table 7, the results of the ANCOVA for anxiety scale show there was a statistically significant difference between the groups on the mean posttest scores, with lower mean scores for the intervention group ($p < .05$). Figure 2 illustrates the mean anxiety pretest, unadjusted posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible. These results suggest the intervention group reported fewer anxiety symptoms after the intervention. Therefore, the answer to the second research question is that "the classroom-based mindfulness program is effective in reducing anxiety levels among social work students."

Figure 2. Mean Anxiety Scores for the Groups (Classroom-Based Students)



4.1.1.2. The Effects of the Classroom-Based Program on Stress

Research Question 3: Does the classroom-based mindfulness program decrease stress levels among social work students?

To find out if there was a difference between the intervention and the control groups on the stress posttest scores, an ANCOVA was utilized, with the stress pretest as the covariate (Table 8).

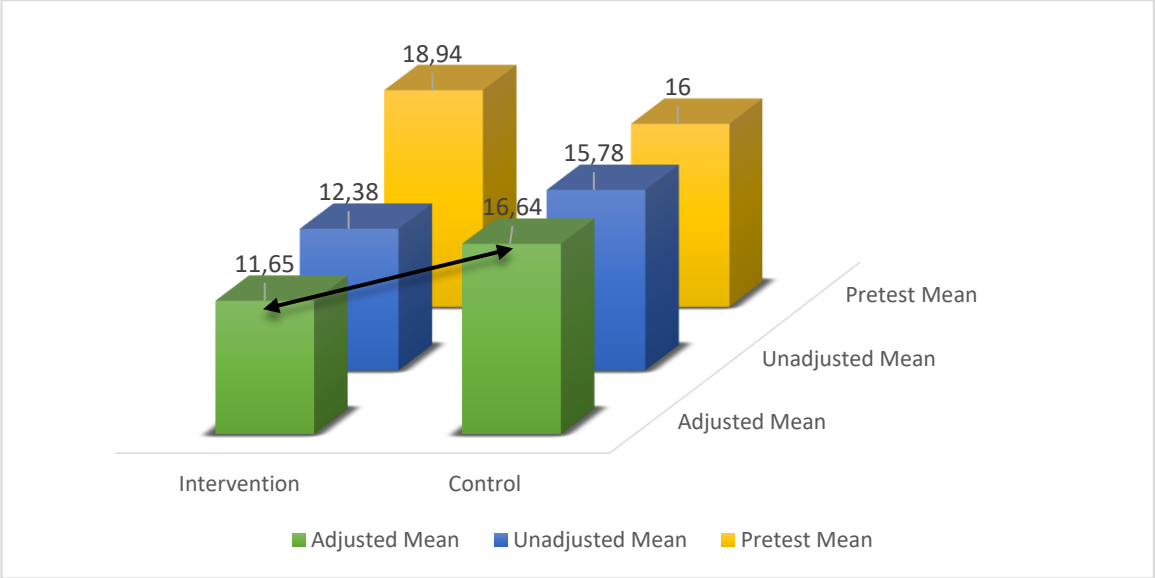
Table 8. Summary ANCOVA and Related Descriptive Statistics for Stress Posttest of the Groups (Classroom-Based Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	12.38	12.38	11.65	11.65	1	8.24	.006	.128
Control	15.78	15.78	16.64	16.64				

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

Based on the ANCOVA results presented in Table 8, there was a statistically significant difference between the groups on the mean stress posttest scores, with lower mean scores for the intervention group ($p < .05$). Figure 3 illustrates the mean stress pretest, unadjusted posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible. These results suggest the intervention group reported fewer stress symptoms after the intervention. Therefore, the answer to the third research question is that “the classroom-based mindfulness program is effective in reducing stress levels among social work students.”

Figure 3. Mean Stress Scores for the Groups (Classroom-Based Students)



4.1.1.4. The Effects of the Classroom-Based Program on Self-Compassion

Research Question 4: Does the program improve self-compassion among social work students?

A one-way ANCOVA was conducted to analyze whether there was a difference between the intervention and the control groups on self-compassion posttest scores, with the self-compassion pretest as the covariate (Table 9).

Table 9. Summary ANCOVA and Related Descriptive Statistics for Self-Compassion Posttest of the Groups (Classroom-Based Students)

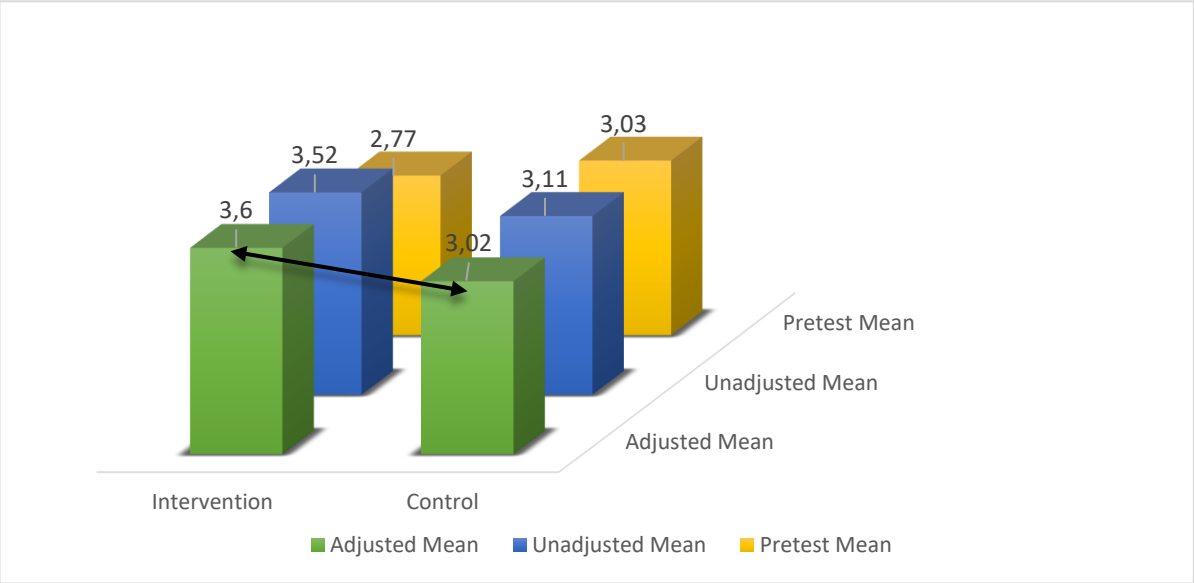
Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	3.52	0.66	3.60	0.09	1	20.25	<.001	.266
Control	3.11	0.59	3.02	0.10				

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

As can be seen from Table 8, the intervention group had higher mean self-compassion posttest scores compared to the control group, and the ANCOVA results confirmed this difference to be statistically significant ($p < .05$). Figure 4 illustrates the mean self-compassion pretest, unadjusted posttest, and adjusted

posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible. These results suggest the intervention group reported higher levels of self-compassion after the intervention. Thus, the answer to the fourth research question is that “the classroom-based mindfulness program is effective in improving self-compassion levels among social work students.”

Figure 4. Mean Self-Compassion Scores for the Groups (Classroom-Based Students)



4.1.1.5. The Effects of the Classroom-Based Program on Rumination

Research Question 5: Does the program decrease rumination levels among social work students?

In order to examine the difference between the groups on the rumination posttest scores, an ANCOVA was utilized, considering the rumination pretest scores as the covariate (Table 10).

Table 10. Summary ANCOVA and Related Descriptive Statistics for Rumination Posttest of the Groups (Classroom-Based Students)

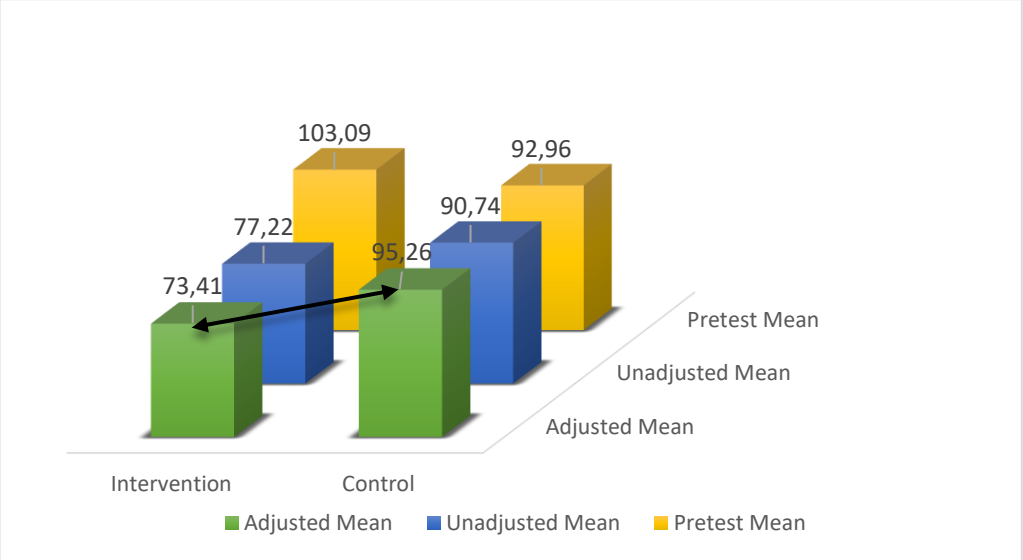
Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	77.22	20.95	73.41	3.16				

Control	90.74	27.63	95.26	3.45	1	21.23	<.001	.275

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

As can be seen from Table 8, the mean rumination posttest score of the intervention group was much lower than the control group, with reporting statistically significant by the ANCOVA ($p < .05$). Figure 5 illustrates the mean rumination pretest, unadjusted posttest, and adjusted posttest scores for the groups. It suggests that the intervention group reported lower levels of rumination after the intervention. Therefore, the answer to the fifth research question is that "the classroom-based mindfulness program is effective in decreasing rumination levels among social work students."

Figure 5. Mean Rumination Scores for the Groups (Classroom-Based Students)



4.1.1.6. The Effects of the Program on Mindfulness

Research Question 6: Does the program increase mindfulness levels among social work students?

An ANCOVA was conducted to examine the difference between the intervention and the control groups on mindfulness posttest scores, considering the mindfulness pretest scores as the covariate (Table 11).

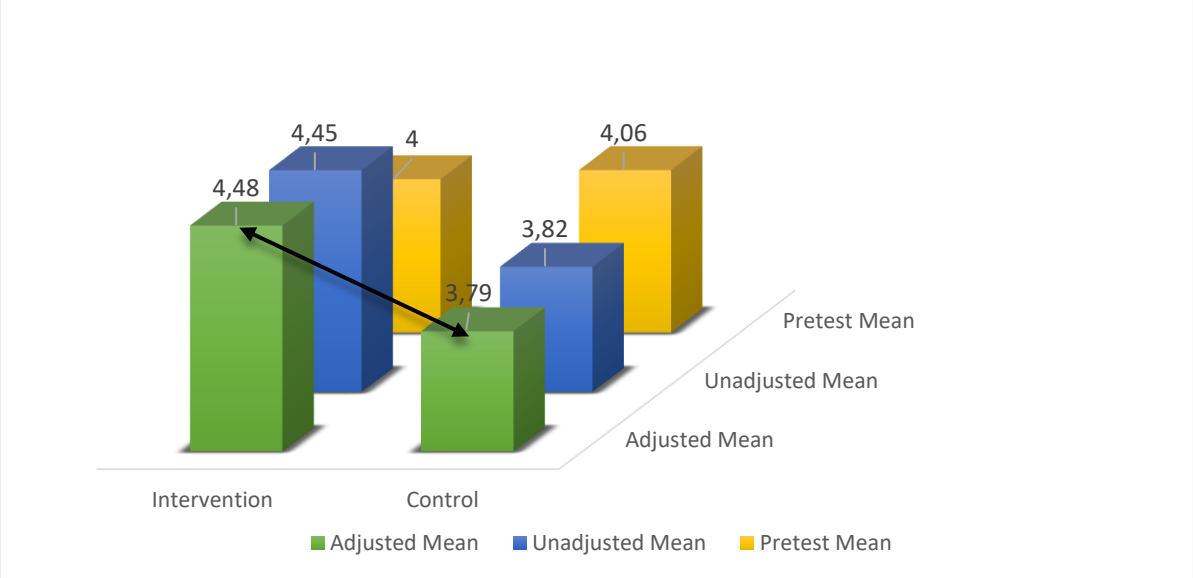
Table 11. Summary ANCOVA and Related Descriptive Statistics for Mindfulness Posttest of the Groups (Classroom-Based Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	4.45	0.75	4.48	0.12	1	15.26	<.001	.214
Control	3.82	0.94	3.79	0.13				

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

As obvious from Table 11, the mean mindfulness posttest score of the intervention group was lower than the control group, and the ANCOVA results show the difference is statistically significant (p < .05). Figure 6 illustrates the mean mindfulness pretest, unadjusted posttest, and adjusted posttest scores for the groups. It shows the intervention group reported higher levels of mindfulness after the intervention. Therefore, the answer to the sixth research question is that "the classroom-based mindfulness program is effective in increasing rumination levels among social work students."

Figure 6. Mean Mindfulness Scores for the Groups (Classroom-Based Students)



4.1.1.7. The Effects of the Program on Empathy

Research Question 7: Does the program foster empathy among social work students?

To examine the difference between the intervention and the control groups on empathy posttest scores, an ANCOVA was conducted, considering the empathy pretest scores as the covariate (Table 12).

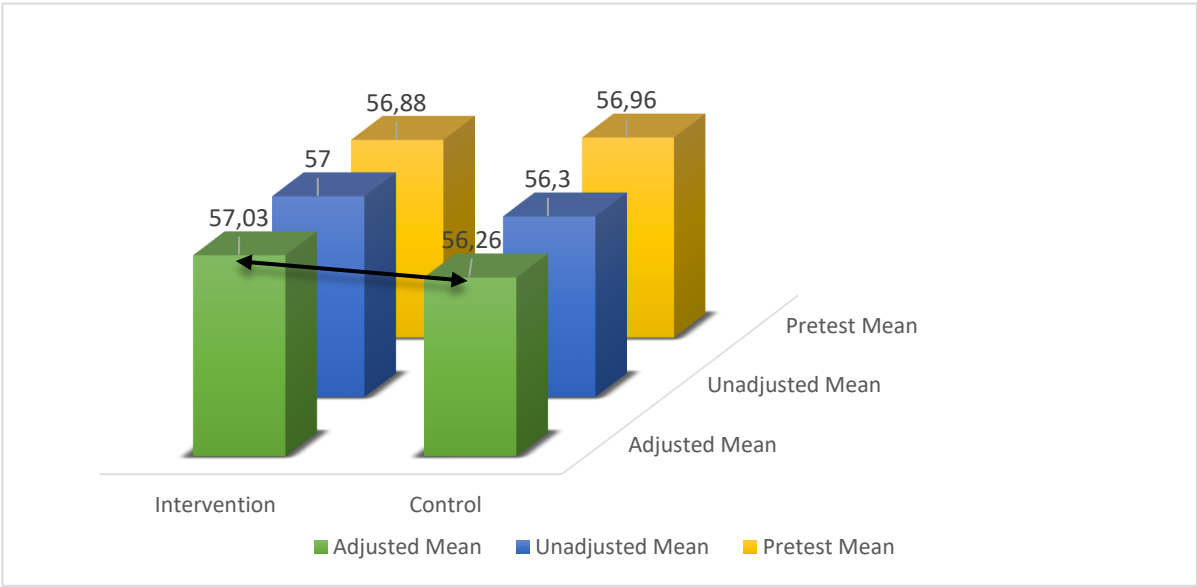
Table 12. Summary ANCOVA and Related Descriptive Statistics for Empathy Posttest of the Groups (Classroom-Based Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	57.00	5.55	57.03	0.57	1	0.85	.362	.015
Control	56.30	5.04	56.26	0.62				

Note: df represents degree of freedom; df for Error=56; N=59, n (intervention)=32, n (control)=27; the significance level is < .05.

As can be seen from Table 12, the intervention group had slightly higher mean empathy posttest scores compared to the control group. However, the ANCOVA results show the difference is not statistically significant (p > .05). Figure 7 illustrates the mean empathy pretest, unadjusted posttest, and adjusted posttest scores for the groups. These results suggest, after the intervention, the intervention group did not report higher empathy levels. Thus, the answer to the seventh research question is that "the classroom-based mindfulness program is not effective in improving empathy levels among social work students."

Figure 7. Mean Empathy Scores for the Groups (Classroom-Based Students)



4.2. SECTION TWO: THE EFFECTIVENESS OF THE ONLINE MINDFULNESS COURSE

In this section, regarding the research questions of 1 to 7, we investigate the effectiveness of the online mindfulness course. First, the results of preliminary statistical analyses have been reported below.

4.2.1. Preliminary Statistical Analyses

To examine if there were any differences between the intervention and control groups on the pretest scores, and to catch a glimpse of these differences, a series of Independent Samples T-Tests were utilized (Table 14). First, the Shapiro-Wilk test was used to test the normality distribution of each pretest variable with the group variable factored in. The results of the normality tests showed the data were normally distributed (Table 13).

Table 13. The Results of the Shapiro-Wilk Test of Normality for Pretest Variables of the Groups (Online Students)

		Shapiro-Wilk		
Variable	*Group*	*Statistic*	*df*	*p*
Depression pretest	Intervention	.932	23	.121
	control	.921	19	.117
Anxiety pretest	Intervention	.926	23	.088
	Control	.968	19	.728
Stress pretest	Intervention	.978	23	.862
	Control	.962	19	.619
Self-compassion pretest	Intervention	.961	23	.482
	control	.964	19	.651
Rumination pretest	Intervention	.982	23	.934
	Control	.927	19	.151
Mindfulness pretest	Intervention	.937	23	.158
	Control	.981	19	.957
Empathy pretest	Intervention	.944	23	.219
	Control	.934	19	.201

Note: df represents degree of freedom; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

Table 14. Independent Samples T-Test Comparing the Groups (Online Students) on the Pretest Variables

Variable	*Groups*	*M*	*SD*	*t*	*df*	*p*
Depression pretest	Intervention	17.39	8.01	0.69	40	.496
	Control	16.21	8.79			
Anxiety pretest	Intervention	11.13	7.36	-0.20	40	.841

	Control	11.58	6.91			
Stress pretest	Intervention	19.30	7.38	0.45	40	.654
	Control	18.21	8.32			
Self-compassion pretest	Intervention	2.72	0.65	-0.84	40	.405
	Control	2.88	0.56			
Rumination pretest	Intervention	99.57	15.07	1.14	40	.259
	Control	92.68	23.65			
Mindfulness pretest	Intervention	3.96	0.78	-0.12	40	.909
	Control	3.99	0.88			
Empathy pretest	Intervention	57.26	5.19	0.48	40	.634
	Control	56.47	5.42			

Note: M, SD, and df represent Mean, Standard Deviation, and degree of freedom, respectively; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

As obvious from Table 14, there were some slight and not statistically significant differences between the intervention and control groups at the mean pretest scores of the variables ($p > .05$), implying that the random allocation was successful (in the online module, we divided the participants randomly).

4.2.2. Statistical Analyses for Effectiveness

A one-way analysis of covariance (ANCOVA) was applied to compare the intervention and control groups on each dimension (self-compassion, depression, anxiety, stress, rumination mindfulness, and empathy). If the intervention group gained better mean scores, we can say that the online mindfulness intervention was effective on that dimension. In ANCOVAs, the pretests was included as the covariate.

Before conducting the ANCOVAs, I evaluated the assumptions. Like reporting for the classroom module, in order to list the main analyses less elaborately, first, I have summarized the assumptions' results for all the dimensions. Then, for each ANCOVA, I have reported only the main analyses.

a) The normality distribution of the dependent variable by each level of the independent variable

The Shapiro-Wilk test was used to examine the normality distribution of posttest variables. The results showed that the scores of the groups in all variables were normally distributed except the scores of intervention group in the depression and anxiety (Table 15).

Table 15. The Results of the Shapiro-Wilk Test of Normality for Posttest Variables of the Groups (Online Students)

		Shapiro-Wilk		
Variable	*Group*	*Statistic*	*df*	*p*
Depression posttest	Intervention	.909	23	.038
	Control	.927	19	.155
Anxiety posttest	Intervention	.894	23	.019
	Control	.921	19	.118
Stress posttest	Intervention	.929	23	.106
	Control	.957	19	.516
Self-compassion posttest	Intervention	.970	23	.691
	Control	.902	19	.054
Rumination posttest	Intervention	.933	23	.128
	Control	.948	19	.360
Mindfulness posttest	Intervention	.957	23	.403
	Control	.942	19	.287
Empathy posttest	Intervention	.955	23	.375
	Control	.936	19	.224

Note: df represents degree of freedom; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

The skewness and kurtosis values of those distributions that were significant in the Shapiro-Wilk test were screened, and their skewness and kurtosis values were within ±1.0; therefore, the distributions are considered relatively normal (Lomax & Hahs-Vaughn, 2013). Thus, the assumption of the normality distribution of the dependent variable has been met for the variables.

b) Outliers

The dependent variables and covariates (pretests) were screened for the outliers by Vertical Boxplots, resulting in no extreme outlier (values more than 3 interquartile range) for any variable. However, there were some moderate outliers (values between 1.5 and 3 interquartile range) for the valuables of depression, rumination and mindfulness posttests in the intervention group. Conducting the ANCOVA relating to these variables, neither the presence nor absence of the outliers changed the results; therefore, I decided not to exclude any of the outliers from these analyses.

c) Linear relationships between the independent variable and the covariates by each level of the independent variable

Using the Scatterplot Matrix, I screened the linear relationship between the posttest and the pretest scores by each group level of intervention and control. The results showed that all posttests had a linear relationship with their pretests, so the assumption of linear relationships with the covariates was satisfied for all the dimensions.

d) Homogeneity of regression slopes

In Table 16, for each ANCOVA, the results of the analysis evaluating the homogeneity of regression slopes have been summarized.

Table 16. The Results of the Analysis Evaluating the Homogeneity of Regression Slopes for the Groups (Online Students)

Dependent	*Independent × Covariate*	*df*	*MS*	*F*	*p*
Depression posttest	Group × depression pretest	1	83.41	1.66	.205
Anxiety posttest	Group × anxiety pretest	1	142.81	3.92	.055
Stress posttest	Group × stress pretest	1	64.13	1.45	.236
Self-compassion posttest	Group × self-compassion pretest	1	.106	.736	.396
Rumination posttest	Group × rumination pretest	1	965.98	3.24	.080
Mindfulness posttest	Group × mindfulness pretest	1	.934	2.83	.101
Empathy posttest	Group × empathy pretest	1	17.27	2.89	.097

Note: df and MS represent degree of freedom and Mean Square, respectively; the significance level is < .05.

As shown in Table 16, for none of the dimensions, the relationship between the covariate (pretest) and the dependent variable (posttest) did not differ significantly as a function of the independent variable (group); thus, the assumption of homogeneity of regression slopes has been met for all seven dimensions.

e) Homogeneity of variances

Table 17 shows the results of Levene's test of equality of variances utilized to examine the homogeneity of posttest variances.

Table 17. Levene's Test of Equality of Variances on Posttest Scores of the Groups (Online Students)

Variable	*F*	*df1*	*df2*	*p*
Depression posttest	0.63	1	40	.432
Anxiety posttest	1.19	1	40	.281
Stress posttest	0.11	1	40	.741
Self-compassion posttest	3.76	1	40	.059
Rumination posttest	2.20	1	40	.146
Mindfulness posttest	0.12	1	40	.730
Empathy posttest	3.51	1	40	.068

Note: the significance level is < .05.

As can be seen from Table 17, the results of Levene's test was not significant for any of the dimensions. Thus, the assumption of homogeneity of variance was satisfied for all the dimensions.

After meeting ANCOVAs assumptions, below, I have reported the ANCOVAs for each dimension, under the direction of the research questions for the online mindfulness program.

4.2.2.1. The Effects of the Online Program on Depression

Research Question 1: Does the online mindfulness program decrease depression levels among social work students?

Considering the depression pretest as the covariate, a one-way ANCOVA was utilized to compare the intervention and the control groups on the depression posttest scores (Table 18).

Table 18. Summary ANCOVA and Related Descriptive Statistics for Depression Posttest Scores of the Groups (Online Students)

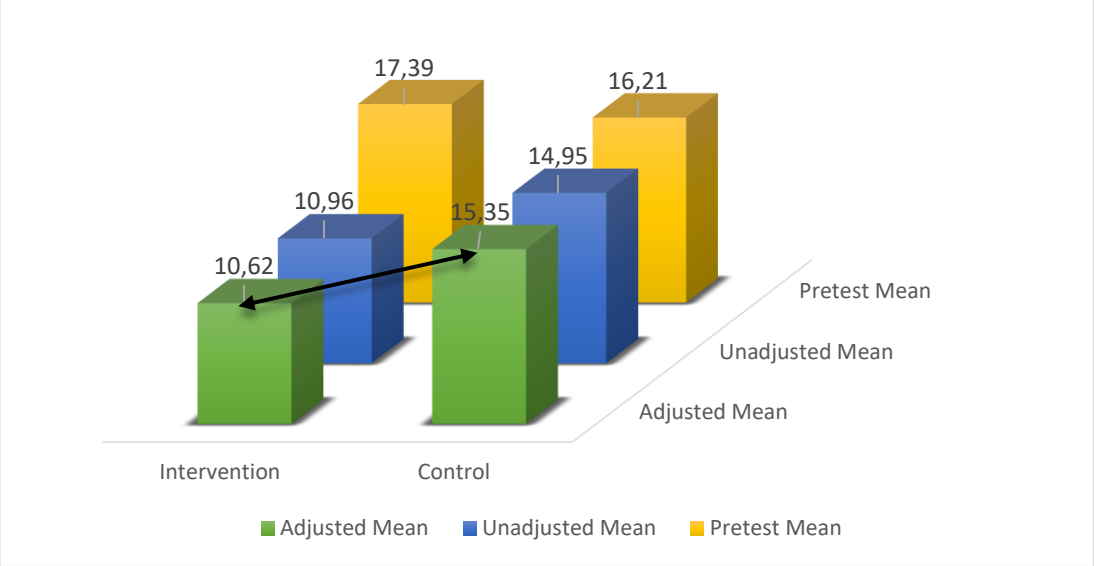
Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	10.96	7.55	10.62	1.49	1	4.54	.039	.104
Control	14.95	1.05	15.35	1.64				

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

The results of the ANCOVA reported in Table 18 show the difference between the groups on mean depression posttest scores was statistically significant (p <

.05) so that the intervention group gained better posttest scores, implying they reported fewer symptoms of depression than the control group. Figure 8 illustrates the mean depression pretest, posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible. Therefore, the answer to the first research question is that “the online mindfulness program is effective in reducing depression levels among social work students.”

Figure 8. Mean Depression Scores for the Groups (Online Students)



4.2.2.2. The Effects of the Online Program on Anxiety

Research Question 2: Does the online mindfulness program decrease anxiety levels among social work students?

A one-way ANCOVA was conducted to analyze the difference between the intervention and control groups on the anxiety posttest scores, with the anxiety pretest as the covariate (Table 19).

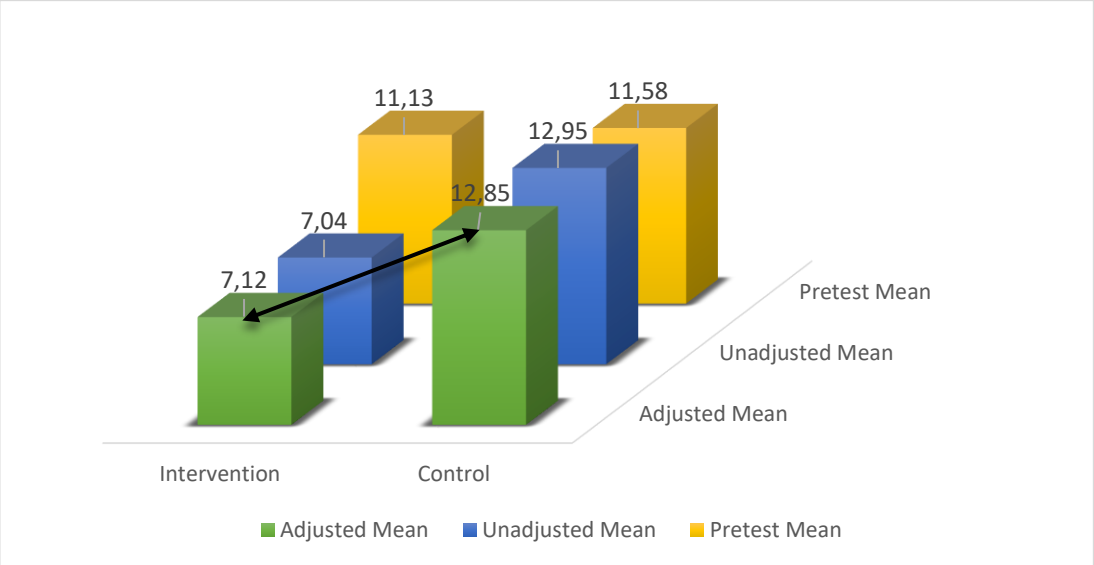
Table 19. Summary ANCOVA and Related Descriptive Statistics for Anxiety Posttest of the Groups (Online Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	7.04	5.46	7.12	1.31	1	8.71	.005	.183
Control	12.95	8.09	12.85	1.44				

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

As is clear from Table 19, the results of the ANCOVA for anxiety scale show there was a statistically significant difference between the groups on the mean posttest scores, with lower mean scores for the intervention group ($p < .05$), indicating that they experienced fewer anxiety symptoms after the intervention. Figure 9 illustrates the mean anxiety pretest, unadjusted posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily noticeable. Therefore, the answer to the second research question is that "the online mindfulness program is effective in reducing anxiety levels among social work students."

Figure 9. Mean Anxiety Scores for the Groups (Online Students)



4.2.2.3. The Effects of the Online Program on Stress

Research Question 3: Does the online mindfulness program decrease stress levels among social work students?

An ANCOVA was utilized to examine the difference between the intervention and control groups on mean stress posttest scores (Table 20).

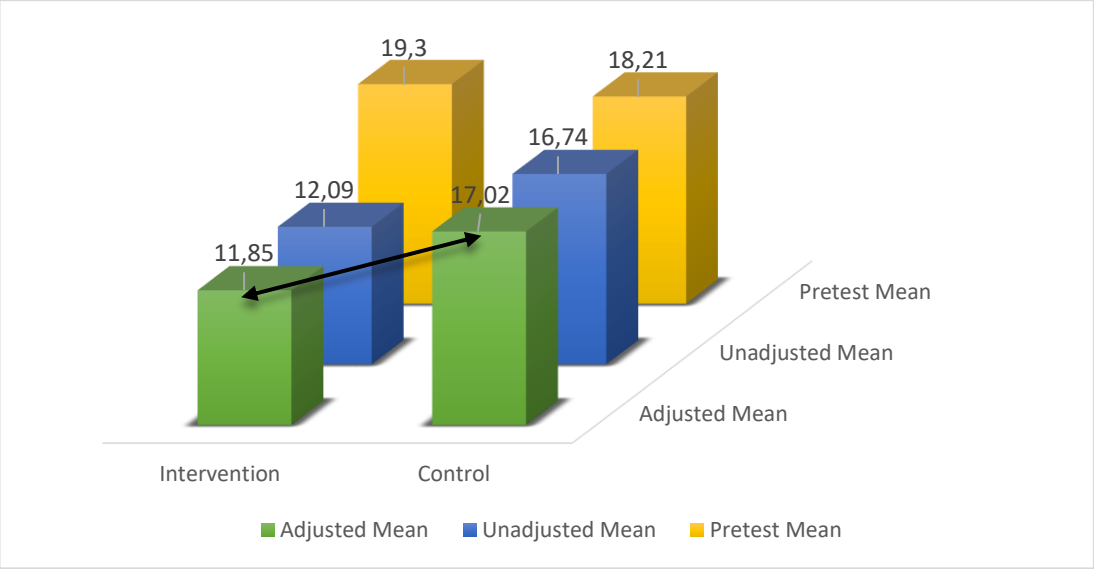
Table 20. Summary ANCOVA and Related Descriptive Statistics for Stress Posttest of the Groups (Online Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	12.09	6.86	11.85	1.40	1	6.182	.017	.137
Control	16.74	8.36	17.02	1.54				

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

As evident from Table 20, the intervention group had lower mean stress posttest scores compared to the control group, and the ANCOVA results confirmed this difference to be statistically significant ($p < .05$). Figure 10 illustrates the mean stress pretest, unadjusted posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible, implying that the participants in the intervention group reported fewer stress symptoms than those in the control group. Therefore, the answer to the third research question is that “the online mindfulness program is effective in reducing stress levels among social work students.”

Figure 10. Mean Stress Scores for the Groups (Online Students)



4.2.2.4. The Effects of the online Program on Self-Compassion

Research Question 4: Does the program improve self-compassion among social work students?

A one-way ANCOVA was conducted to analyze whether there was a difference between the intervention and the control groups on self-compassion posttest scores, with the self-compassion pretest as the covariate (Table 21).

Table 21.Summary ANCOVA and Related Descriptive Statistics for Self-Compassion Posttest of the Groups (Online Students)

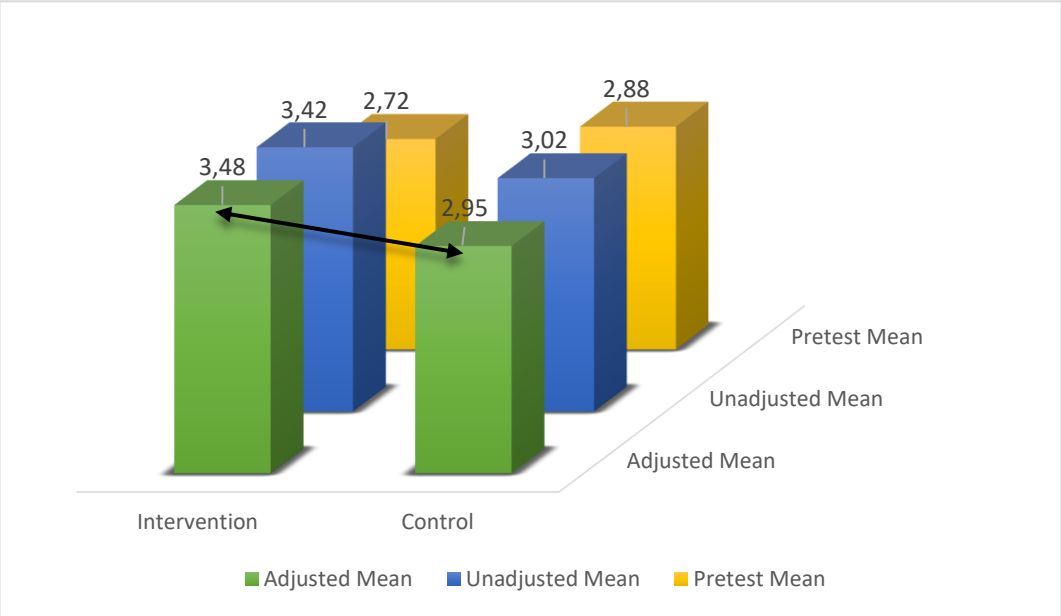
Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	3.42	0.63	3.48	0.08	1	19.49	<.001	.333
Control	3.02	0.52	2.95	0.09				

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

Based on the ANCOVA results presented in Table 21, there was a statistically significant difference between the groups on the mean self-compassion posttest scores, with higher mean scores for the intervention group ($p < .05$). The mean self-compassion pretest, unadjusted posttest, and adjusted posttest scores for

the groups have been illustrated in Figure 11. The difference between the groups' adjusted mean scores is easily visible, implying that the intervention group reported better self-compassion after the intervention. Therefore, the answer to the fourth research question is that “the online mindfulness program is effective in improving self-compassion levels among social work students.”

Figure 11. Mean Self-Compassion Scores for the Groups (Online Students)



4.2.2.5. The Effects of the Online Program on Rumination

Research Question 5: Does the program decrease rumination levels among social work students?

An ANCOVA was conducted to examine the difference between the intervention and the control groups on rumination posttest scores, considering the rumination pretest scores as the covariate (Table 22).

Table 22. Summary ANCOVA and Related Descriptive Statistics for Rumination Posttest of the Groups (Online Students)

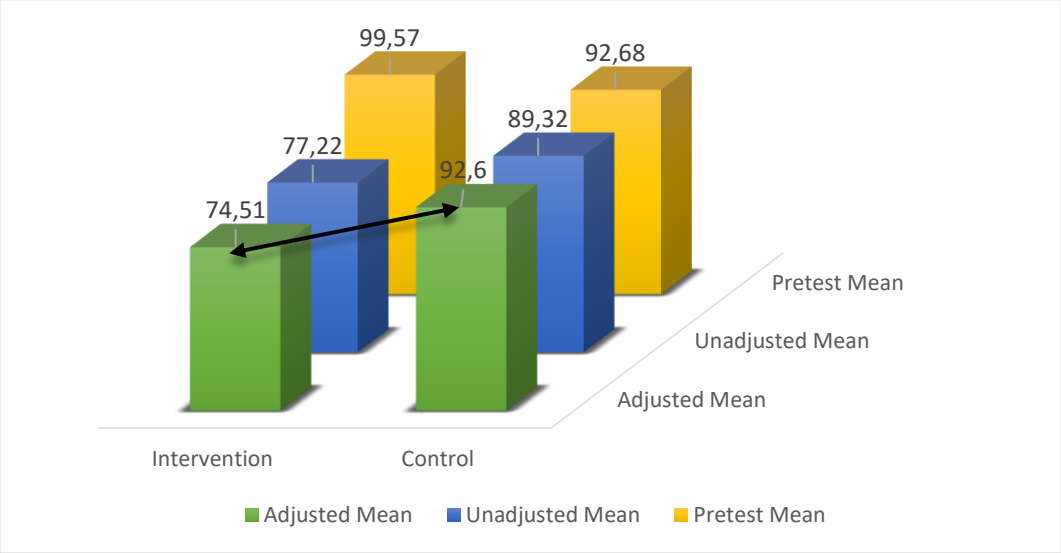
Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	77.22	19.70	74.51	3.73				

Control	89.32	29.05	92.60	4.11	1	10.46	.002	.212

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

As is clear from Table 22, the intervention group's mean rumination posttest scores was lesser than the control group. The ANCOVA results show that this difference is statistically significant ($p < .05$). Figure 12 illustrates the mean rumination pretest, unadjusted posttest, and adjusted posttest scores for the groups. These results suggest, after the intervention, the intervention group reported lesser rumination levels. Thus, the answer to the fifth research question is that "the online mindfulness program is effective in decreasing rumination levels among social work students."

Figure 12. Mean Rumination Scores for the Groups (Online Students)



4.2.2.6. The Effects of the Program on Mindfulness

Research Question 6: Does the program increase mindfulness levels among social work students?

In order to examine the difference between the groups on the mindfulness posttest scores, an ANCOVA was utilized, considering the mindfulness pretest scores as the covariate (Table 23).

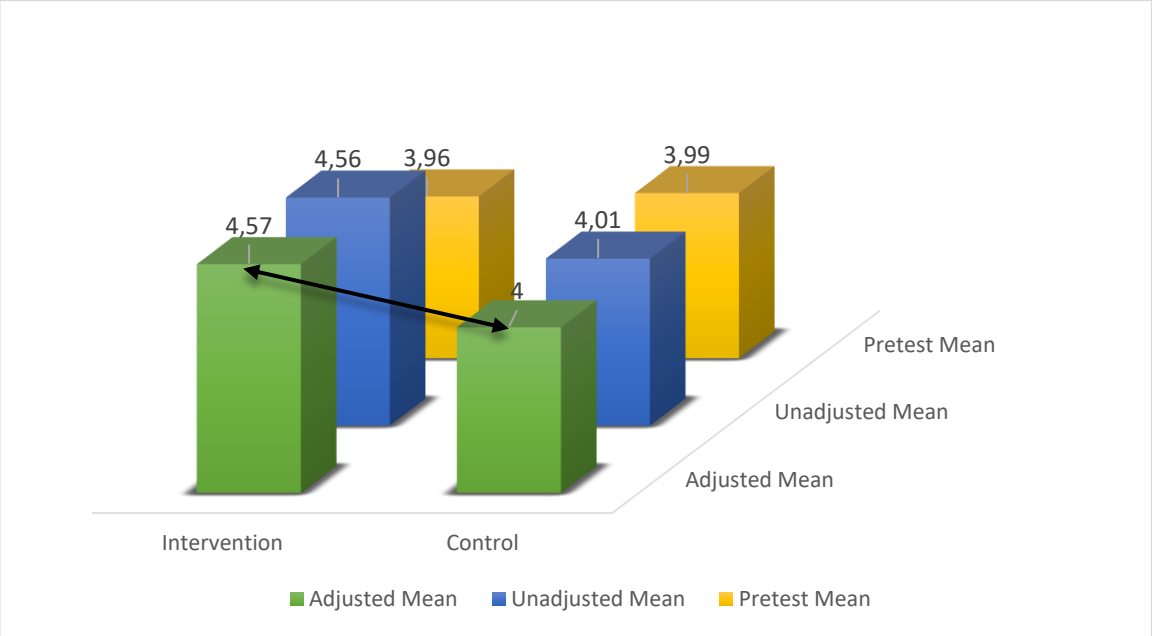
Table 23. Summary ANCOVA and Related Descriptive Statistics for Mindfulness Posttest of the Groups (Online Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	4.56	0.71	4.57	0.12	1	9.83	.003	.201
Control	4.01	0.95	4.00	0.13				

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

As is obvious from Table 23, the intervention group gained higher mean mindfulness posttest scores compared to the control group, and the ANCOVA results confirmed this difference to be statistically significant ($p < .05$). Figure 13 illustrates the mean mindfulness pretest, unadjusted posttest, and adjusted posttest scores for the groups; the difference between the groups' adjusted mean scores is easily visible. These results suggest that the intervention group reported higher levels of mindfulness after the intervention. Thus, the answer to the sixth research question is that "the online mindfulness program is effective in improving mindfulness levels among social work students."

Figure 13. Mean Mindfulness Scores for the Groups (Online Students)



4.2.2.7. The Effects of the Program on Empathy

Research Question 7: Does the program foster empathy among social work students?

In order to examine whether there was a difference between the intervention and the control groups on empathy posttest scores, an ANCOVA was utilized, considering the empathy pretest scores as the covariate (Table 24).

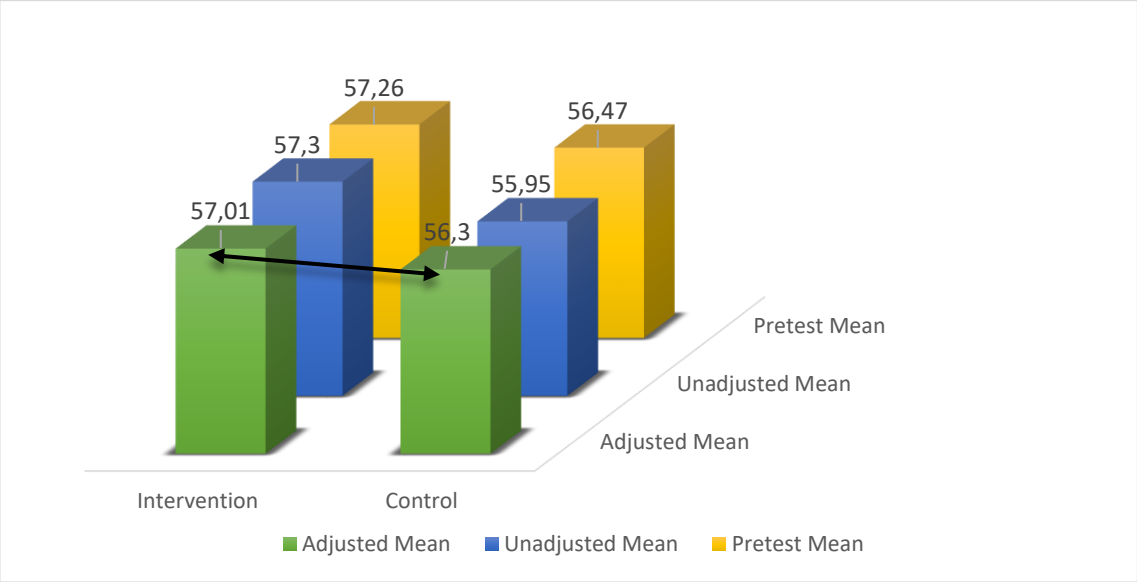
Table 24. Summary ANCOVA and Related Descriptive Statistics for Mindfulness Posttest of the Groups (Online Students)

Groups	*Unadjusted Mean*	*Standard Deviation*	*Adjusted Mean*	*Standard Error*	*df*	*F*	*p*	η^2
Intervention	57.30	5.22	57.01	0.52	1	.820	.371	.021
Control	55.95	4.80	56.30	0.58				

Note: df represents degree of freedom; df for Error=39; N=42, n (intervention)=23, n (control)=19; the significance level is < .05.

As can be noted from Table 24, in comparison with the control group, the intervention group gained somewhat higher mean empathy posttest scores. Nevertheless, the ANCOVA results show the difference is not statistically significant ($p > .05$). Figure 14 depicts the mean empathy pretest, unadjusted posttest, and adjusted posttest scores for the groups. These results suggest, after the mindfulness intervention, the intervention group did not report higher empathy levels. Thus, the answer to the seventh research question is that “the online mindfulness program is not effective in fostering empathy levels among social work students.”

Figure 14. Mean Empathy Scores for the Groups (Online Students)



4.3. SECTION THREE: MEDIATION ANALYSES

In this section, I reported the results of mediation analyses in order to answer the eighth research question, which investigated the possible working mechanism of our brief mindfulness intervention. Mediation analyses examine how a variable (mediator) may mediate the link between an independent variable (predictor) and a dependent variable (outcome; Hayes, 2012). In intervention researches, these analyses investigate whether there is a variable (or variables) mediating the treatment effect; in other words, how the intervention works (MacKinnon, Fairchild, & Fritz, 2007; Mansell, Hill, Main, Vowles, & van der Windt, 2016).

In this study, the mediation analyses were run only to the posttest variables that their ANCOVA results were statistically significant (i.e., the intervention affected these variables), and if they were correlated with each other (Table 24). Moreover, the previous researches were considered in choosing the mediators and the outcome variables.

In mediation analyses, all the participants (traditional classroom-based and online students; N=101) were used altogether because the results of ANCOVA in both

modules (classroom-based and online) were similar. In both modules, the results of ANCOVAs for posttest variables of three dimensions, namely, depression, anxiety, and stress, were statistically different. However, for the dimension of empathy, the results were not significant in neither the classroom nor the online module, implying the intervention was not effective on this dimension. Therefore, I eliminated this dimension from the mediation analyses.

Table 25.Pearson's Correlation Test Results

Posttest variables	1	2	3	4	5
1. Depression posttest					
2. Anxiety posttest	.569**				
3. Stress posttest	.641**	.732**			
4. Self-Compassion posttest	-.572**	-.407**	-.462**		
5. Rumination posttest	.566**	.550**	.621**	-.685**	
6. Mindfulness posttest	-.598**	-.572**	-.585**	.591**	-.678**

*Note: ** p < .01*

As obvious from Table 25, there were significant correlations between the posttest variables. In this regard, and considering the previous researches, the variable of group (intervention/control) considered as the predictor variable, self-compassion, rumination, and mindfulness as the mediators, and depression, anxiety, and stress as the outcome variables. Therefore, there were a total of three parallel multiple mediation analyses (figures15-17).

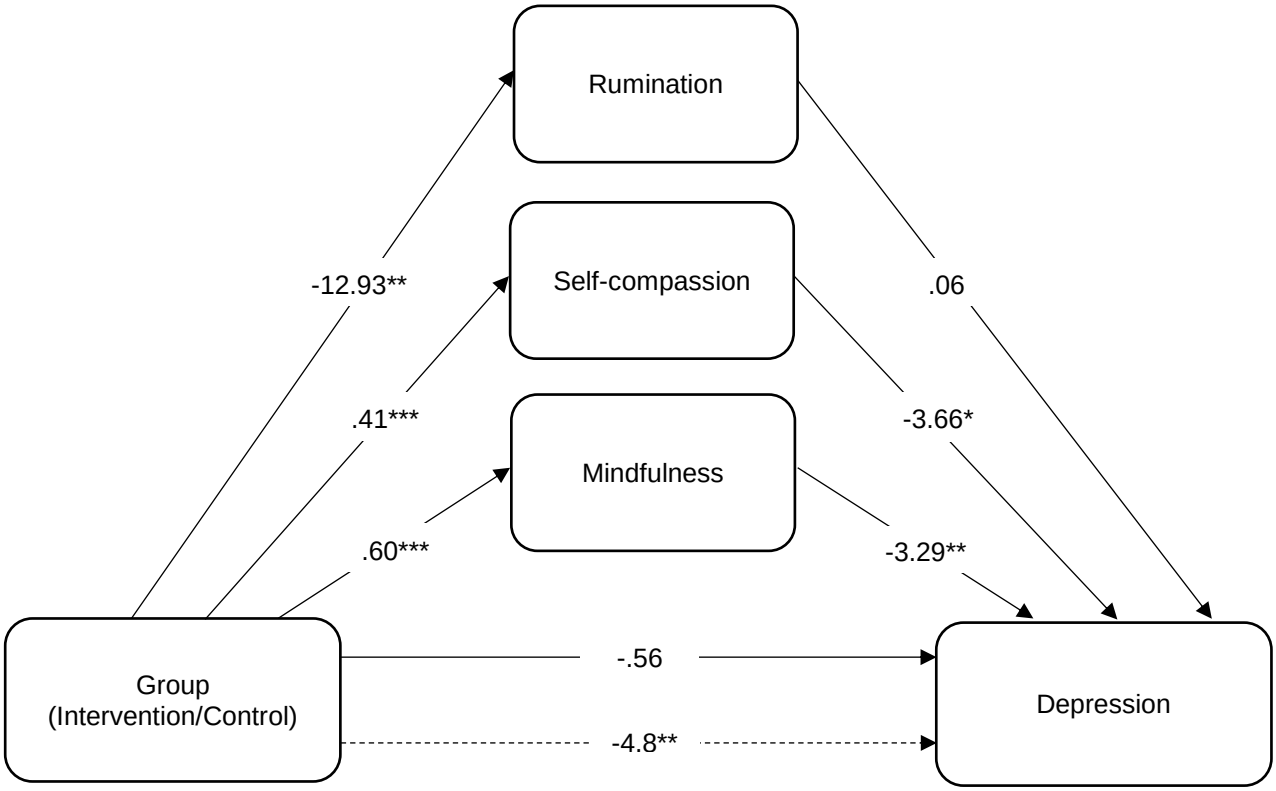
4.3.1. Mediation between the Intervention and Depression

Research Question 8 for depression: Are the effects of the brief mindfulness intervention on depression were mediated by variables of mindfulness, self-compassion, and rumination?

To examine the direct and indirect effects of the intervention and mediating variables on depression, a parallel multiple mediation analysis was conducted. Mindfulness, self-compassion, and rumination were simultaneously entered as mediators for the relationship between intervention and depression. The mediational relationship model is illustrated in Figure 15.

Using bootstrap analyses, the significance of the indirect pathways was tested. The total indirect effect via mindfulness, self-compassion, and rumination was significant (indirect effect = -4.23, bootstrapped 95% confidence interval of -6.61– -2.02). Significant indirect effects were observed for mindfulness (indirect effect = -1.98, bootstrapped 95% confidence interval of -4.03– -.40) and self-compassion (indirect effect = -1.52, bootstrapped 95% confidence interval of -3.14– -.31), but not for rumination (indirect effect = -.74, bootstrapped 95% confidence interval of -2.11– .27). These findings suggest that the mediators accounted for the effect of the intervention on depression. The three mediators collectively mediated the relationship between intervention and depression. Moreover, mindfulness and self-compassion alone could mediate this relationship, implying that the intervention can affect the depression by altering only one of those mediators.

Figure 15. The mediation model for mediating effect of changes in mindfulness, self-compassion, and rumination on change in depression.



Note: All values are beta coefficients. Values on arrows show the relationships between the two variables when all variables are included. Dashed arrow denotes the total effect of the whole model on depression.
*N=101. * P < .05, ** P < .01, *** P < .001.*

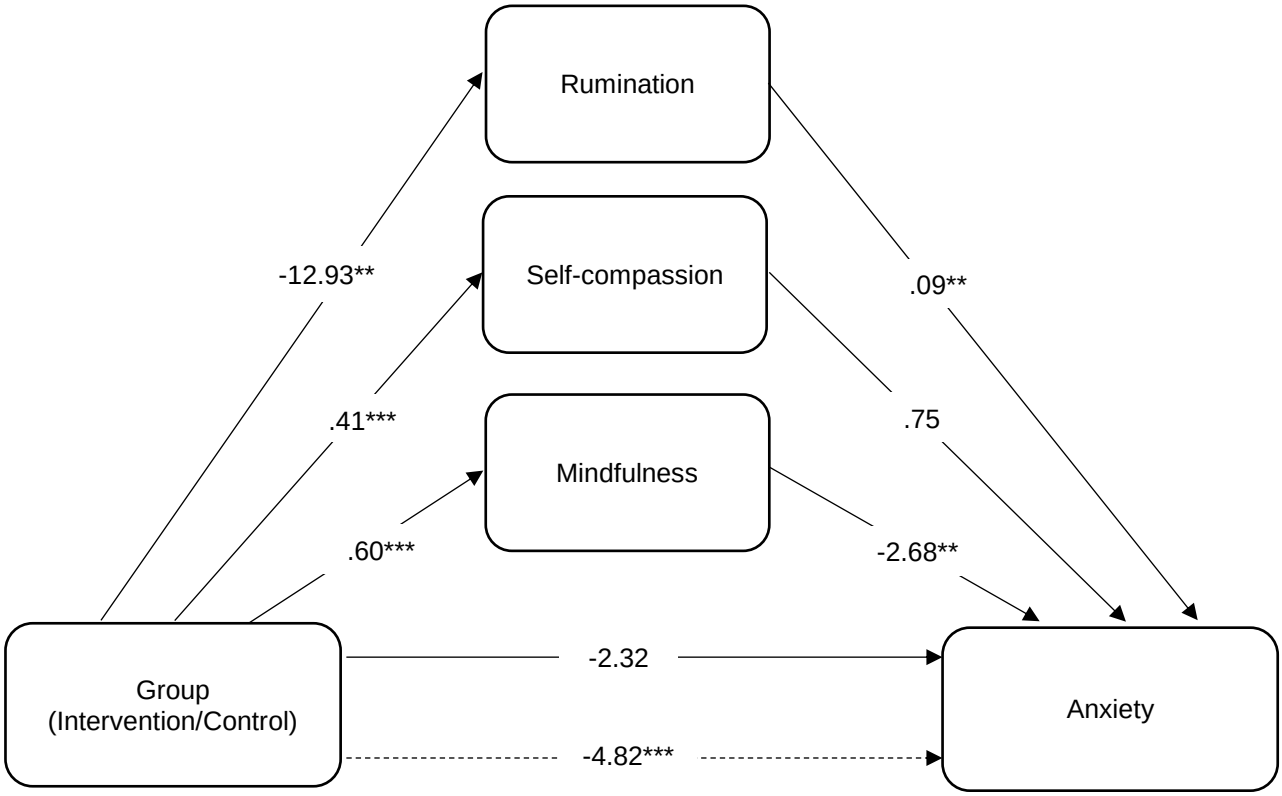
4.3.2. Mediation between the Intervention and Anxiety

Research Question 8 for anxiety: Are the effects of the brief mindfulness intervention on anxiety were mediated by variables of mindfulness, self-compassion, and rumination?

A parallel multiple mediation analysis was conducted to test the direct and indirect effects of the intervention and mediating variables on anxiety. Mindfulness, self-compassion, and rumination were simultaneously entered as the mediators in the model. The mediational relationship model is depicted in Figure 16.

In order to examine if the indirect pathways are significant, bootstrapping analyses were employed. The total indirect effect via mindfulness, self-compassion, and rumination was significant (indirect effect = -2.51, bootstrapped 95% confidence interval of -4.44– -.79). Significant indirect effects were observed for rumination (indirect effect = -1.21, bootstrapped 95% confidence interval of -2.77– -.12) and mindfulness (indirect effect = -1.61, bootstrapped 95% confidence interval of -3.35– -.41), but not for self-compassion (indirect effect = .31, bootstrapped 95% confidence interval of -.70– 1.48). These findings suggest that the mediators accounted for the effect of the intervention on depression. The three mediators collectively mediated the relationship between intervention and anxiety. Additionally, rumination and mindfulness alone could mediate this relationship, implying that the intervention can affect the anxiety by altering only one of those mediators.

Figure 16. The mediation model for mediating effect of changes in mindfulness, self-compassion, and rumination on change in anxıety.



Note: All values are beta coefficients. Values on arrows show the relationships between the two variables when all variables are included. Dashed arrow denotes the total effect of the whole model on anxiety.
*N=101. ** P < .01, *** P < .001.*

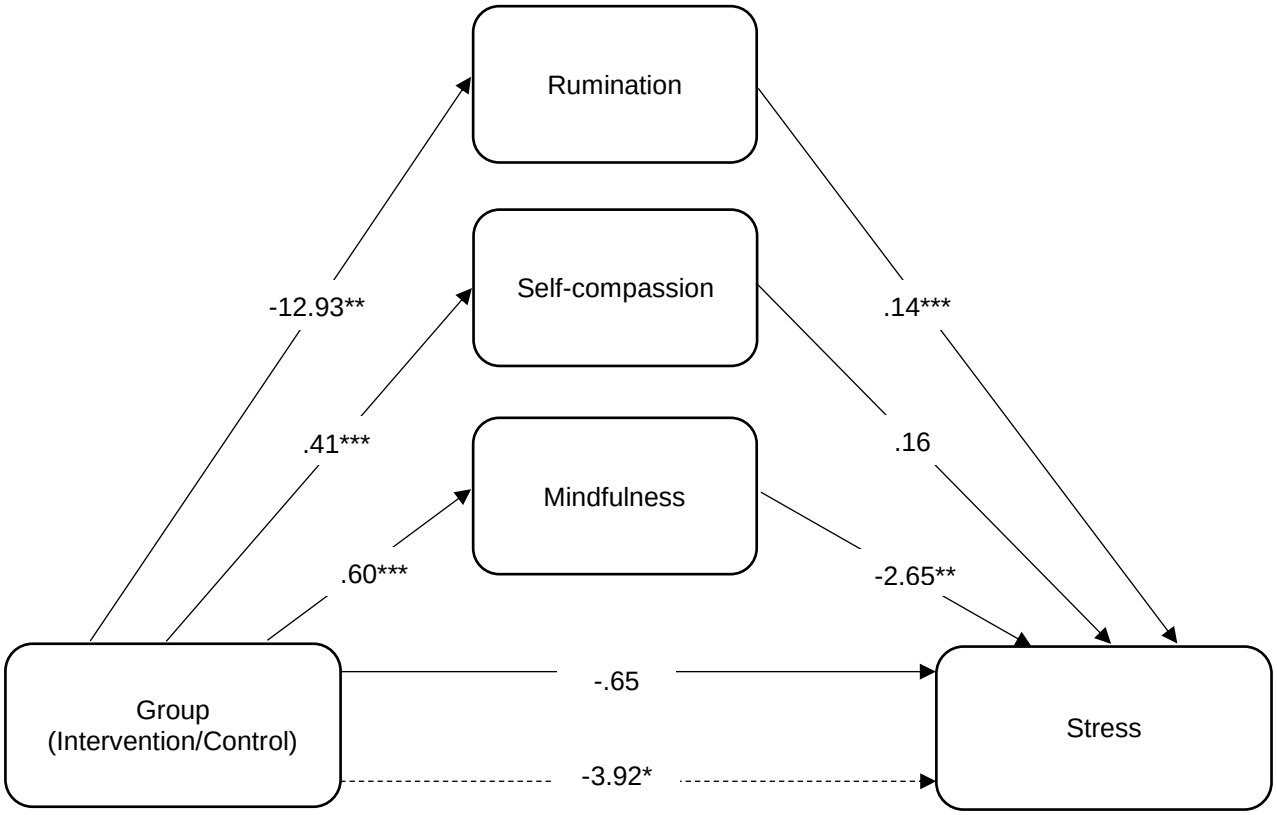
4.3.3. Mediation between the Intervention and Stress

Research Question 8 for stress: Are the effects of the brief mindfulness intervention on stress were mediated by variables of mindfulness, self-compassion, and rumination?

To examine the direct and indirect effects of the intervention and mediating variables on stress, a parallel multiple mediation analysis was conducted. Mindfulness, self-compassion, and rumination were simultaneously entered as mediators, intervention as the predictor, and stress as the outcome variable. The mediational relationship model is illustrated in Figure 17.

To examine the significance of the indirect pathways, bootstrapping analyses were utilized. The total indirect effect via mindfulness, self-compassion, and rumination was significant (indirect effect = -3.27, bootstrapped 95% confidence interval of -5.38– -1.16). Significant indirect effects were observed for rumination (indirect effect = -1.74, bootstrapped 95% confidence interval of -3.68– -.34) and mindfulness (indirect effect = -1.59, bootstrapped 95% confidence interval of -3.30– -.29), but not for self-compassion (indirect effect = .07, bootstrapped 95% confidence interval of -.94– 1.04). These findings suggest that the mediators accounted for the effect of the intervention on stress. The three mediators collectively mediated the relationship between intervention and stress. Additionally, rumination and mindfulness individually could mediate this relationship, implying that the intervention can affect the stress by altering only one of those mediators.

Figure 17. The mediation model for mediating effect of changes in mindfulness, self-compassion, and rumination on change in stress.



Note: All values are beta coefficients. Values on arrows show the relationships between the two variables when all variables are included. Dashed arrow denotes the total effect of the whole model on stress.
*N=101. * P < .05, ** P < .01, *** P < .001.*

CHAPTER 5. DISCUSSION

In this chapter, related to the previous studies, first, I have discussed the results obtained from the fourth chapter. The main aim of this study was to examine whether our four-week mindfulness program, presenting in two different (traditional classroom-based and online) modules, was effective in improving the social work students' psychological health, as well as promoting their empathy levels (results for research questions 1-7). Then, the possible working mechanism of the intervention was discussed (results for research question 8). Furthermore, in this chapter, I provide some implications that the study can have and some recommendations for future research. Finally, I closed the chapter with a conclusion section.

5.1. THE EFFECTIVENESS

In this study, the results related to the effectiveness of both modules (classroom and online) were similar; therefore, I discussed the effectiveness of the brief mindfulness intervention regardless of the modules. There is a limited number of studies on mindfulness in social work discipline, especially the studies that examine the effectiveness of brief mindfulness programs.

5.1.1. The Effects on Psychological Distress (Depression, Anxiety, and Stress)

The results of the current study indicated that, after implementing our brief mindfulness program, the intervention group reported lower depression, anxiety, and stress symptoms than the control group. It means that the brief mindfulness intervention can be effective in decreasing the levels of these three important factors of psychological distress among third-year undergraduate social work students. In other words, our mindfulness intervention can lead the students to better psychological health.

The findings mentioned above are mostly congruent with those of previous studies investigating the effectiveness of mindfulness interventions on depression, anxiety and stress levels of participants. For instance, the results of the research conducted by Demarzo et al. (2017) revealed that both their standard eight-week mindfulness program and a four-week brief version similarly decreased depression and anxiety levels among undergraduate students. In another study, Sass et al. (2019) reported a weekly five-session training (75-min sessions) was effective in decreasing university students' distress. The researchers argued that brief mindfulness intervention was able to help university students, who are not seeking treatment, to improve their psychological health. Also in an effectiveness study done by Shearer et al. (2016) they reported their brief mindfulness program (four weekly one-hour sessions) was able to lower anxiety and stress, and dysphoria (a state of unease or dissatisfaction) among college students. The researchers suggested that brief mindfulness training for college students can help them manage their stress, especially in response to the stressors of their academic life.

In Turkey, Öksüz (2018) examined the effects of an online MBSR program on university students, including nine social work students. In this doctoral thesis study, the researcher reported that, after implementing the program, students reported higher levels of wellbeing. However, the intervention used in this study was an online and eight-week standard MBSR program.

The results of the current study are also congruent with the results reported by Roulston et al. (2018), exploring the impact of relatively short mindfulness training consisted of 6 weekly 2-hour sessions on mental well-being, resilience, and stress among social work students. They reported that the training improved the participants' mental well-being and reduced their stress. Researchers recommended mindfulness training can be offered as a self-care approach to social work students.

However, the results of the current study are not consistent with the research conducted by Gockel et al. (2013). They investigated the effects of a brief 10-min mindfulness training (plus 5 min of discussion), which took place in each 28 clinical interviewing classes. Although the intervention was effective in some other aspects (such as counseling self-efficacy) among social work students, they could not find the intervention to be effective on the students' well-being. Similarly, Thomas (2017) in a study, exploring the effectiveness of a very brief mindfulness training (10 min for each class session, once a week, for a total of 10 weeks, added to the social work classes), found that the outcomes of quantitative measures such as emotional regulation did not significantly change in the intervention group. However, qualitative results revealed the students perceived the brief mindfulness training as helpful in "managing their anxiety, staying present-focused with clients, reducing premature judgment, and feeling safe and connected in the classroom."

The differences in findings of the current study with the results of Gockel et al. (2013) and Thomas (2017) may be due to the length and type of their mindfulness intervention. Our intervention was longer than the study of Thomas (2017), and also our program supported with highly visual materials, as well as every-day home meditation assignments. These can increase learning and the impact of the program on the participants.

5.1.2. The Effects on Rumination

After implementing our brief mindfulness, the results revealed the participants in the intervention group reported less ruminative thoughts than the control group. It implies that the intervention can be effective in decreasing the repetition of the ruminative thinking style among third-year undergraduate social work students. Ruminative thinking style correlates positively with both depression and anxiety (Nolen-Hoeksema, 2000; Olatunji et al., 2013; Riley et al., 2019), so the less rumination, the better psychological health.

The findings of the current study about the ruminative thinking style are consistent with previous research that reported a reduction in rumination after participating in mindfulness interventions (Perestelo-Perez, Barraca, Peñate, Rivero-Santana, & Alvarez-Perez, 2017). For example, Cerna, García, and Téllez (2020) reported their brief, four-session mindfulness program could reduce rumination (and increase some other positive psychological aspects such as well-being) among the participants.

5.1.3. The Effects on Self-Compassion

The results have shown that after implementing our brief mindfulness intervention, in contrast to the control group, the intervention group reported higher levels of self-compassion. Thus, the program can be effective in increasing self-compassion among third-year undergraduate social work students. Self-compassion has a positive relationship with psychological health. Increasing self-compassion means that the participants are more likely to be happier, optimistic, and satisfied towards life, and less depressed, anxious, and stressed (Neff, 2011).

The results of the current study are congruent with the research conducted by Moore et al. (2020). They found positive effects of their brief online mindfulness training program on rural medical students. The participants' self-compassion increased, and their stress levels decreased. However, in the study conducted by Demarzo et al. (2017), they reported that neither four-week nor eight-week programs could change self-compassion levels of undergraduate students. This difference in results can be because of the contents of our brief mindfulness program, which contains elements of self-compassion, and trains the participants to be more compassionate towards themselves, so it can be useful in improving self-compassion.

5.1.4. The Effects on Mindfulness

The findings about the variable of mindfulness (trait mindfulness) indicated that the intervention group increased their mindfulness levels by participating in our brief mindfulness intervention, implying that the program can be effective in improving mindfulness among third-year undergraduate social work students. The research supports that the more mindful individuals are, the happier and less depressed or worried they tend to be (Bice, Ball, & Ramsey, 2014; Killingsworth & Gilbert, 2010).

The findings above are constant with the study done by Demarzo et al. (2017), in which they reported both standard eight-week mindfulness program and four-week brief version could improve mindfulness among undergraduate students. Also, the results are congruent with the study conducted by Öksüz (2018) in Turkey, which examined the effects of an online MBSR program on university students, including nine social work students. After implementing the program, students reported higher levels of mindfulness (and some other factors such as wellbeing and forgiveness).

5.1.5. The Effects on Empathy

Based on the results related to the changes in empathy levels, our brief mindfulness intervention could not be effective in fostering the empathy levels among third-year undergraduate social work students. This finding is congruent with the results of the study done by Thomas (2017), in which the researcher did not find any significant changes in their quantitative measures of empathy and some other variables among social work students.

However, in the study conducted by Centeno and Fernandez (2020), the researchers reported that their eight-week MBCT program was effective in improving empathy among undergraduate students. Observing different results in this study can be due to the length of their mindfulness intervention, which is a standard version of MBCT program; whereas, our intervention was a brief version

based on MBCT. Therefore, in order to foster empathy, there may need to consider the longer mindfulness interventions.

5.2. THE POSSIBLE WORKING MECHANISMS (MEDIATIONS)

In this section, I discussed the results of mediation analyses. These analyses examined whether the effects of the brief mindfulness intervention on three outcome variables (depression, anxiety, and stress) were mediated by potential mediators (mindfulness, self-compassion, and rumination). In other words, these analyses investigated the possible working mechanisms of the brief mindfulness intervention. However, confirming that a variable is a mediator of the effects of our intervention does not definitely prove it as a mechanism of change (Kazdin, 2007). Nevertheless, distinguishing mediators of change is very helpful in order to establish how an intervention works because it narrows down the search by identifying “necessary, sufficient and facilitative ingredients for intervention to achieve change” (Kazdin, 2007).

There were a total of three parallel multiple mediation analyses, each designated to one outcome variable.

5.2.1. Possible Working Mechanism of the Intervention on Depression

The results obtained from the mediation analyses indicated that self-compassion, mindfulness, but not rumination mediated the effect of the intervention on depression levels. Moreover, the three variables collectively and as a group mediated that effect. Therefore, it can be said the treatment works against depression (decreases depression levels) among third-year undergraduate social work students, by affecting the participants’ self-compassion, mindfulness, and rumination, collectively. Additionally, it can also decrease their depression by affecting just one of the variables of self-compassion or mindfulness, but not by rumination. In other words, the treatment is able to decrease depression by adjusting either self-compassion or mindfulness; however, adjusting rumination also counts, but not as much as the other two variables, and it cannot be a

possible working mechanism of our intervention against depression by itself alone.

The findings discussed above are generally consistent with the previous researches. However, there is a lack of research on mechanisms of brief mindfulness interventions, especially in social work.

The findings of the current study is congruent with the study conducted by Kuyken et al. (2010), in which they examined whether MBCT's effects are mediated by some variables such as self-compassion and mindfulness. Their finding confirmed MBCT's theoretical premise, in which the increases in self-compassion and mindfulness through treatment mediated the effect of MBCT on depression. Also, Takahashi et al. (2019) found that mindfulness and self-compassion can be important mediators of the effects of their MBCT program on people suffering from depression (and anxiety).

In a meta-analysis conducted by Gu, Strauss, Bond, and Cavanagh (2015), the researchers systematically reviewed the mediation studies on MBCT and MBSR, in order to identify potential mechanisms underlying the interventions' effects on outcomes such as depressive and anxiety symptoms, stress, psychological functioning, and wellbeing. As the possible working mechanisms of MBIs, they found moderate, but consistent evidence for rumination and mindfulness (and some other factors), and preliminary, but insufficient evidence for self-compassion.

5.2.2. Possible Working Mechanism of the Intervention on Anxiety

The results related to the mediation analyses, which investigated possible mediators of our intervention effects on anxiety, showed that rumination and mindfulness, but not self-compassion, were the mediators of this effect. Moreover, the three variables collectively and as a group could mediate that effect. Therefore, it can be said the treatment may work against anxiety (decreases anxiety levels) among third-year undergraduate social work students,

by affecting the participants' mindfulness, rumination, and self-compassion, collectively. Additionally, it can also decrease their anxiety by affecting just one of the variables of rumination or mindfulness, but not by self-compassion. In other words, the treatment is able to decrease depression by adjusting either rumination or mindfulness; however, adjusting self-compassion also counts, but not as much as the other two variables, and it cannot be a possible working mechanism of our intervention against anxiety by itself alone.

The findings above are mostly consistent with the previous research about possible underlying mechanisms of mindfulness interventions on anxiety. For example, in their systematic review, Gu et al. (2015) reported that rumination and mindfulness moderately but consistently mediated MBCT and MBSR's effects on anxiety. However, they discussed that there were preliminary, but insufficient evidence for self-compassion as a mediator of this effect. However, in a recent study done by Takahashi et al. (2019), the researchers reported that self-compassion can be an important mediator of the effects of their MBCT program on people suffering from anxiety. Therefore, further research in this area is recommended.

5.2.3. Possible Working Mechanism of the Intervention on Stress

The results related to the mediation analyses, which investigated possible mediators of our intervention effects on stress, indicated that rumination and mindfulness, but not self-compassion, were the mediators of this effect. On the other hand, the three variables collectively and as a group could mediate that effect. Therefore, it can be said the treatment may work against stress (decreases stress levels) among third-year undergraduate social work students, by affecting the participants' mindfulness, rumination, and self-compassion, collectively. Additionally, it can also decrease their stress by affecting just one of the variables of rumination or mindfulness, but not by self-compassion. In other words, the treatment is able to decrease depression by adjusting either rumination or mindfulness; however, adjusting self-compassion also counts, but not as much

as the other two variables, and it cannot be a possible working mechanism of our intervention against stress by itself alone.

The findings of mediation analyses related to stress are generally consistent with the previous researches. For example, Hindman, Glass, Arnkoff, and Maron (2015) reported that the variables of mindfulness, self-compassion, and worry together mediated effects of their mindfulness intervention on stress among undergraduate and graduate students. Also, in their systematic review, Gu et al. (2015) reported that rumination and mindfulness moderately mediated MBCT and MBSR's effects on stress; nevertheless, they discussed there were preliminary, but insufficient evidence for self-compassion as a mediator of this effect.

5.3. IMPLICATIONS AND SUGGESTIONS

This study supports the idea that a brief mindfulness education program can be feasible, both in classroom-based and online modules, in improving social work students' psychological health. As mentioned in the first chapter, self-care is a crucial matter within the social work discipline (see 1.3. significance of this study). Due to the function of our brief mindfulness education program, it can be used as a self-care tool by social work students who are potential future social workers.

Additionally, due to crowded curriculum of social work programs, many educators see the longer and standard programs very time-consuming and hard to integrate into the curriculum (Gockel et al., 2013; Thomas, 2017). Our brief mindfulness education program proved to be a brief, but still, an effective program that teaches the basics of mindfulness practices. Therefore, such brief programs are more feasible to integrate into the curriculum. After participating in a brief program, if the students wish, they can participate in longer programs such as MBSR or MBCT. Learning these relatively new and evidence-based interventions helps students to establish an effective practice in working with their clients in the future.

In Turkey, there is a lack of mindfulness courses, particularly short programs. Our brief mindfulness program can be administered either as a course incorporated

into the social work curriculum or as an additional brief program for social work students. It can be presented either as a classroom-based or an online course that can increase the accessibility of the program.

However, the current study is the first study that designed and investigated the effectiveness and possible working mechanisms of a brief mindfulness education program in Turkey. Thus, there is a real need to conduct more intervention studies, especially with mixed-method design, to examine the effectiveness and working mechanisms of such interventions.

5.4. CONCLUSION

The findings of this study showed that our brief mindfulness education program was successful in reducing psychological distress among third-year undergraduate social work students. However, it was not effective in fostering their empathy. It could be because of the length of the program so that the longer programs may be able to improve the participants' empathy levels; therefore, future researches should consider this point.

On the other hand, investigating the possible working mechanisms of our brief mindfulness education program indicated that the intervention is likely to improve the participants' psychological health by developing the participants' mindfulness and self-compassion, and lowering their rumination. Thus, when designing the interventions, targeting mindfulness, self-compassion, and rumination should be considered.

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APPENDIX 1. PERSONAL QUESTIONNAIRE

Bu dizi formlarda araştırma doğrultusunda sizden bazı bilgiler alınacaktır. Anketlerin üzerine adınızı ve soyadınızı yazmanız gerekmez. Ancak sizi olduğu gibi yansıtacak cevaplar vermenizi çok önemsiyoruz. Bu anketler bir araştırma için bilimsel amaçla kullanılacak ve verilen tüm bilgiler araştırmacı tarafından gizli tutulacaktır. Lütfen cevapsız soru bırakmayınız. Değerli katkılarınız için çok teşekkür ederiz.

Prof. Dr. Sunay İl
Doktora öğrencisi Navid-reza Hosseinzadeh Asl

1. Cinsiyet: _____
2. Yaş: _____
3. Medeni Hali: □ evli □ bekâr □ diğer
4. Eğitim Durumu (eğer şuanda öğrenci değilseniz):
□ lise mezunu □ ön lisans □ Lisans □ yüksek lisans □ doktora □ diğer
5. Mezun olduğunuz bölüm (eğer şuanda öğrenci değilseniz): _____
6. Eğitim durumu (eğer şuanda öğrenciyseniz):
□ Lisans 1. Sınıf Öğrencisi □ Lisans 2. Sınıf Öğrencisi

□ Lisans 3. Sınıf Öğrencisi □ Lisans 4. Sınıf Öğrencisi

7. Geçirdiğiniz önemli fiziksel bir rahatsızlık var mı?
□ Evet □Hayır Varsa lütfen açıklayınız:
_____
8. Sürekli kullandığınız bir ilaç var mı?
□ Evet □ Hayır Varsa lütfen ilaç adlarını yazınız:
_____
9. Geçirdiğiniz önemli bir psikolojik ya da nörolojik rahatsızlık var mı?
□ Evet □ Hayır Varsa lütfen belirtiniz:
_____
10. Geçmişte veya şu anda devam etmekte olan bir psikoterapi süreciniz var mı?
□ Evet □ Hayır Varsa lütfen belirtiniz:
_____

APPENDIX 2. DEPRESSION, ANXIETY AND STRESS SCALE - 21 ITEMS (DASS-21)

Lütfen aşağıdaki maddeleri okuyun ve SON 1 HAFTADAKİ DURUMUNUZ için size en uygun cevap seçeneklerinden birini işaretleyin.

NO	SON 1 HAFTADAKİ DURUMUNUZ	Hiçbir zaman	Bazen ve ara sıra	Oldukça sık	Her zaman
1 S	Gevşeyip rahatlamakta zorluk çektim.	0	1	2	3
2 A	Ağzımda kuruluk olduğunu fark ettim.	0	1	2	3
3 D	Hiç olumlu duygu yaşayamadığımı fark ettim.	0	1	2	3
4 A	Soluk almada zorluk çektim (*örneğin fiziksel egzersiz yapmadığım halde aşırı hızlı nefes alma, nefessiz kalma gibi).*	0	1	2	3
5 D	Bir iş yapmak için gerekli olan ilk adımı atmada zorlandım.	0	1	2	3
6 S	Olaylara aşırı tepki vermeye meyilliyim.	0	1	2	3
7 A	Vücudumda *(örneğin ellerimde)* titremeler oldu.	0	1	2	3
8 S	Sinirsel enerjimi çok fazla kullandığımı hissettim.	0	1	2	3
9 A	Panikleyip kendimi aptal durumuna düşüreceğim durumlar nedeniyle endişelendim.	0	1	2	3
10 D	Hiçbir beklentimin olmadığı hissine kapıldım	0	1	2	3
11 S	Kışkırtılmakta olduğumu hissettim	0	1	2	3
12 S	Kendimi gevşetip salıvermek zor geldi	0	1	2	3
13 D	Kendimi perişan ve hüzünlü hissettim	0	1	2	3
14 S	Beni yaptığım işten alıkoyan şeylere dayanamıyordum	0	1	2	3
15 A	Panik haline yakın olduğumu hissettim	0	1	2	3
16 D	Hiçbir şey bende heyecan uyandırmıyordu	0	1	2	3
17 D	Birey olarak değersiz olduğumu hissettim	0	1	2	3
18 S	Alıngan olduğumu hissettim	0	1	2	3
19 A	Fizik egzersiz söz konusu olmadığı halde kalbimin hareketlerini hissettim *(kalp atışlarımın hızlandığını veya düzensizleştiğini hissettim)*	0	1	2	3
20 A	Geçerli bir neden olmadığı halde korktuğumu hissettim	0	1	2	3
21 D	Hayatın anlamsız olduğu hissine kapıldım	0	1	2	3

APPENDIX 3. SELF-COMPASSION SCALE (SCS)

Aşağıdaki cümleler, zor durumlar karşısında kendinize genel olarak nasıl davrandığınızla ilgilidir. Ne sıklıkla aşağıda belirtildiği şekillerde davranma eğiliminde olduğunuza içtenlikle karar vererek size uygun ifadeyi işaretleyiniz.

Neredeyse hiçbir zaman=0 Nadiren=1 Ara sıra=2 Çoğu zaman=3 Neredeyse her zaman=4

1.	Kişiliğimin beğenmediğim yanlarına karşı anlayışlı ve sabırlı olmaya çalışırım.	0	1	2	3	4
2.	Kendimi bir şekilde yetersiz hissettiğimde, çoğu insanın da böylesi yetersizlik duyguları yaşayabileceğini kendime hatırlatmaya çalışırım.	0	1	2	3	4
3.	Kendimi üzgün hissettiğimde, yanlış giden her şeyi kafama takma ve kurma eğilimindeyimdir.	0	1	2	3	4
4.	Ben zorluklarla mücadele ederken, başka insanların yaşam koşullarının benimkinden daha kolay olduğunu hissetme eğilimi gösteririm.	0	1	2	3	4
5.	Acı veren bir şey olduğunda, durumu belirli bir zihinsel mesafeden, dengeli bir bakış açısıyla görmeye çalışırım.	0	1	2	3	4
6.	Sıkıntı çektiğim dönemlerimde, kendime karşı biraz katı yürekli olabilirim.	0	1	2	3	4
7.	Kendimi üzgün ve her şeyden kopmuş hissettiğimde, dünyada benim gibi hisseden daha pek çok insan olduğunu kendime hatırlatırım.	0	1	2	3	4
8.	Duygusal olarak acı çektiğim zamanlarda kendime karşı sevecen olmaya çalışırım.	0	1	2	3	4
9.	Yetersizliklerimi düşünmek, kendimi daha yalnız ve dünyadan kopuk gibi hissetmeme neden olur.	0	1	2	3	4
10.	Kişiliğimin beğenmediğim yanlarına karşı hoşgörüsüz ve sabırsızımdır.	0	1	2	3	4
11.	Benim için önemli olan bir şeyde başarısız olduğumda, yetersizlik hisleriyle kendimi tüketirim.	0	1	2	3	4
12.	Kendi hatalarıma ve yetersizliklerime karşı hoşgörülüyümdür.	0	1	2	3	4
13.	Benim için önemli olan bir şeyde başarısız olduğumda, bu konudaki duygularımı bastırmak veya abartmak yerine durumu olduğu gibi açık yüreklilikle anlayıp kabullenmeye çalışırım.	0	1	2	3	4
14.	Sıkıntılı dönemlerimde kendime karşı şefkatliyimdir.	0	1	2	3	4
15.	Benim için önemli bir şeyde başarısız olduğumda, bu başarısızlığın yalnız benim başıma geldiğini hissetme eğiliminde olurum.	0	1	2	3	4
16.	Hatalarıma ve yetersizliklerime karşı kınayıcı ve yargılayıcıyımdır.	0	1	2	3	4
17.	Beğenmediğim yanlarımı gördüğümde kendime yüklenir, moralimi bozarım.	0	1	2	3	4
18.	Kendimi üzgün hissettiğimde, duygularımı merakla ve açık yüreklilikle anlamaya çalışırım.	0	1	2	3	4
19.	İşler benim için kötü gittiğinde, bu zorlukların, yaşamın bir parçası olarak, herkesin başına gelebileceğini düşünürüm.	0	1	2	3	4
20.	Acı veren bir şey olduğunda, olayı gereğinden fazla büyütme eğilimi gösteririm.	0	1	2	3	4
21.	Kendimi üzgün hissettiğimde, diğer insanların çoğunun benden daha mutlu olduğunu düşünme eğilimi gösteririm.	0	1	2	3	4
22.	Bir şey beni üzdüğünde, kendimi duygularıma kaptırır giderim.	0	1	2	3	4
23.	Çok zor bir dönemden geçerken kendime ihtiyacım olan duyarlılık ve sevecenliği gösteririm.	0	1	2	3	4
24.	Başarısızlıklarımı insanlık halinin bir parçası olarak görmeye çalışırım.	0	1	2	3	4
25.	Herhangi bir şey beni üzdüğünde, duygularımı bir denge içerisinde tutmaya çalışırım.	0	1	2	3	4
26.	Gerçekten zor zamanlarda, kendime karşı sert ve acımasız olma eğilimindeyim.	0	1	2	3	4

APPENDIX 4. RUMINATIVE THOUGHT STYLE SCALE (RTS)

Aşağıdaki her bir madde için, ifadelerin sizi ne kadar tarif ettiğini cümlelerin başındaki boşluğa yazınız.

1 2 3 4 5 6 7
(Hiç) (çok iyi)

1. ____Zihnimin sürekli bazı şeyleri tekrar tekrar gözden geçirdiğini fark ederim.
2. ____Bir sorunum olduğunda bu durum uzun süre zihnimi kemirir.
3. ____Gün boyu bazı düşüncelerin tekrar tekrar zihnime üşüştüğünü fark ederim.
4. ____Bazı şeyleri sürekli düşünmekten kendimi alamam.
5. ____Birileriyle karşılaşma öncesinde olabilecek bütün senaryoları ve konuşmaları zihnimde canlandırırım.
6. ____Önceden yaşadığım hoşuma giden olayları hayalimde tekrar canlandırmaya yatkınımdır.
7. ____Kendimi, gün içerisinde "Keşke yapsaydım" dediğim şeyleri hayal ederken bulurum.
8. ____Kötü geçtiğini düşündüğüm bir görüşme sonrasında, "keşke şöyle davransaydım" dediğim farklı senaryolar hayal ederim.
9. ____Karmaşık bir problemi çözmeye çalışırken çözüme ulaşmak yerine problemin başına döndüğümü fark ederim.
10. ____Yaklaşan önemli bir olay varsa, bu durumu o kadar çok düşünürüm ki sonunda sinirli ve mutsuz bir hale gelirim.
11. ____İstenmeyen düşünceleri zihnimden bir türlü atamam.
12. ____Bir problem hakkında saatlerce düşünsem de sorunu açıkça anlamak için biraz daha zamana ihtiyaç duyarım.
13. ____Hakkında ne kadar düşünürsem düşüneyim, bazı sorunlarla ilgili net bir çözüme ulaşmam benim için çok zordur.
14. ____Bazen bir şeyler hakkında saatlerce oturup düşündüğüm olur.
15. ____Bir meseleyi çözmeye çalışırken, zihnimde farklı noktalara dağılan uzun bir tartışma yaşar gibi olurum.
16. ____Oturup geçmişteki güzel olayları hatırlamak hoşuma gider.
17. ____Heyecan verici bir olayı beklerken, bu olay ile alakalı düşünceler, o anda yaptığım işi engeller.
18. ____Bazen, bir konuşma sırasında bile, alâkasız düşüncelerin zihnime hücum ettiği olur.
19. ____Yakın zamanda önemli bir görüşme yapacaksam, zihnimde sürekli olarak bunu tekrar etme eğilimim vardır.
20. ____Önemli bir olay yaklaşıyorsa bununla ilgili düşünmekten kendimi alamam.

APPENDIX 5. MINDFUL ATTENTION AWARENESS SCALE (MAAS)

Açıklama: Aşağıda sizin günlük deneyimlerinizle ilgili bir dizi durum verilmiştir. Lütfen her bir maddenin sağında yer alan 1 ile 6 arasındaki ölçeği kullanarak her bir deneyimi ne kadar sık veya nadiren yaşadığınızı belirtiniz. Lütfen deneyiminizin **ne olması gerektiğini değil, sizin deneyiminizi gerçekten neyin etkilediğini** göz önünde bulundurarak cevaplayınız. Lütfen her bir maddeyi diğerlerinden ayrı tutunuz.

1 **Hemen hemen hiçbir zaman**	**2** **Oldukça Seyrek**	**3** **Nadiren**	**4** **Bazen**	**5** **Çoğu zaman**	**6** **Hemen hemen her zaman**

1.	Belli bir süre farkında olmadan bazı duyguları yaşayabilirim.	1 2 3 4 5 6
2.	Eşyaları özensizlik, dikkat etmeme veya başka bir şeyleri düşündüğüm için kırarım veya dökerim.	1 2 3 4 5 6
3.	Şu anda olana odaklanmakta zorlanırım.	1 2 3 4 5 6
4.	Gideceğim yere, yolda olup bitenlere dikkat etmeksizin hızlıca yürüyerek gitmeyi tercih ederim.	1 2 3 4 5 6
5.	Fiziksel gerginlik ya da rahatsızlık içeren duyguları, gerçekten dikkatimi çekene kadar fark etmeme eğilimim vardır.	1 2 3 4 5 6
6.	Bir kişinin ismini, bana söylendikten hemen sonra unuturum.	1 2 3 4 5 6
7.	Yaptığım şeyin farkında olmaksızın otomatiğe bağlanmış gibi yapıyorum.	1 2 3 4 5 6
8.	Aktiviteleri gerçekte ne olduklarına dikkat etmeden acele ile yerine getiririm.	1 2 3 4 5 6
9.	Başarmak istediğim hedeflere öyle çok odaklanırım ki o hedeflere ulaşmak için şuan ne yapıyor olduğumun farkında olmam.	1 2 3 4 5 6
10.	İşleri veya görevleri ne yaptığımın farkında olmaksızın otomatik olarak yaparım.	1 2 3 4 5 6
11.	Kendimi bir kulağımla birini dinlerken; aynı zamanda başka bir şeyi de yaparken bulurum.	1 2 3 4 5 6
12.	Gideceğim yerlere farkında olmadan gidiyor, sonra da oraya neden gittiğime şaşırıyorum.	1 2 3 4 5 6
13.	Kendimi gelecek veya geçmişle meşgul bulurum.	1 2 3 4 5 6
14.	Kendimi yaptığım işlere dikkatimi vermemiş bulurum.	1 2 3 4 5 6
15.	Ne yediğimin farkında olmaksızın atıştırıyorum.	1 2 3 4 5 6

APPENDIX 6. THE TORONTO EMPATHY QUESTIONNAIRE (TEQ)

Lütfen aşağıdaki her soru için size en uygun olan seçeneği seçiniz.

		Hiç Uygun Değil	Uygun Değil	Biraz uygun	Uygun	Tamamen uygun
1.	Diğer insanların başına gelen talihsizlikler beni çok etkilemez.	1	2	3	4	5
2.	Birisine saygısızca davranıldığını görmek, beni üzer.	1	2	3	4	5
3.	Yakınımdaki bir insan mutlu olduğunda bundan etkilenmem.	1	2	3	4	5
4.	İnsanların daha iyi hissetmesini sağlamaktan mutluluk duyarım.	1	2	3	4	5
5.	Bir arkadaşım sorunları hakkında konuşmaya başladığında konuyu değiştirmeye çalışırım.	1	2	3	4	5
6.	İnsanlar üzgün olduklarında hiçbir şey söylemeseler bile onların üzgün olduklarını anlayabilirim.	1	2	3	4	5
7.	Sağlıklarına özen göstermeyip ciddi hastalıklara yakalanan insanlara acımam.	1	2	3	4	5
8.	Birisi ağladığında sinir olurum.	1	2	3	4	5
9.	Başka insanların nasıl hissettikleri beni gerçekten alakadar etmez.	1	2	3	4	5
10.	Üzgün bir insan gördüğümde ona yardım etmek için güçlü bir istek duyarım.	1	2	3	4	5
11.	Birisine haksızca davranıldığını gördüğümde, ona acımam.	1	2	3	4	5
12.	İnsanların mutluluktan dolayı ağlamasını saçma bulurum.	1	2	3	4	5
13.	Birisinin kullanıldığını gördüğümde, onu koruma isteği hissederim.	1	2	3	4	5

APPENDIX 8. ETHICS BOARD FORM

Tarih: 10.06.2019 17:23
Sayı: 35853172-300-E.00000621952

E.00000621952

T.C.
HACETTEPE ÜNİVERSİTESİ
Rektörlük

Sayı : 35853172-300
Konu : Navidreza HOSSEİNZADEH Hk. (Etik Komisyon)

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 24.05.2019 tarihli ve 12908312-300/00000607510 sayılı yazınız.

Enstitünüz Sosyal Hizmet Anabilim Dalı Doktora programı öğrencilerinden **Navidreza HOSSEİNZADEH ASL**'ın **Prof. Dr. Sunay İL** danışmanlığında yürüttüğü **"Sosyal Hizmet Öğrencileri Ve Uzmanları İçin Mındfulness Eğitimi: Bir Mındfulness Temelli Kısa Eğitim Programı Önerisi"** başlıklı tez çalışması Üniversitemiz Senatosu Etik Komisyonunun **28 Mayıs 2019** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini saygılarımla rica ederim.

e-imzalıdır
Prof. Dr. Rahime Meral NOHUTCU
Rektör Yardımcısı

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