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# The Effectiveness of Mindfulness Training on Social Media Addiction and Academic Procrastination in Students

Maryam. Zare[1], Raheleh. Zamani Mazdeh[2], Mehdi. Badali[3*]

[1] Department of Psychology, science and research Branch, Islamic Azad University, Qazvin, Iran
[2] Department of Psychology, Roudehen Branch, Islamic Azad University, Roudehen, Iran
[3] Department of Methods and Curriculum Planning, Faculty of Psychology and Educational Sciences, University of Tehran, Tehran, Iran

*** Corresponding author email address**: mehdi.badali@ut.ac.ir

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A B S T R A C T

**Objective:** Social media addiction and academic procrastination are common and prevalent problems among students, leading to numerous negative consequences. The aim of this study was to determine the effectiveness of mindfulness training on social media addiction and academic procrastination in students.

**Methods and Materials:** The research method was quasi-experimental with a pre-test, post-test, and control group design. From the student population of the Faculty of Psychology at Tehran University of Medical Sciences, 35 individuals were selected using convenience sampling and randomly assigned to experimental and control groups. Research tools included the Social Media Addiction Questionnaire (Ahmadi et al., 2016) and the Academic Procrastination Questionnaire (Solomon & Rothblum, 1984). The experimental group underwent mindfulness training intervention for 10 sessions of 90 minutes each. At the end, a post-test was administered to both groups, and the data were analyzed using covariance analysis.

**Findings:** The results of the covariance analysis showed that mindfulness training had an effect on social media addiction ($F = 21.456$) and academic procrastination ($F = 17.878$) in students ($p \leq 0.001$).

**Conclusion:** Based on the research findings, it is suggested that psychological interventions such as mindfulness be used to reduce social media usage and academic procrastination in students.

***Keywords:*** *Mindfulness, Social Media, Academic Procrastination, Internet Addiction.*

## 1. Introduction

The use of the internet as a primary source of information and one of the most cost-effective means of communication has become increasingly prevalent in various countries in recent years (Badali et al., 2022). Today, it can be asserted that the internet and the use of social networks have become one of the most crucial components of students' individual and social lives (Riyanti et al., 2023). Sometimes, the extent of internet and social media use turns

into overuse and addiction; social media addiction can be described as an extreme form of using virtual social networks (Nadarajan et al., 2023).

The university period may be a stressful and challenging time for students due to various factors occurring simultaneously. On the one hand, young individuals strive to gain university admission, and on the other hand, they face a high workload, academic pressure, economic stress, fear and concern about future career paths, adaptation to a new environment, and establishing relationships with new people, making this period particularly sensitive (Mehrabian et al., 2022). As a result, students turn to virtual social networks to escape the difficulties and challenges of this period, and due to a lack of self-control and self-regulation in using social networks, they eventually become addicted to social networks (Zhang et al., 2023).

Social media addiction is defined as an uncontrollable preoccupation or strong motivation to use social networks, leading to psychological distress (Weinstein & Lejoyeux, 2010). Moreover, social media addiction is considered a behavioral or non-drug addiction (Milková et al., 2022; Zou et al., 2017). The average daily usage of social networks has increased significantly, surpassing five hours a day (Park, 2012). Despite the attention drawn to social media addiction, the growth in the use of social networks has increased in parallel. However, there are variations in the global prevalence of this phenomenon. Alarmingly, social media addiction is associated with other addictions, such as substance abuse or gambling disorders (Ryding & Kaye, 2018). Social networking sites like Facebook, Twitter, and Instagram have experienced substantial growth recently. Specifically, Lozano Blasco et al. (2020) pointed to data on Facebook follower growth: "As of December 2018, there were approximately 1.52 billion daily active users on Facebook (Fb) and 2.32 billion monthly active users" (Lozano Blasco et al., 2020). On the other hand, due to the excessive time spent on these networks, users withdraw from interacting with family members and neglect their academic responsibilities, ultimately exacerbating pressures and difficulties, potentially leading to stress, anxiety, depression, and sleep disorders (Settanni et al., 2018).

Excessive use of social networks is associated with a decrease in social, family communications, and participation in social activities, which can lead to social isolation and anxiety (Parlak Sert & Başkale, 2023). Studies have shown a significant relationship between social media addiction and depression (Donnelly & Kuss, 2016; Rachubińska et al., 2021). According to Esmaili Rad (2019), there is a significant relationship between social media addiction and depression, anxiety, and life satisfaction (Esmaeeli Rad, 2019). Moreover, research has shown that students addicted to virtual social networks are more likely to procrastinate academically (Aznar-Díaz et al., 2020; Nadarajan et al., 2023).

Academic procrastination, which means delaying academic tasks and assignments, is a significant factor among students that significantly impacts their academic performance, and failing to prevent it can cause irreparable damage to students and higher education (Bekleyen, 2017). Academic procrastination is the most common type of procrastination among students, with an estimated acute prevalence of 23 to 31 percent among them (Balkis & Duru, 2009). This type of procrastination is identified in areas such as exam preparation, assignment completion, and attending sessions (Tingting et al., 2015). Research has shown that procrastination can have concerning consequences, including poor academic performance, increased stress (Sirois, 2004), reduced well-being, and even poor physical health (Pychyl & Sirois, 2016). In the context of the relationship between academic procrastination and internet addiction, some studies have pointed to academic procrastination as a significant predictor of virtual social network addiction (Öst, 2008; Tras & Gökçen, 2020) showed that about 33.47 percent of students exhibit high levels of academic procrastination and a strong relationship between social media addiction and academic procrastination.

Given that virtual social network addiction and academic procrastination are common issues among students and cause significant problems, especially in their academic performance (Milková et al., 2022), appropriate methods and interventions should be used to improve it. It has been shown that one of the facilitators for avoiding negative emotions associated with tasks and ultimately neglecting them is low mindfulness. In fact, low mindfulness leads to poor emotional self-regulation in procrastination (Cheung & Ng, 2019); therefore, an approach to promoting emotional self-regulation that holds promise for addressing procrastination is mindfulness (Rad et al., 2023). In this regard, educational and therapeutic approaches and methods based on mindfulness are suggested for educational environments and students (Leland, 2015).

Mindfulness-based interventions are considered one of the third-generation cognitive-behavioral therapies. Mindfulness has its roots in Buddhist meditation and practices (Roemer et al., 2015). Mindfulness is a form of

meditation and an accepting, non-judgmental awareness of current events (Öst, 2008). The use of mindfulness in psychotherapy interventions has grown significantly in the past 20 years and is applied to various client groups (Riquelme-Marín et al., 2022) and is also integrated as an approach. This approach includes techniques such as observation, cultivating non-judgmental awareness, accepting thoughts, feelings, or sensations, and creating non-engagement with them (Hawley et al., 2021). Most mindfulness practices involve intentional awareness of breathing in the present moment, with no judgment or reaction to thoughts or feelings during the practice. Mindfulness applies to all internal and external experiences, such as walking, eating, listening, feeling excitement, and experiencing physical pain, which can be accompanied by mindfulness (Gehart, 2012). Motie et al. (2019) also showed that the relationship between academic procrastination and mindfulness is significantly negative (Motie et al., 2019).

As stated, the major problems students face today include overuse of virtual social networks and academic procrastination (Kooren et al., 2024). A review of research indicates that mindfulness-based interventions impact a wide range of psychological variables, such as stress, anxiety, resilience, and academic procrastination, and these treatments seem to positively affect students' psychological issues (Leland, 2015). Therefore, since psychological interventions are needed to improve students' academic and psychological status, conducting experimental studies to treat patients using mindfulness appears necessary. Considering all the mentioned factors highlights the importance of addressing this issue more than ever; additionally, the research conducted in this field in the country is limited, and the research gap regarding the effectiveness of mindfulness training on virtual social network addiction and academic procrastination among students is evident, prompting the researcher to address this issue. Accordingly, this study aimed to determine the effectiveness of mindfulness training on virtual social network addiction and academic procrastination in students.

## 2. Methods and Materials

### *2.1. Study Design and Participants*

This research is of an applied nature in terms of its aim and quantitative in terms of data. A quasi-experimental method with a pre-test and post-test design with a control group was used. The statistical population included the students of the Faculty of Psychology at Tehran University of Medical Sciences. From this population, 38 individuals were selected using convenience sampling and were assigned to two groups of 19 each; then, they were randomly assigned to experimental and control groups. During the research, one person dropped out from the experimental group, reducing the number to 18, and two people were removed from the control group, bringing the total sample size to 35 individuals. Inclusion criteria were high scores on the Social Media Addiction Questionnaire and Academic Procrastination Questionnaire, willingness and consent to participate in the mindfulness course, no debilitating and chronic illnesses, and no prior psychotherapy or medication before entering the study. Exclusion criteria included absence from more than two sessions and the use of psychiatric medication. Initially, both groups (experimental and control) completed the pre-tests on social media addiction and academic procrastination. Then, the experimental group underwent mindfulness training for eight sessions online via Google Meet, while the control group received no training. Immediately after the mindfulness training for the experimental group, post-tests were administered to both groups.

To ensure ethical considerations, a consent form was prepared explaining the general purpose of the research. The form was read to the participating students by the researcher, and they participated in the study if they were willing. One of the assurances given to the students was that no personal misuse of the data would occur, and some students requested to know their questionnaire results, which were provided in simple language. The confidentiality of the questionnaires and their results was also explained to the students.

### *2.2. Measures*

#### *2.2.1. Social Media Addiction*

The Mobile-Based Social Media Addiction Questionnaire was designed and validated by Khajeh Ahmadi et al. (2016). This questionnaire includes 23 closed-ended items on a 5-point Likert scale ranging from very much = 5 to very little = 1. The questionnaire assesses four dimensions: individual performance, time management, self-control, and social relationships. It was validated by Khajeh Ahmadi et al. (2016). The content, face, and construct validity of the questionnaire were deemed appropriate (Khajeahmadi et al., 2017). Moreover, to evaluate the reliability of the questionnaire, Cronbach's alpha was used, and with a Cronbach's alpha of 0.834, the

questionnaire was found to have acceptable reliability in addition to validity.

### 2.2.2. *Academic Procrastination*

This questionnaire was developed by Solomon and Rothblum in 1984 and named the Academic Procrastination Scale. The scale consists of 27 items that assess three components: preparation for exams, preparation for assignments, and preparation for end-of-term papers. Respondents indicate their level of agreement with each item by selecting one of the following options: "never" = 1, "rarely" = 2, "sometimes" = 3, "often" = 4, "always" = 5 (Jokar & Delavar Pour, 2007). The reliability of the Academic Procrastination Scale was assessed through internal consistency, and Solomon and Rothblum (1984) reported a Cronbach's alpha of 0.64. They also obtained a construct validity coefficient of 0.84 for the scale. This questionnaire was translated into Persian by Jokar and Delavar Pour (2007), with validity and reliability coefficients of 0.61 and 0.88, respectively, and a Cronbach's alpha coefficient of 0.91 (Karimi et al., 2024). In the present study, the reliability of the questionnaire was assessed using Cronbach's alpha, yielding a score of 0.71 for academic procrastination.

## 2.3. *Intervention*

### 2.3.1. *Mindfulness Training*

The mindfulness training protocol is based on Kabat-Zinn's (2003) approach and is conducted over eight sessions. Each session focuses on different aspects of mindfulness practice, combining meditation techniques, discussions, and practical exercises. The participants engage in both in-session activities and homework assignments to extend mindfulness into their daily lives. The following paragraphs outline each session's process and activities (Ahmadi et al., 2021; Cheung & Ng, 2019; Gehart, 2012; Ghasemzadeh et al., 2020; Hawley et al., 2021; Karimi et al., 2024; Leland, 2015; Motie et al., 2019; Rad et al., 2023; Riquelme-Marín et al., 2022; Roemer et al., 2015).

Session 1: Introduction and Initial Practice

In the first session, participants are introduced to each other and given a brief overview of the eight sessions. They complete the initial research questionnaire. The session includes the raisin-eating technique to illustrate mindful eating, followed by a 30-minute body scan meditation. Participants discuss their feelings and experiences from the meditation. The homework assignment is to practice being present in the moment and apply the raisin-eating technique to other activities.

Session 2: Body Scan Meditation and Mindfulness Discussion

The second session involves performing the body scan meditation and discussing the experience. Participants talk about their homework, the obstacles they faced, and mindfulness strategies to overcome these barriers. The session also includes a discussion on the difference between thoughts and feelings. A sitting meditation is conducted, and homework assignments include practicing mindfulness during a pleasant event, sitting meditation, body scan, and applying mindfulness to a daily activity.

Session 3: Non-Judgmental Observation and Breathing

In the third session, participants practice non-judgmental observation by looking and listening for two minutes. This is followed by a sitting meditation focusing on breathing and bodily sensations. The session includes discussing the homework, specifically the three-minute breathing space exercise, which involves three stages: focusing on the present moment, breathing, and bodily awareness. A mindful movement exercise is conducted. Homework includes sitting meditation, body scan, three-minute breathing space practice, mindfulness of a new daily activity, and mindfulness of an unpleasant event.

Session 4: Four-Dimensional Sitting Meditation and Stress Response

Session four begins with a four-dimensional sitting meditation that focuses on breathing, sounds, bodily sensations, and thoughts. Participants discuss stress responses and alternative attitudes and behaviors in difficult situations. A mindful walking exercise is performed. Homework assignments include sitting meditation, body scan or mindful movement, and three-minute breathing space during an unpleasant event.

Session 5: Mindful Movement and Meditation

The fifth session involves sitting meditation and introduces mindful movement exercises. Participants practice these exercises in the session. Homework includes sitting meditation, three-minute breathing space during an unpleasant event, and mindfulness of a new daily activity.

Session 6: Mood and Thought Separation

The sixth session starts with the three-minute breathing space exercise. Participants discuss their homework in pairs. A new exercise titled "mood, thought, and separate perspectives" is introduced, emphasizing that the content of thoughts is often not real. Acceptance of feelings as they are

is also discussed. Homework includes a combination of preferred meditations, three-minute breathing space during an unpleasant event, and mindfulness of a new daily activity.

Session 7: Comprehensive Mindfulness and Self-Care

In the seventh session, participants engage in a four-dimensional meditation, becoming aware of whatever enters consciousness at the moment. The theme of the session is the best way to care for oneself. Participants identify pleasant and unpleasant events in their lives and learn how to plan sufficient pleasant events. Non-judgmental acceptance is taught. Homework includes a combination of preferred meditations, three-minute breathing space during an unpleasant event, and mindfulness of a new daily activity.

Session 8: Review and Future Practice

The final session includes a body scan meditation. The theme is utilizing what has been learned so far. Participants practice the three-minute breathing space exercise and discuss methods to cope with meditation obstacles. They reflect on whether their expectations were met, whether they feel their personalities have grown, whether their coping skills have improved, and whether they wish to continue their meditation practices. The session concludes with the administration of the post-test questionnaire.

### *2.4. Data analysis*

The data were analyzed using SPSS version 26 and covariance analysis.

## 3. Findings and Results

In this study, 35 students participated in both the control and experimental groups. The mean age of the control group was 21.45 years (SD = 4.67), and the mean age of the experimental group was 22.67 years (SD = 6.12). Table 2 presents the descriptive findings of the variables of social media addiction and academic procrastination, separated by research groups in the pre-test and post-test phases.

**Table 1**

*Descriptive Findings of Social Media Addiction and Academic Procrastination in Pre-test and Post-test Stages by Group*

| Variable | Control Group | Experimental Group |
|---|---|---|
| | Pre-test Mean (SD) | Post-test Mean (SD) |
| Social Media Addiction | 93.11 (13.12) | 93.47 (12.67) |
| Academic Procrastination | 97.52 (13.54) | 98.58 (14.87) |

As shown in Table 1, the post-test scores for social media addiction and academic procrastination in the experimental group significantly decreased compared to the pre-test, whereas this difference was not noticeable in the control group. The findings from the covariance analysis are presented next. Before performing the covariance analysis, the assumptions were checked using Levene's test and the Kolmogorov-Smirnov test, indicating that the use of covariance analysis was justified.

**Table 2**

*Results of Covariance Analysis for Post-test Scores of Social Media Addiction after Adjusting for Pre-test Scores*

| Source of Variation | Sum of Squares | df | Mean Square | F Value | Significance Level | Eta Squared |
|---|---|---|---|---|---|---|
| Pre-test | 621.278 | 1 | 621.278 | 9.720 | .001 | .233 |
| Group (Independent Variable) | 4340.558 | 1 | 4340.558 | 67.907 | .001 | .680 |
| Error | 2045.402 | 32 | 63.919 | | | |

Table 2 clearly shows the results of the covariance analysis. As evident in the table, the sum of squares for the independent variable is 4340.558, leading to an F value of 67.907, which is significant at the 1% level. In other words, there is a significant difference between the control and experimental groups in the level of social media addiction after adjusting for the pre-test effect. Therefore, it can be concluded that mindfulness training effectively reduces students' use of social media.


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**Table 3**

*Results of Covariance Analysis for Post-test Scores of Academic Procrastination after Adjusting for Pre-test Scores*

| Source of Variation | Sum of Squares | df | Mean Square | F Value | Significance Level | Eta Squared |
|---|---|---|---|---|---|---|
| Pre-test | 651.523 | 1 | 651.523 | 13.105 | .001 | .291 |
| Group (Independent Variable) | 3708.800 | 1 | 3708.800 | 74.602 | .001 | .700 |
| Error | 1590.873 | 32 | 49.715 | | | |

Table 3 clearly shows the results of the covariance analysis. As evident in the table, the sum of squares for the independent variable is 3708.800, leading to an F value of 74.602, which is significant at the 1% level. In other words, there is a significant difference between the control and experimental groups in the level of academic procrastination after adjusting for the pre-test effect. Therefore, it can be concluded that mindfulness training effectively reduces academic procrastination in students.

## 4. Discussion and Conclusion

The aim of this study was to determine the effectiveness of mindfulness training on social media addiction and academic procrastination in students. The first finding indicated that mindfulness training reduces students' social media addiction. These results align with prior studies (Abedini et al., 2021; Adair et al., 2018; Chen et al., 2022; Mahvash et al., 2024; Sedighi Arfaee et al., 2021).

Mindfulness immerses individuals in activities, separating them from the turmoil of past and future events. This characteristic promotes dynamic time usage contrary to addictive behaviors, such as social media addiction. Therefore, students who enhance their ability to control their mind, negative thoughts, and impulsive behaviors are likely to spend more time on other activities such as studying, socializing, and sports, which reduces excessive social media use (Ahmadi et al., 2021).

Additionally, this method encourages individuals to focus on the immediate experience by increasing awareness of the present moment rather than getting caught up in negative thought patterns about the past or future. This focus on the present disrupts the rumination process (Riquelme-Marín et al., 2022) and encourages students to use social media less. It has also been shown that mindfulness training reduces emotional reactivity, making individuals less affected by negative emotions and thereby reducing excessive social media use. The non-judgmental and accepting stance of mindfulness helps individuals observe their thoughts and feelings without getting entangled in them. Mindfulness practice improves cognitive flexibility or the ability to change perspectives. This flexibility makes it easier for individuals to break free from negative thought patterns and consider alternative viewpoints. Mindfulness, through techniques such as relaxation training and non-judgmental acceptance of the current state, raises awareness of the present moment and consequently reduces excessive social media use.

The next finding indicated that mindfulness training reduces academic procrastination in students. These results align with those of other studies (Cheung & Ng, 2019; Karimi et al., 2024; Motie et al., 2019; Rad et al., 2023).

Procrastinating students often fear failure, suffer from low self-esteem and self-efficacy, and are pessimistic about the future. Their minds are filled with negative thoughts that prevent constructive activities, resulting in a lack of motivation to complete tasks. Mindfulness training can improve emotion and study management by observing thoughts, feelings, and emotions non-judgmentally, increasing awareness of academic issues, reducing academic stress, and improving the successful completion and follow-up of academic tasks (Cheung & Ng, 2019). Consequently, mindfulness training reduces academic procrastination.

Moreover, mindfulness training reduces anxiety. In this therapeutic approach, individuals replace logical thinking patterns, such as perceiving the environment as threatening, with rational and positive thoughts, leading to reduced anxiety. In other words, mindfulness training reduces anxiety symptoms by identifying anxious thoughts, challenging and confronting them, and replacing them with non-anxious and non-threatening thoughts. Additionally, this educational method improves attention and concentration during study through cognitive restructuring and relaxation (Karimi et al., 2024). Thus, the above factors reduce academic procrastination by reducing anxiety and increasing attention and concentration.

## 5. Limitations & Suggestions



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The main limitation of this study was the small sample size and non-random sampling method. Despite researchers' efforts to match participants regarding age and education level, the influence of intervening factors such as subcultures and the socio-economic conditions of the subjects should be considered. Due to logistical issues, it was not possible to conduct a follow-up test to assess the durability of the results. Given the limitations in sampling methods, it is suggested that similar research be conducted in other populations with a larger sample size and using random sampling methods for better generalizability of the results. Further research should examine the durability of treatment outcomes and compare different therapeutic methods over long-term and short-term periods. Additionally, mindfulness training workshops should be provided for students to familiarize them with mindfulness styles and their effects on the mind and body, thereby reducing social media use and academic procrastination and improving academic performance.

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**Declaration of Interest**

The authors of this article declared no conflict of interest.

**Ethical Considerations**

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

**Transparency of Data**

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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**Authors' Contributions**

All authors equally contributed to this article.

**References**

Abedini, M., Akbari, B., Sadeghi, A., & Asadimajreh, S. (2021). The relationship between resilience and mindfulness with emotional well-being with the mediating role of emotion regulation in cancer. *Health Psychology*, *10*(39), 67-84. https://doi.org/10.30473/hpj.2021.58344.5172

Adair, K. C., Fredrickson, B. L., Castro-Schilo, L., Kim, S., & Sidberry, S. (2018). Present with You: Does Cultivated Mindfulness Predict Greater Social Connection Through Gains in Decentering and Reductions in Negative Emotions? *Mindfulness*, *9*(3), 737-749. https://doi.org/10.1007/s12671-017-0811-1

Ahmadi, M., Nikomanesh, Z., & Farnam, A. (2021). Effectiveness of Stress-Based Mindfulness Therapy on the Students' Feelings of Loneliness and Internet Addiction. *umsha-psj*, *19*(4), 1-9. https://doi.org/10.61186/psj.19.4.1

Aznar-Díaz, I., Romero-Rodríguez, J.-M., García-González, A., & Ramírez-Montoya, M.-S. (2020). Mexican and Spanish university students' Internet addiction and academic procrastination: Correlation and potential factors. *PLoS One*, *15*(5), e0233655. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0233655

Badali, M., Hatami, J., Banihashem, S. K., Rahimi, E., Noroozi, O., & Eslami, Z. (2022). The role of motivation in MOOCs' retention rates: a systematic literature review. *Research and Practice in Technology Enhanced Learning*, *17*(1), 5. https://doi.org/10.1186/s41039-022-00181-3

Balkis, M., & Duru, E. (2009). Prevalence of academic procrastination behavior among pre-service teachers, and its relationship with demographics and individual preferences. *Journal of Theory & Practice in Education (JTPE)/Eğitimde Kuram ve Uygulama*, *5*(1). https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=d9433fab4dffdd391ff6f9ea7f64200d1303f759

Bekleyen, N. (2017). Understanding the academic procrastination attitude of language learners in turkish universities. *Educational Research and Reviews*, *12*(3), 108-115. https://eric.ed.gov/?id=EJ1130310

Chen, H., Liu, C., Zhou, F., Chiang, C.-H., Chen, Y.-L., Wu, K., Huang, D.-H., Liu, C.-Y., & Chiou, W.-K. (2022). The Effect of Animation-Guided Mindfulness Meditation on the Promotion of Creativity, Flow and Affect [Original Research]. *Frontiers in psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.894337

Cheung, R. Y., & Ng, M. C. (2019). Being in the moment later? Testing the inverse relation between mindfulness and procrastination. *Personality and individual differences*, *141*, 123-126. https://www.sciencedirect.com/science/article/pii/S0191886918306500

Donnelly, E., & Kuss, D. (2016). Depression among users of social networking sites (SNSs): The role of SNS addiction and increased usage. *Journal of Addiction and Preventive Medicine*, *1*(2), 107. https://irep.ntu.ac.uk/id/eprint/29245/

Esmaeeli Rad, M. (2019). Relationship between the Online Social Networks Addiction and Psychological Disorders. *ethicsjournal*, *14*(2), 31-38. http://ethicsjournal.ir/article-1-1444-en.html

Gehart, D. R. (2012). *Mindfulness and acceptance in couple and family therapy*. Springer Science & Business Media. https://books.google.com/books?hl=en&lr=&id=Sk3BdI0NHbIC&oi=fnd&pg=PR5&dq=Mindfulness+and+Acceptance+in+Couple+and+Family+Therapy&ots=BUtCKcJvtb&sig=ruSGwzynldNun1HIoc9W2GquPQw

Ghasemzadeh, A., Ghamari, M., & Hosseinian, S. (2020). The Effectiveness of Mindfulness Training on Students' Anxiety and Psychological Well-being. http://edcbmj.ir/browse.php?a_id=2134&sid=1&slc_lang=en&ftxt=1

Hawley, L. L., Rector, N. A., DaSilva, A., Laposa, J. M., & Richter, M. A. (2021). Technology supported mindfulness for obsessive compulsive disorder: Self-reported mindfulness and EEG correlates of mind wandering. *Behaviour Research and Therapy*, *136*, 103757. https://www.sciencedirect.com/science/article/pii/S0005796720302114

Karimi, P., Baseri, A., & Razini, H. H. (2024). The effectiveness of mindfulness-based cognitive therapy on procrastination and self-handicapping of students with academic failure. *Rooyesh-e-Ravanshenasi Journal (RRJ)*, *13*(1), 171-180. https://frooyesh.ir/browse.php?a_id=3781&sid=1&slc_lang=en&ftxt=1

Khajeahmadi, M., Pooladi, S., & Bahreini, M. (2017). Design and Assessment of Psychometric Properties of the Addiction to Mobile Questionnaire Based on Social Networks. *ijpn*, *4*(4), 43-51. http://ijpn.ir/article-1-884-en.html

Kooren, N. S., Van Nooijen, C., & Paas, F. (2024). The Influence of Active and Passive Procrastination on Academic Performance: A Meta-Analysis. *Education Sciences*, *14*(3), 323. https://www.mdpi.com/2227-7102/14/3/323

Leland, M. (2015). Mindfulness and student success. *Journal of Adult Education*, *44*(1), 19-24. https://eric.ed.gov/?id=EJ1072925

Lozano Blasco, R., Latorre Cosculluela, C., & Quílez Robres, A. (2020). Social Network Addiction and Its Impact on Anxiety Level among University Students. *Sustainability*, *12*(13).

Mahvash, M., Yamini, M., & Mahdian, H. (2024). Comparing the Effectiveness of Instructional Mental Imagery and Tolerance of Ambiguity Training on Students' Academic Procrastination [Research Article]. *Iranian Journal of Educational Sociology*, *7*(1), 10-20. https://doi.org/10.61838/kman.ijes.7.1.2

Mehrabian, F., Kashi, S., & Ganje Markieh, Z. (2022). Investigating the Mental Health Status and Its Related Factors among the Students of Guilan University of Medical Sciences. *gums-rme*, *14*(1), 73-78. https://doi.org/10.52547/rme.14.1.73

Milková, E., Kaliba, M., & Ambrozova, P. (2022). Internet addiction in university students–Czech study. *Journal on Efficiency and Responsibility in Education and Science*, *15*(2), 94-102. https://www.eriesjournal.com/index.php/eries/article/view/577

Motie, H., Heidari, M., Bagherian, F., & Zarani, F. (2019). Cognitive-Emotional Model of Students Academic Procrastination: Mindfulness and Time Perception. *mui-jbs*, *16*(3), 353-364. https://doi.org/10.52547/rbs.16.3.353

Nadarajan, S., Hengudomsub, P., & Wacharasin, C. (2023). The role of academic procrastination on Internet addiction among Thai university students: A cross-sectional study. *Belitung Nursing Journal*, *9*(4), 384. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10461160/

Öst, L.-G. (2008). Efficacy of the third wave of behavioral therapies: A systematic review and meta-analysis. *Behaviour Research and Therapy*, *46*(3), 296-321. https://www.sciencedirect.com/science/article/pii/S000579670700246X

Park, T. (2012). Dark side of social media; The new drug for new generation, are they addicted? 1st Mae Fah Luang University International Conference,

Parlak Sert, H., & Başkale, H. (2023). Students' increased time spent on social media, and their level of coronavirus anxiety during the pandemic, predict increased social media addiction. *Health Information & Libraries Journal*, *40*(3), 262-274. https://doi.org/10.1111/hir.12448

Pychyl, T. A., & Sirois, F. M. (2016). Chapter 8 - Procrastination, Emotion Regulation, and Well-Being. In F. M. Sirois & T. A. Pychyl (Eds.), *Procrastination, Health, and Well-Being* (pp. 163-188). Academic Press. https://doi.org/10.1016/B978-0-12-802862-9.00008-6

Rachubińska, K., Cybulska, A., & Grochans, E. (2021). The relationship between loneliness, depression, internet and social media addiction among young Polish women. *Eur Rev Med Pharmacol Sci*, *25*(4), 1982-1989. https://ppm.edu.pl/docstore/download/PUM03eb2289952d47e8a66957cf13ab18aa/Eur+Rev+Med+Pharmacol+Sci+2021%2C+1982%2C+CC-BY-NC-ND.pdf

Rad, H. S., Samadi, S., Sirois, F. M., & Goodarzi, H. (2023). Mindfulness intervention for academic procrastination: A randomized control trial. *Learning and Individual Differences*, *101*, 102244. https://doi.org/10.1016/j.lindif.2022.102244

Riquelme-Marín, A., Rosa-Alcázar, A. I., & Ortigosa-Quiles, J. M. (2022). Mindfulness-based psychotherapy in patients with obsessive-compulsive disorder: A meta-analytical Study. *International Journal of Clinical and Health Psychology*, *22*(3), 100321. https://doi.org/10.1016/j.ijchp.2022.100321

Riyanti, A., Sagena, U., Lestari, N. C., Pramono, S. A., & Al Haddar, G. (2023). Internet-based learning in improving student digital literacy. *Cendikia: Media Jurnal Ilmiah Pendidikan*, *13*(4), 585-594. http://iocscience.org/ejournal/index.php/Cendikia/article/view/3598

Roemer, L., Williston, S. K., & Rollins, L. G. (2015). Mindfulness and emotion regulation. *Current opinion in psychology*, *3*, 52-57. https://doi.org/10.1016/j.copsyc.2015.02.006

Ryding, F. C., & Kaye, L. K. (2018). "Internet Addiction": a Conceptual Minefield. *International journal of mental health and addiction*, *16*(1), 225-232. https://doi.org/10.1007/s11469-017-9811-6

Sedighi Arfaee, F., Rashidi, A., & Tabesh, R. (2021). The Distress Tolerance in the Elderly: The Role of Experiential Avoidance, Rumination and Mindfulness. *Aging Psychology*, *7*(1), 12-11. https://doi.org/10.22126/jap.2021.6108.1498

Settanni, M., Marengo, D., Fabris, M. A., & Longobardi, C. (2018). The interplay between ADHD symptoms and time perspective in addictive social media use: A study on adolescent Facebook users. *Children and Youth Services Review*, *89*, 165-170. https://doi.org/10.1016/j.childyouth.2018.04.031

Sirois, F. M. (2004). Procrastination and intentions to perform health behaviors: The role of self-efficacy and the consideration of future consequences. *Personality and individual differences*, *37*(1), 115-128. https://doi.org/10.1016/j.paid.2003.08.005

Tingting, D., Xiulan, Y., & Xue, G. (2015). Different procrastination types of college students: From a self-regulated learning perspective. *Education Research Monthly*, *10*, 014. http://socialworkmag.ir/files/site1/user_files_3c3f33/garavand-A-10-222-1-14724ef.pdf

Tras, Z., & Gökçen, G. (2020). Academic Procrastination and Social Anxiety as Predictive Variables Internet Addiction of Adolescents. *International Education Studies*, *13*(9), 23-35. https://eric.ed.gov/?id=EJ1266475

Weinstein, A., & Lejoyeux, M. (2010). Internet Addiction or Excessive Internet Use. *The American Journal of Drug and Alcohol Abuse*, *36*(5), 277-283. https://doi.org/10.3109/00952990.2010.491880

Zhang, Y., Li, G., Liu, C., Chen, H., Guo, J., & Shi, Z. (2023). Mixed comparison of interventions for different exercise types on students with Internet addiction: a network meta-analysis [Systematic Review]. *Frontiers in psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1111195

Zou, Z., Wang, H., d'Oleire Uquillas, F., Wang, X., Ding, J., & Chen, H. (2017). Definition of Substance and Non-substance Addiction. In X. Zhang, J. Shi, & R. Tao (Eds.), *Substance and Non-substance Addiction* (pp. 21-41). Springer Singapore. https://doi.org/10.1007/978-981-10-5562-1_2



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