ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL
Available Online: https://assajournal.com
Vol. 04 No. 02. October-December 2025.Page# 2159-2170
Print ISSN: 3006-2497 Online ISSN: 3006-2500
Platform & Workflow by: Open Journal Systems
https://doi.org/10.5281/zenodo.17786855

Smartphone Addiction, Loneliness, And Mindfulness Among Young Adults

Jawariya Amir
Student BS Psychology, Govt. Islamia Graduate College for Women, Cooper Road, Lahore
Anam Naeem*
Lecturer of Psychology, Govt. Islamia Graduate College for Women, Cooper Road, Lahore
Corresponding Author Email: Naeem.anamm@gmail.com
Mehlaqa Riaz
Assistant Professor Govt. Islamia Graduate College for Women, Cooper Road, Lahore

Abstract

*The study aimed at exploring the relationship between smartphone addiction, loneliness, and mindfulness among young adults. A sample of 200 young adults (Age range 19-34 years) was recruited from different college and universities of Lahore in 2024 through convenient sampling. Smartphone Addiction Scale (SAS-SV; Kwon, Kim, Cho & Yang, 2013; α = 0.83), UCLA loneliness Scale (Russell, Peplau & Ferguson, 1978; α = 0.92), Mindfulness Scale (Brown & Ryan, 2003; α = 0.87) were used to measure smartphone addiction, loneliness, and mindfulness respectively. The data was gathered, refined and analyzed with descriptive analysis, correlation t-test and regression analyses. The Results revealed smartphone addiction was significantly negatively correlated with mindfulness (r= -.301**, p<.01) and significantly positively correlated with loneliness (r=0.314**, p<.01). mindfulness and loneliness were also significantly negatively correlated (r= -.505**, p<.01). No gender differences were observed on all study variables. A simple linear regression analysis revealed that higher smartphone addiction significantly predicted greater loneliness, [β = 0.16, t(198) = 2.79, p < .01], and lower mindfulness, [β = –0.12, t(198) = –2.46, p = .01]. The study carries important implications for educational institutions, clinicians, and policymakers, highlighting the need to address problematic smartphone use among young adults to help prevent its psychological and social consequences.*

Keywords: *Smartphone Addiction, Loneliness, Mindfulness, Psychological and Social consequences, uncontrolled digitalization*

Introduction

This study examines the relationship between smartphone addiction, loneliness, and mindfulness among young adults. A growing prevalence of smartphone addiction among young adults specially among

students in Pakistan has been recorded in post-COVID era. These studies suggest that cultural, educational, and infrastructural factors significantly shape smartphone use and its problematic forms: A cross-sectional study across six universities in Khyber Pakhtunkhwa involving 369 undergraduate students aged 17–24 years found that 60.4% of participants met the criteria for smartphone addiction, with higher rates among males (65.1%) than females (50.0%). Notably, 82.1% of students reported carrying their phones at all times. Smartphone overuse was linked with several adverse outcomes, including impaired concentration, disrupted academic task completion, and physical discomfort such as wrist and neck pain. These findings reflect the deeply embedded role of smartphones in students' academic, social, and personal routines, with problematic use stemming not only from entertainment but also academic reliance (Ahmad et al., 2024). Smartphone use patterns and addiction in 621 students from South Punjab, aged 18–22 revealed that 51.4% of students scored high on the smartphone addiction and 53% reported high use across four behavioral domains: interpersonal communication, entertainment, transactional activities, and information seeking. Among them, 84.2% kept their phones with them at all times, and nearly half used their phones for more than four hours daily. The study identified cultural and regional influences on smartphone use, including the rise of e-commerce, preference for digital interaction among youth, and the normalization of excessive phone use in academic and social contexts (Bajwa et al., 2022). These finding revealed that smartphone addiction in Pakistan is not only prevalent but also shaped by local socio-cultural norms, digital infrastructure, and educational practices. The emotional and functional dependence on smartphones observed in these populations calls for locally relevant interventions. Both studies emphasize the need for targeted awareness programs within universities and the involvement of educators and mental health professionals to promote balanced technology use that supports rather than hinders students' academic success and well-being.

The similar pattern of smartphone addiction was reported globally: the prevalence of problematic smartphone usage among youth as high as 10% in countries such as the United Kingdom (Lopez-Fernandez, Honrubia-Serrano, Freixa-Blanxart, & Gibson, 2014), 16.7% in Taiwan (Yen et al., 2009), 16.9% in Switzerland (Haug et al., 2015), 30.9% in Korea (Cha & Seo, 2018), and 31% in India (Nikhita, Jadhav, & Ajinkya, 2015). In the United Kingdom around 90% of youth have a smartphone, and about 50% of them would reach their phone within five minutes of waking up (Ofcom, 2016). In Korea, 80.4% of primary school students began to use smartphone at or below 10 years old, and 59.9% of them use their smartphone for 1 hour or longer per day (Lee & Kim, 2018). Girls showed a higher inclined to have problems with smartphone use (Choi et al., 2015; Kwon & Paek, 2016; Lee, Kim, & Choi, 2017). Approximately 69% of girls and 63% of boys reported scared of being away from or not being able to use their smartphones (Louragli, Ahami, Mammad, & Lamrani, 2018). Most of the adults spent time on Facebook, followed by WhatsApp, Twitter, Instagram, and other social media platforms (Louragli et al., 2018). Boys spent time on smartphones playing games, watching videos and listening music while girls are more focused on communication applications for texting and chatting (Lee & Kim, 2018).

In many studies, Mindfulness-based therapies have achieved satisfactory effects on some behavioral addictions, including pathological gambling. workaholism, sex addiction, and smartphone addiction (Lisle et al., 2012; Shonin et al... 2013, 2014b; Van Gordon et al., 2016, 2017).

A study was conducted on Korean college students on smartphone users with high and low addiction trends which showed the result of more females were having high level of smartphone addiction. Females also showed have high preference of smartphone activities. Female students who showed higher level of smartphone addiction tend to have higher loneliness score. They also explored gender differences in Social Networking on Smartphones. The results revealed that females regularly use smartphone's camera than males, whereas males are more probable to use phone calling and smartphone applications compare to female (Park & Lee, 2014).

A study was conducted to examine the relationship between smartphone addiction and loneliness in a group of high school students in İzmir. The data was collected from 465 students. The average age of the participant students was 16.15 ± 1.04, with males constituting 42.8% and females constituting 57.2% of the study sample. The students' average scores on the SAS-SF and UCLA were 28.14 ± 11.54 and 53.72 ± 5.42, respectively. A significant positive relation was found between SAS-SF and UCLA (r: .202, p: 0.00). The study found that students who feel a sense of loneliness tend to use smartphones a lot and are at risk of smartphone addiction. It is recommended that addiction community mental health nurses take preventive measures against smartphone addiction to protect and improve the mental health of the students (Dikec, 2017).

In this descriptive-analytical study by Alireza Khatony (2019), 439 students entered the study by stratified random sampling. The study tool was the mobile phone addiction and SELSA's sense of loneliness questionnaires. The average score of mobile phone addiction in boys and girls was 73.77 ± 11.48 and 74.64 ± 12.28 from 100, respectively. There was no significant difference between them. According to the rating of mobile phone addiction, 17.8% of the students were in the range of moderate dependency and 10.9% of them were in the range of extreme dependency. Also, 71.3% of the students were identified as mobile phone addicts. The average score of sense of loneliness in boys and girls was 43.22 ± 5.16 and 42.82 ± 5.30, out of 105, respectively. There was no significant difference between them. There was a significant and negative correlation between the scores of mobile phone addiction and social isolation.

A study was conducted to analyze the association between smartphone addiction with social isolation among college going on a sample of 120 college students in the age group of 20-25years (78 male and 42 female). Statistical analysis revealed a significantly highly positive relationship between total score of social isolation and smartphone addiction. Gender wise significant difference was also signified as female were found to be high on loneliness scores in comparison to their male counterpart the significant difference was also signified as female were found to be high on loneliness scores in comparison to their male counterparts (Singh, 2021).

A study was conducted to detect compulsive use of smartphone addiction and to access social isolation among addicted users. An opportunistic sample of 1431 young Kuwaitis aged 17–26 years old was selected. A questionnaire was the major tool used. Data show that the low level of social isolation has a higher mean of smartphone addiction (Al- Kandari, 2022).

Another study carried out by Sinan Aslan (2022), with the aim of evaluating the relationship between smartphone addiction and social and emotional loneliness in high school students. It was planned to be

descriptive and cross-sectional. 'Student Identification Form', 'Smartphone Addiction Scale – Short Form' and Social and Emotional Loneliness Scale were used to collect data in the study. A positive correlation was found between smartphone usage and social and emotional loneliness ($r = 0.216$, $p = 0.001$). Daily internet usage, smartphone usage time, and social media engagement predicted smartphone addiction by 36% ($R2 = 0.36$, $p < 0.001$). A significant relationship was found between smartphone addiction and loneliness in high school students.

A sample of 308 undergraduate students from University of Technology Malaysia (UTM) were involved in this study. The instruments used were Smartphone Addiction Scale Short Version (SAS-SV) and UCLA Loneliness Scale (Version 3). The results indicate that 60.7% of participants reported having a moderate smartphone addiction, and 42.24% had a moderately high level of loneliness. Pearson's Correlation results show a significantly weak positive relationship between smartphone addiction and loneliness among undergraduate students (Jonaidah, 2023)

Smartphone Addiction and Mindfulness

This study examined the predictive relationships between loneliness, Internet addiction, and mindfulness. The study group consisted of 507 university students studying at Gaziantep University. Of the participants, 352 (69.4%) were female and 155 (30.6%) were male. Loneliness Scale, Internet Addiction Scale, and Mindfulness Scale were used for data collection. Firstly, the normal distribution of data is examined. Then correlation analysis on loneliness was conducted in order to determine the relationship between Internet addiction and mindfulness. The structural equation was used to measure loneliness in order to determine the predictive relationship between Internet addiction and mindfulness. The results of the study showed that loneliness was negatively correlated with mindfulness, and there was a positive correlation that Internet addiction and mindfulness have a negative relationship with Internet addiction. According to the structural equation model, it was observed that loneliness predicted Internet addiction in a positive way and mindfulness in a negative way. Mindfulness predicts Internet addiction in a negative way. The loneliness has also been found to have an indirect effect on Internet addiction via the mindfulness variable (Murat 2019).

Ibrahim Arpaci (2019) investigated the moderating role of mindfulness in the relationship between EMSs and smartphone addiction. The study employed a SEM-based multi-group analysis using data collected from 660 mobile users in Turkey. Results indicated that none of the EMSs were significantly associated with smartphone addiction for average users. On the other hand, certain EMSs were significantly associated with smartphone addiction for intermittent and addicted users. The schemas of social isolation/mistrust, approval seeking, and abandonment were positively associated with smartphone addiction for intermittent users, whereas approval seeking and entitlement/insufficient self-control were positively associated with smartphone addiction for addicted users. The findings implied that those who have higher score on the EMSs were more likely to become addicted to smartphones. The results further indicated that mindfulness significantly moderated these relationships, suggesting that as mindfulness increases, the number of schemas related to smartphone addiction decreases.

Elemo (2023) conducted a cross-sectional survey with snowball sampling was adopted, and a total of 294 international students volunteered to complete self-report measures. In this study, while there was no such significant association was determined for mindfulness in its relationship with smartphone addiction. The moderation analysis revealed that mindfulness significantly moderated the relationship between smartphone addictions; however, high mindfulness did not serve as a protective factor against the effects of smartphone addiction.

Loneliness & Mindfulness

Meditation is defined as a mind and body practice focused on interactions between the brain, mind, body, and behaviour, containing four key elements: a quiet location with little distractions, a comfortable posture, a focus of attention, and an open attitude. We sought to review the benefits of meditation on the alleviation of loneliness. A scoping review was conducted based on Arksey and O'Malley's five-stage framework. Eligibility criteria included primary studies of any type that investigated the effects of meditation on loneliness. The National Center for Complementary and Integrative Health, and American Psychological Association websites were also searched. Articles meeting the inclusion criteria were critically reviewed using a descriptive-analytical narrative method. Results: Thirteen studies met our inclusion criteria and were published between 2012 and 2020 across 10 countries. Eleven studies reported improvements in relation to loneliness. Of the remaining two studies (15%), one mentioned the alleviation of loneliness, but only looked primarily at social closeness in lonely individuals.

The other study found a correlation between loneliness and nuclear factor (NF)-κB levels, which was the measured outcome; however, the direct effects of meditation on loneliness were unclear. Three main themes emerged from our analysis, as follows: 1) positive results across all studies, 2) relatively small randomized control trials conducted over the last decade, and 3) lack of diverse demographic information. While a small number of studies exist at this intersection, given all included studies indicated positive findings, the effects of meditation in alleviating loneliness are promising. Future research should be directed at understanding how meditation mitigates loneliness and how this intervention can impact practice for healthcare professionals.

Taken together, the reviewed literature demonstrates a clear and consistent pattern: smartphone addiction is closely intertwined with emotional vulnerabilities such as loneliness, social isolation, and maladaptive cognitive patterns, while mindfulness emerges as a potential, but not uniformly effective, protective factor across diverse populations. Across high school, university, and young adult samples, loneliness repeatedly appears as both a precursor and correlate of problematic smartphone use, suggesting a reinforcing cycle in which emotional disconnection fuels compulsive digital engagement, which in turn further weakens social connectedness. At the same time, studies on mindfulness indicate that attentional awareness and emotion regulation skills may interrupt this cycle, either by reducing reliance on smartphones as a coping mechanism or by buffering the impact of loneliness on addictive behaviors. However, the mixed findings across cultural contexts highlight the need for more nuanced, context-specific research. Given the growing incidence of smartphone addiction among students and the psychological risks associated with loneliness and reduced

mindfulness, examining these variables together becomes essential for understanding their interplay and guiding effective intervention development. This gap in integrative, culturally grounded research provides the foundation for the present study's rationale.

Objectives

1. To investigate the association between smart phone addiction, loneliness and mindfulness.
2. To investigate the relationship between smart phone addiction, loneliness and mindfulness.
3. To find out the gender differences in smart phone addiction, loneliness and mindfulness.

Hypotheses

H1: There will be a significant relationship between smart phone addiction, loneliness, and mindfulness.
H2: There will be a significant gender differences between smart phone addiction, loneliness, and mindfulness.
H3: Smart phone addiction is likely to predict higher loneliness and low level of mindfulness.

Method

Research Design

A correlational research strategy was employed to investigate the relationship between Forgiveness, loneliness, and mindfulness

Sampling Strategy

This study utilizes a quantitative research design, specifically employing a convenient sample strategy and survey method. This design is appropriate for identifying correlations and assessing the prevalence of these variables within the target population.

Participants

The target population for this study includes men and women aged between 19 and 34 years old. A sample size of 200 participants was taken to ensure adequate power for statistical analysis.

Table 1

Frequency distribution of the sample in term of demographic variables (N=200)

Variable		Frequency	Percentage
Age	19-22	133	66.5
	23-26	58	29.0
	27-30	5	2.5
	31-34	4	2.0
Gender	Male	100	50
	Female	100	50
Education	Intermediate	135	67.5
	Graduate	52	26.0
	M.Phil.	11	5.5

	PHD	2	1.0
Socio-economic Status	Lower middle	2	1
class		189	94.5
	Middle class	9	4.5
	Upper class		
Occupation	Nothing	7	3.5
	Students	162	81
	Entrepreneur	2	1
	Forex Trader	2	1
	Network	4	2
Assistance		3	1.5
	Freelancer	16	8
	Teacher	1	0.5
	Advocate	2	1
	Job	1	0.5
	Medicine		
Hours spend on smartphone	1-2	6	3
	3-4	38	19
	5-6	72	36
	7-8	47	23.5
	9-10	37	18.5
Number of smartphone	1-2	186	93
	3-4	13	6.5
	5	1	0.5

Procedure

A formal permission was taken from the Board of Studies of University, college, and authors were taken prior to conducted the correlational research. Smartphone Addiction Scale (SAS-SV; Kwon, Kim, Cho & Yang, 2013; α = 0.83), UCLA loneliness Scale (Russell, Peplau & Ferguson, 1978; α = 0.92), Mindfulness Scale (Brown & Ryan, 2003; α = 0.87) were used to measure smartphone addiction, loneliness, and mindfulness. Smartphone Addiction Scale (SAS-SV; Kwon, Kim, Cho & Yang, 2013; α = 0.83), UCLA loneliness Scale (Russell, Peplau & Ferguson, 1978; α = 0.92), Mindfulness Scale (Brown & Ryan, 2003; α = 0.87) were used to measure smartphone addiction, loneliness, and mindfulness. A demographic sheet was prepared to gather information from participants, aligning with the inclusion and exclusion criteria. Written informed consent was obtained from all participants, after which they were briefed on the study's aims and objectives, as well as the confidentiality of their information. The data was gathered, refined and analyzed with descriptive analysis, correlation t-test and regression analyses on SPSS 27th Version.

Results

The following results were evaluated from the data collected: The reliability analysis for each assessment measure including smartphone addiction, social isolation and mindfulness was carried out by using Cronbach Alpha. The analysis is presents in table 2

Table 2

Reliability analysis of Smartphone Addiction Scale (SAS) Loneliness (UCLA) The Mindfulness Attention Awareness Scale (MAAS)(N=200)

Measures	k	A	M(SD)	Ranges
SAS	10	.83	34.45(10.23)	1-60
SIS	15	.92	25.5(13.67)	0-80
MAAS	20	.87	56.07(15.26)	1-90

Note: α= Reliability Coefficient, M= Mean, SD= Standard Deviation, k= number of items, SAS= Smartphone Addiction Scale, SIS = Social Isolation Scale, MAAS = The Mindfulness Attention Awareness Scale

Table 2 showed number of items, mean, standard deviation, alpha reliability and range of smartphone addiction, social isolation and mindfulness. Reliabilities of smartphone Addiction, Social Isolation and Mindfulness are .83, .92, .87 respectively.

Table 3

Relation analysis between smartphone Addiction, loneliness, and mindfulness (N=200)

Variables	2	3
1. Smartphone Addiction	.314**	-301**
2. Loneliness	--	-505**
3. Mindfulness	--	--

The Results revealed smartphone addiction was significantly negatively correlated with mindfulness *(r= -.301**, p<.01)* and significantly positively correlated with loneliness *(r=0.314**, p<.01).* mindfulness and loneliness were also significantly negatively correlated *(r= -.505**, p<.01).*

An Independent sample t test was carried out to examine the gender differences in study variables i.e., sleep quality, self-efficacy and social competence.

Table 4

Gender differences of smartphone Addiction, loneliness and Mindfulness among young adults

Variable	Men Mean (SD)	Women Mean (SD)	T	*p*	CL LL	UL	Cohen's d
SA	35.36(10.02)	33.54(10.39)	1.25	0.210	1.03	4.68	0.17
SI	25.63(11.81)	25.39(15.35)	0.12	0.12	-3.58	4.08	0.01
MAAS	53.28(13.8)	58.85(16.19)	-2.61	0.01	-9.76	-1.37	0.37

SA=Smartphone Addiction, SI= Social Isolation, MAAS= Mindfulness Attention Awareness Scale, M=Mean, SD=Standard Deviation, p=significant level, CL= Confidence Interval, UL= Upper limit, LL= Lower Limit

The results revealed that no gender differences were observed on all study variables.

Regression analysis was carried out to explore the predicting effects of smartphone addiction on social isolation and mindfulness.

To Explore the association between study variable regression analysis was employed.

Table 3.4

Regression coefficient of smartphone addiction on mindfulness and loneliness (N=200)

Variables	*B*	SE	t	*.p*
Constants	37.47	3.94	9.50	.00
Social Isolation	.16	.058	2.79	.00
Mindfulness	-.12	.052	-2.46	.01

Note: β = Unstandardized Coefficient Beta, SE= Standard Error, p= significant level

A simple linear regression analysis revealed that higher smartphone addiction significantly predicted greater loneliness, *[β = 0.16, t (198) = 2.79, p < .01], and* lower mindfulness*, [β = –0.12, t(198) = –2.46, p = .01].*

Discussion

The present study examined the relationship between smartphone addiction, social isolation, and mindfulness among young adults aged 19 to 34. Data were collected through convenience sampling. This chapter discusses the findings derived from the analysis. First, smartphone addiction scores were compared across gender, and results indicated that men and women scored almost equally on addiction measures. The literature reflects mixed findings regarding gender differences. Several studies argue that as internet and smartphone use became increasingly widespread, both men and women may become equally involved in excessive smartphone use, resulting in minimal gender differences in addiction levels (Chiu, 2013; Walsh, 2011). Research also shows that younger individuals tend to be more vulnerable to smartphone overuse and behavioral addiction due to their high engagement with digital technologies (Haug et al., 2015; De-Sola et al., 2016).

The first hypothesis predicted a significant relationship between smartphone addiction, social isolation, and mindfulness among young adults. The findings supported this assumption, demonstrating a significant positive association between smartphone addiction and social isolation, as well as meaningful correlations with mindfulness. These results suggest that individuals with higher mindfulness may be less vulnerable to social isolation and, consequently, better able to regulate their smartphone use. Prior studies align with these findings. For instance, Singh (2021) reported a strong positive relationship between smartphone addiction and social isolation among college students. Although Elemo (2023) found no direct association between mindfulness and smartphone addiction, his findings still support the notion that individuals with low mindfulness may be more susceptible to the psychological consequences of excessive smartphone use, including social isolation.

The second hypothesis proposed gender differences in smartphone addiction, social isolation, and mindfulness. The results indicated only minor differences between men and women. These findings resonate with the patterns observed by Park and Lee (2014), who reported higher levels of smartphone addiction among

Korean female students, along with greater loneliness scores. Although gender differences exist in some contexts, the present study suggests that addiction patterns may be becoming similar among young adults regardless of gender.

The third hypothesis stated that smartphone addiction would predict higher levels of social isolation and lower levels of mindfulness. The results supported this hypothesis, demonstrating that higher addiction scores were associated with greater social isolation and reduced mindfulness. Findings from earlier studies reinforce this relationship. For example, Aslan (2022) identified a positive correlation between smartphone addiction and social isolation among high school students, while Arpaci (2019) found that higher mindfulness levels were associated with decreased smartphone addiction. These converging findings indicate that mindfulness may serve as a protective factor against the social and emotional consequences of excessive smartphone use.

Conclusion

In conclusion, the findings of the present study highlight the important role of mindfulness in reducing the negative effects of smartphone addiction and social isolation among young adults. Smartphone addiction emerged as a significant factor contributing to increased social isolation, emphasizing the need for balanced and intentional smartphone use. The results further suggest that mindfulness-based practices may help individuals regulate their smartphone habits, strengthen social connectedness, and mitigate psychological distress. These findings support the integration of mindfulness-focused interventions within programs designed to address excessive smartphone use. Continued research is necessary to deepen understanding of how mindfulness shapes digital behavior and to refine strategies that can enhance well-being in populations at risk of behavioral addiction.

Limitations

1. The reliance on self-report instruments may have led participants to provide socially desirable rather than fully accurate responses.
2. The study focused only on young adults, which restricts the generalizability of findings to other age groups.

Suggestions for Future Research

1. Conduct follow-up (longitudinal) studies to observe changes in smartphone addiction, mindfulness, and social isolation over time.
2. Examine distinct dimensions of adjustment—such as emotional, academic, and social functioning—to clarify how they relate to smartphone addiction and mindfulness.
3. Explore how contextual factors such as social support, stress, or family environment influence these relationships.
4. Investigate personality traits, coping strategies, and life experiences that may moderate or mediate the links between smartphone addiction, mindfulness, and social isolation.

References

Ahmad, T., Ahmad, W., Ur Rahman, W., Khan, Y. U., & Hussain, A. (2024). *Prevalence of smartphone addiction among undergraduate students in Khyber Pakhtunkhwa, Pakistan*. Journal of Biological and Allied Health Sciences, 6(1), 80–85.

Al-Kandari, Y. Y., & Al-Sejari, M. M. (2020). Social isolation, social support and their relationship with smartphone addiction. *Information, Communication & Society, 24*(14), 1925–1943. https://doi.org/10.1080/1369118X.2020.1736127

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. https://doi.org/10.1037/0003-066X.55.5.469

Bajwa, R. S., Abdullah, H. B., Jaafar, W. M. W., & Samah, A. K. A. (2022). Addicted to smartphones: Exploring the prevalence of smartphone usage patterns and addiction among undergraduates in South Punjab–Pakistan. *Rawal Medical Journal, 47*(2), 446–450.

Bodhi, B. (2000). *A comprehensive manual of Abhidhamma: The philosophical psychology of Buddhism*. Onalaska, WA: Buddhist Publication Society Pariyatti Editions.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822–848. https://doi.org/10.1037/0022-3514.84.4.822

Chiu, S. I. (2013). The relationship between life stress and smartphone addiction on Taiwanese adolescents: Self-efficacy as a mediator. *CyberPsychology, Behavior, and Social Networking, 16*(3), 764–768.

Cornwell, E. Y., & Waite, L. J. (2009). Social disconnectedness, perceived isolation, and health among older adults. *Journal of Health and Social Behavior, 50*(1), 31–48.

Courtin, E., & Knapp, M. (2017). Social isolation, loneliness and health in old age: A scoping review. *Health & Social Care in the Community, 25*(3), 799–812.

De-Sola, J., Rodríguez de Fonseca, F., & Rubio, G. (2016). Cell-phone addiction: A review. *Frontiers in Psychiatry*, 7, 175. https://doi.org/10.3389/fpsyt.2016.00175

Dikec, G., Gul, E., & Avci, A. (2017). Relationship between smartphone addiction and loneliness among adolescents. *Journal of Education and Training Studies, 5*(9), 128–135.

Elemo, A. S. (2023). Mindfulness and smartphone addiction among international students: A moderation analysis. *Journal of Behavioral Addictions, 12*(2), 247–258.

Greenfield, D. N. (2013). *The Center for Internet and Technology Addiction*. Retrieved from https://virtual-addiction.com

Haug, S., Castro, R. P., Kwon, M., Filler, A., Kowatsch, T., & Schaub, M. P. (2015). Smartphone use and smartphone addiction among young people in Switzerland. *Journal of Behavioral Addictions, 4*(4), 299–307.

Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science, 10*(2), 227–237.

Hölzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science, 6*(6), 537–559.

Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Delacorte.

Khatony, A., et al. (2019). (If you want, I can correct this fully if you give complete journal details.)

Lisle, S. M. D., Dowling, N. A., & Allen, J. S. (2012). Mindfulness and problem gambling: A review of the literature. *Journal of Gambling Studies, 28*(4), 719–739.

Miller, G. (2012). The smartphone psychology manifesto. *Perspectives on Psychological Science, 7*(3), 221–237.

Nicholson, N. R. (2009). Social isolation in older adults: An evolutionary concept analysis. *Journal of Advanced Nursing, 65*(6), 1342–1352.

Nyanaponika Thera. (1976). *Abhidhamma studies: Researches in Buddhist psychology* (3rd ed.). Sri Lanka: Buddhist Publication Society.

Ofcom. (2016). *The UK is now a smartphone society*. Retrieved from https://www.ofcom.org.uk

Park, N., & Lee, H. (2014). Gender differences in social networking on smartphones: A Korean college student study. *Cyberpsychology, Behavior, and Social Networking, 17*(4), 224–229.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Mindfulness as a treatment for behavioural addiction. *Journal of Addiction Research & Therapy, 5*(1), e122.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). The treatment of workaholism with Meditation Awareness Training: A case study. *Explore, 10*(3), 193–195.

Swader, C. S. (2019). Loneliness in Europe: Personal and societal individualism–collectivism and their connection to social isolation. *Social Forces, 97*(3), 1307–1336.

Victor, C. R., Scambler, S., & Bond, J. (2009). *The social world of older people: Understanding loneliness in later life*. Maidenhead, UK: Open University Press.

Walsh, S. (2011). Exploring adolescent internet addiction: Demographic and family factors. *Journal of Behavioral Addictions, 1*(3), 56–62.

Wajcman, J., Bittman, M., & Jones, P. (2007). The impact of the mobile phone on work/life balance. *Social Indicators Research, 84*(3), 405–423.

Young, K., Pistner, M., O'Mara, J., & Buchanan, J. (1999). Cyber disorders: The mental health concern for the new millennium. *CyberPsychology & Behavior, 2*(5), 475–479.