

ASSOCIATION BETWEEN MOBILE PHONE OVERUSE, SLEEP QUALITY, AND PSYCHOLOGICAL WELLBEING AMONG UNIVERSITY STUDENT



by

Baqir Hussain
Reg. No BSP191030

A Research Thesis submitted to the
DEPARTMENT OF PSYCHOLOGY
in partial fulfillment of the requirements for the degree of
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences
Capital University of Science & Technology,
Islamabad
January, 2023

ASSOCIATION BETWEEN MOBILE PHONE OVERUSE, SLEEP QUALITY, AND PSYCHOLOGICAL WELLBEING AMONG UNIVERSITY STUDENT



by

Baqir Hussain
BSP191030

A Research Thesis submitted to the
DEPARTMENT OF PSYCHOLOGY
in partial fulfillment of the requirements for the degree of
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences
Capital University of Science & Technology,
Islamabad

January 2023

Copyright © 2023 by CUST Student

All rights reserved. Reproduction in whole or in part in any form requires the prior written permission of Baqir Hussain or a designated representative.

DECLARATION

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.



Baqir Hussain

BSP191030

January 2023

Association Mobile Phone Overuse, Sleep Quality and psychological Wellbeing Among
University Student

By

Baqir Hussain

Registration # BSP191030

Approved By



Supervisor
Ms. Irum Noureen



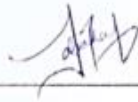
Internal Examiner-I
Ms. Uzma Mushtaq



Internal Examiner-II
Sr. Muhammad Naem



Thesis Coordinator
Ms. Irum Noureen

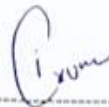


Head of Department
Dr. Sabahat Haqqani

CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Association between mobile phone overuse, sleep quality and psychological wellbeing among university student" was carried out by Baqir Hussain, Reg. No. BSP191030, under the supervision of Ms. Irum Noreen, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

Supervisor:



Ms. Irum Noreen
Lecturer
Department of Psychology
Faculty of department of psychology
Capital University of Science & Technology, Islamabad

HoD:



Dr. Sabahat Haqqani
Assistant Professor
Department of Psychology
Faculty of Management and Social Sciences
Capital University of Science & Technology, Islamabad

ACKNOWLEDGMENT

I would like to thank my most humble supervisor Ma'am Irum Noureen and Abdul Hadi who directly helped me in the completion of the Research thesis

TABLE OF CONTENTS

DECLARATION	I
CERTIFICATE OF APPROVAL	II
ACKNOWLEDGMENT	III
ABSTRACT	VI
TABLE OF CONTENTS	V
LIST OF FIGURES	VI
LIST OF TABLES	VII
Chapter 1. Introduction	9
Mobile phone overuse.....	10
Sleep quality.....	10
Literature review	11
Theoretical framework	14
Rationale	16
Objectives	16
Research questions / Hypotheses	16
Chapter 2. Method	17
Research Design.....	17
Population and sample	17
Sampling procedures/ Technique	17
Measures/ Instruments	17
Procedures	18
Data analyses procedures.....	18
Chapter 3. Result	19
Chapter 4. Discussion	23
Limitations	24
Recommendations/ Implications	24
References	25
Appendices	31

Abstract

The current study aimed to examine the relationship between mobile phone overuse, sleep quality, and psychological well-being among university students. data were collected from undergraduate students and the sample consisted of 300 respondents. The study was cross sectional design with data gathered from university students of Rawalpindi and Islamabad. Data was collected by using three scales. smartphone addiction scales, sleep quality, psychological well-being scale. And the result of my study rejected my hypothesis and the remaining two are excepted the positive relationship between sleep quality and psychological well-being.

Keywords: Sleep Quality, Mobile Phone overuse, psychological well-being.

Chapter-1

Introduction

Mobile phone overuse is one of the common problems among adults worldwide that is hailed as excessive phone use while engaging with others. Activities such as learning, driving, social gatherings, and even sleep. Addiction to the mobile phone is a serious problem that leads to one negative effect on the person's thoughts, behavior, and psychological well-being.

Mobile phone overuse implies a lack of control over to use of the mobile phone despite negative effects including poor psychological well being, poor sleep quality. 96% of young individuals between the ages of 18 and 29 who own a smartphone also own a mobile phone, according to Pew Research Center data from 2019. The accessibility of smartphones provides instant satisfaction, but at a cost. One survey found that students use their phones for about 9 hours each day, which is a significant amount of time for kids Roberts et al.,(2014). In actuality, increased phone use has been linked to lower grades, maybe in part because of students using their Mobile in class (Bjornsen & Archer,2015),(Jacobsen & Forste, 2011),(Lepp et al, 2014)

Student use of cell phones has an effect on both their physical and emotional well-being. Although it hasn't been studied, excessive cell phone use has been linked to headaches, irritability, poor focus, anxiety, poor sleep quality, and decreased life satisfaction (Fossum et al., 2014; Li et al., 2015). (Acharya et al., 2013). Many academics have proposed theories as to why students display symptoms of smartphone addiction.

The current study sought to investigate the connection between university students' psychological well-being, sleep quality, and mobile phone use. Griffiths (2003) suggested that anything that causes excitement causes addiction.

Mobile Phone overuse

Over the past two decades, smartphones have integrated functions from almost every possible area, be it navigation, performing complex calculations, socializing, commercial or educational purposes. The list is limitless and everything can be found at the touch of a button. Sleep Quality Baglioni et al. (2016) (2016). There is proof that smartphones reduce the quality of sleep (Christensen et al., 2016; Demirci et al., 2015). A meta-analysis published in 2019 indicated that the median prevalence of smartphone addiction in children and young adults was 23% and that the majority of research used the SAS-SV questionnaire. and a considerable lag in smartphone use is linked to poor sleep, depressive disorders, anxiety, tension, and impairment in day-to-day activities Sohn et al., (2019). The relationship between perceived stress and sleeping habits has been studied, but Dharmadhikari et al., (2019).

Sleep quality is a significant health indicator Aguirre, The pervasive behavioral changes and risky behaviors that students have adopted as a result of excessive smartphone use are less documented, despite the fact that research indicates that all addictive behaviors are predicted by emotional dysregulation.

Psychological Well-Being

The World Health Organization defines health as “a state of complete physical, mental and social well-being and not just the absence of disease or infirmity”. Based on the such a definition, maintaining a favorable balance between physical, mental, and social states is necessary to ensure complete well-being. Acting on the choices a person makes throughout life has an important role in changing a person’s well-being in a positive or negative way. Given that positively maintaining well-being makes individuals happy, researchers have begun to explore other potential factors that may affect happiness (Saygın & Arslan, 2009).

Literature Review

Studies among university students provide some evidence to suggest thatThe usage of mobile devices excessively can harm one's ability to sleep and mental wellness. Here is data that suggests frequent use of mobile devices may not be beneficial. on sleep quality and psychological well-being among university students. One study found that higher levels of mobile phone use were associated with reduced sleep quality, as well as increased symptoms of depression and anxiety. (K Demirci ,2015) Similarly, another study found that frequent use of smartphones was associated with poor psychological well-being outcomes, including increased stress and decreased levels of well-being. It's believed that the blue light emitted by mobile phone screens can interfere with the body's normal sleep-wake cycle, making it harder to get to sleep and stay asleep.

Additionally, constant notifications and the pressure to respond to messages can create a sense of urgency and lead to increased stress and anxiety. It is important for university students to be aware of the potential negative effects of frequent smartphone use and to take steps to manage their phone use in a healthy way. This may include setting limits on phone use, establishing designated times for phone-free activities, and finding other healthy ways to manage stress and improve sleep quality.

There have been few research studies conducted on the topic of the impact of mobile phone use and psychological well-being among university students. Here are a few examples of such studies: A study analyzed data from over 4,100 university students and found that mobile phone use was significantly associated with poor sleep quality and increased fatigue (Chen, et al., 2016). Another study found that university students who used their phones more frequently before bed reported lower sleep quality and increased fatigue (Drewes, et al., 2018). Another study found that higher levels of mobile phone use were associated with increased symptoms of anxiety and depression among university students (Elhaïet al., 2018).

According to Przybylski et al., (2019) university students who used their phones more frequently reported lower levels of well-being and higher levels of stress. These studies provide evidence to suggest that the overuse of mobile phones may have negative effects on sleep quality and psychological well-being among university students. However, it is important to note that more research is needed to fully understand this relationship and determine the precise nature and extent of these effects. Literature suggests that the overuse of mobile phones can have negative effects on the psychological well-being of university students.

According to one study, increased mobile phone use was linked to improved depression and anxiety symptoms as well as poor sleep. Another study discovered a similar relationship between excessive mobile phone use and poor psychological wellness outcomes, including increased stress and decreased feelings of well-being. It's believed that the blue light emitted by mobile phone screens can interfere with the body's normal sleep-wake cycle, making it harder to get to sleep and stay asleep. A sense of urgency can be created by continual notifications and the need to reply to messages, which can increase tension and anxiety. This can include setting rules on phone use, designating periods for phone-free activities, and discovering more healthy coping mechanisms for stress and poor sleep.

Here are some additional references that provide more information on the impact of mobile phone overuse on sleep quality and psychological well-being among university students: A study found that higher levels of mobile phone use were associated with reduced sleep quality and increased symptoms of depression and anxiety among university students

(Kwon, et al., 2013). A review of the study found that excessive use of mobile phones was associated with poor mental health outcomes, including increased stress and decreased levels of well-being among university students (Koufaris, 2014). A study found that mobile phone use was associated with poor sleep quality and increased fatigue among university students (Chen, et al., 2016). Another study found that mobile phone use before bed was associated with reduced sleep quality and increased fatigue among university students (Drewes, et al., 2018).

It is significant to emphasize that additional study is required in order to completely comprehend the association between mobile phone use. These findings do not go far enough. The ubiquity of cell phones provides instant gratification, but at a cost. One survey found that students use their phones for about 9 hours each day, which is a significant amount of time for kids (Roberts et al., 2014). In actuality, increased phone use has been linked to lower grades, maybe in part because of students using their phones in class (Bjornsen & Archer, 2015; Jacobsen & Forste, 2011), (Lepp et al., 2014), (Li et al., 2015).

Cell phone use has an effect on children's physical and emotional well-being. The link between excessive cell phone use and poor sleep quality is unclear to researchers (Fossum et al., 2014; Li et al., 2015). Increased anxiety levels, reduced life satisfaction, headaches, irritability, and poor focus are some of the side effects of mobile phone use (Lepp et al., 2014). Many academics have proposed theories as to why students display symptoms of smartphone addiction.

In a study of smartphone users, it was discovered that those who used their devices excessively had higher state anxiety levels, anxiety, and depression than those who used their devices normally (Hwang, Yoo & Cho, 2012). A significant public health issue in technologically advanced cultures is poor sleep quality (Cheung & Wong, 2011). Adolescents have been the main subject of most research that has looked at the relationship between using electronic media and sleeping. According to a survey, difficult Internet use has been associated with sleep problems like insomnia and poor sleep quality (Lam, 2014). Similarly to this, Song et al., (2010) hypothesized a link between depression and sleep issues in adolescents and Internet addiction.

Numerous studies from the past have demonstrated that a student who is attending university may suffer from poor sleep patterns and quality. Students these days are so interested in their smartphones that they are testing the limits of their independence, which affects their ability to get a good night's sleep. Additionally, it has been discovered that students experience a variety of sleep problems, which negatively impact their way of life. Another study conducted

by Abbey et al., (2015) indicated that while sleep duration is not a factor, certain characteristics of smartphone users are connected to sleep quality.

Recent studies have shown a strong correlation between these sleep disorders and a number of health issues and mobile phones. In a study conducted by Larry et al., (2010) Rosen Larry, and Carrier.M (2011), it was discovered that the cognitive and affective aspects that affect how much time people spend using technology had a significant impact on their ability to sleep. It was also observed that sleep issues are influenced by excessive reliance on mobile devices and late-night awakenings caused by spending endless hours on them.

Theoretical Framework

According to the self-regulation theory (SRT), we make an effort to control our thoughts, words, and actions in order to be the people we want to be in both immediate and long-term settings. Much of self-regulation is stopping us from acting in ways we know we shouldn't, including refraining from unkind criticism of others. Additionally necessary for promoting psychological well-being is self-control. According to Baumeister et al. (2007), there are four parts to self-regulation: 1) Expectations of desired behavior 2) Goal: To meet expectations. 3) Monitoring: Of circumstances and ideas that precede transgressions of standards. 4) Willpower: The capacity to restrain one's own impulses. According to self-regulation studies, adolescents who struggle with self-control are more likely to engage in compulsive smartphone behavior (Gökçearsan et al., 2016; van Deursen et al., 2015). Literature encourages a vibrant and fact-based discussion on the role of sleep quality in self-regulation from several angles. Anderson (2010), a sleep researcher, outlines the crucial elements that are most likely to have an impact on psychological and self-regulatory health. According to scientists, while the quantity and consistency of sleep combine to dramatically reduce psychological well-being over the course of a week, sleep quality does have an impact on this. (Wang, 2018). Impulse control and short-term desire management are both parts of self-regulation. Impulsive individuals have a tendency to act on their immediate wishes. This is one way for these people to end up using their phones excessively, which affects the quality of their sleep and their general health. 2017 (Wilmer).

Rationale

Smartphone use among university students is associated with delayed bedtime, reduced total sleep time, low psychological wellbeing and poor sleep quality. With the steady increase in media devices and internet usage among university students we examined the influence of smart phone overuse on sleep quality. One of the goals of the current study was to examine the link between frequent use of mobile phones and university students' sleep patterns and

psychological wellbeing. The effects of excessive mobile phone use on university students' sleep patterns and prospective effects on sleep quality have been studied in the literature. Research in this field is important because student life is now almost entirely dominated by mobile phone use, and its effects on individuals are only just starting to become apparent. The purpose of this study was to investigate the connection between university students' well-being, excessive usage of mobile devices, and sleep quality.

Objectives

1. To explore the association between mobile phone overuse and sleep quality among university students.
2. To determine the association between mobile phone overuse and psychological well-being among university students.
3. To explore the gender difference in mobile phone overuse, sleep quality, and psychological wellbeing among university students.

Hypotheses

1. There will be a negative relationship between mobile phone overuse and sleep quality among university students.
2. There will be a negative relationship between mobile phone overuse and psychological well-being among university students.
3. There will be a positive relationship between sleep quality and psychological well-being among university students.
4. There will be a significant gender difference in mobile phone overuse, sleep quality, and psychological well-being among university students.

Method

Research Design

This study utilized a correlational cross-sectional study design in which data was collected at one point by using the survey method.

Sampling And Sampling Technique

In the present study, data was collected from university students, using a convenience sampling technique.

Instruments

Smartphone Addiction Short Scale (SAS)

Kwon developed the SAS to quantify smartphone addiction (2016). Six variables and 33 items make up the Likert scale for this scale, with 1 meaning "strongly disagree" and 6 denoting "strongly agree." Self-reported SAS data are used. The six criteria were daily life disruption, pleasurable anticipation, withdrawal, connection focused on the internet, overuse, and tolerance. The SAS has a Cronbach's alpha of 0.96. The scale of Sleeping Quality

Seep Quality Scale (SQS)

This scale was invented by Chol Shin in 2006. The 28-item SQS assesses six aspects of sleep quality: difficulty waking, daytime symptoms, recuperation after sleep, problems starting and maintaining sleep, and sleep satisfaction. The scale was developed with the goal of serving as an all-encompassing, practical instrument that could be used to assess sleep quality across a range of patient and research populations. Test-retest reliability is .81, and internal consistency is .92. Respondents rate the frequency of various sleep patterns using a four-point Likert scale (0 = "few," 1 = "sometimes," 2 = "frequently," and 3 = "nearly usually"). Prior to tally, the scores on the questions related to criteria 2 and 5 (restoration following sleep and pleasure with sleep) ratings vary from 0 to 84; higher values signify graver circumstances. serious sleep problems 28-item SQS: midday difficulty waking.

Psychological Wellbeing Scale (PWS) (Ryff & Keyes, 1995)

By Carol Ryff, a psychological wellbeing measure was created (1995). Based on 54 things, the scale. A 7-point Likert scale was used. Six subscales make up the PWB Scale. Reverse scoring is required for questions Q1, Q2, Q3, Q8, Q9, Q11, Q12, Q13, Q17, and Q18. Items that receive a reverse score have wording those contrasts with the scale's direction of measurement. RPWBS has a 0.82 test-retest reliability coefficient.

Procedure

The data was collected from 300 participants. The questionnaire was given to each participant. The questionnaires were provided in English. Participants were first asked to fill out the information to the best of their knowledge and belief, participants were also requested to complete the whole questionnaire.

Ethical Considerations

of participants and their agreement were obtained. Participants were also informed that they could choose not to participate and that this would have no effect on the outcome. Data from participants have been kept private, and after they provided informed consent, they were given the freedom to withdraw from the study at any time without consequences. It was ensured that participants did not experience any problems during their participation. The participant's data were stored without any identifiers attached to avoid identification of participants such as names etc.

Chapter 3**Results**

The study explores a connection between mobile phone overuse, sleep quality, and psychological well-being among university students. Smartphone addiction is defined as the lack of control uses the effect include psychological financial and physical consequences for users. sleep quality is defined as an individual self-satisfaction with all the aspects of sleep latency, sleep duration, and waking after sleep onset. Psychological well-being is associated with flexible and creative thinking pro-social and good physical health. Mobile phone addiction scale, sleep quality scale, and well-being scale are used in this study. Data analysis executed through SPSS (statistical package for the social science) mean standard, deviation, bonfire, minimum, and maximum was found out by using descriptive statistics for determination of the one-way ANOVA and t-test used for determining the difference in the association between mobile phone addiction sleep quality and psychological wellbeing among university students.

The sample in the current study 300 sample was taken which include 87 males and 213 females taken from the city of Islamabad the data was collected through convenient sampling. For administration, the descriptive statistics of the scale, mean and standard deviation were calculated.

Table 1*Frequency for Demographic Variables (N=300).*

Characteristics	<i>F</i>	%
Gender		
Male	87	29.3
Female	213	71.3
Educational level		
BS	276	92.0
MS	23	7.8
PHD	1	.3
Family System		
Neutral	88	29.5
Join family	205	69.2

Table (1) exhibits the demographic variables and their frequency and percentage. These variables include gender, department, class, and semester. It shows that female (213) has a higher frequency than males (87), with a percentage of 28.3% and 38% respectively. The table also shows that the highest number of respondents who had a qualification of Master's above is 7.8%, then those with a Bachelor's degree at 92.0%, and the least number of Ph.D. degrees. .3%. The table shows the s that the frequency of the joint family system was higher as compared to the neutral family system.

Table 2

Mean standard deviation skewness kurtosis Kolmogorov Smirnov test and P value of mobile phone overuse psychological wellbeing and sleep quality.

Scale	N	a	M	Std.	Skewness	Kurtosis	K-S	<i>p</i>
PSPU	300	.801	109.8	26.75	-.249	-.244	.096	.003
PWB	300	.889	201.7	30.52	.204	.683	.067	.200*

SQ 300 .828 97.08 813.15 14.92 222.8 .513 .000

Note: M=Mean Score, SD=Standard Deviation, a= Chronach Alpha, K-S= Kolmogorov Smirnov=To Significant Levels SPU= Mobile Phone Overuse, PWB=Psychological Wellbeing, SQ= Sleep Quality.

As shown the result of descriptive statistics and normality testing for the scale shows that the scale is not normality distributed except for the psychological well-being scale (report as $p > .05$).

Table 3

Spearman Correlation between mobile phone overuse, sleep quality, and psychological wellbeing (N=300).

Measure	1	2	3
1. MPOU		.46**	.053
2. PWB	-	-	.050
3. SQ			-

Note: MPOU=Mobile Phone Overuse, PWB= Psychological Well-being, SQ= Sleep Quality

As shown in the table, results show a significant relationship between mobile phone overuse and psychological well-being. A non-significant relationship was found between psychological well-being and sleep quality. Results also reveal a non-significant relationship between mobile phone overuse and sleep quality.

Chapter 4

Discussion

The purpose of this study is to determine the relationship between excessive mobile phone use, sound sleep, and university students' psychological wellbeing. Data was collected by using three scales. Data was collected from university students. The sample of the present study was three hundred university students that male is 87 and female are 213. Three scales were used to measure variables for measuring mobile phone overuse, and sleep quality effect on psychological wellbeing. Scale was used statistically analyzed with the help of SPSS by using Pearson correlation and the other thing this was obtained it was also hypothesized that the mobile phone addiction, sleep quality and psychological wellbeing had a negative relationship with the sleep quality on psychological wellbeing. Moreover, the third demography is a marital status which also shows a significant difference in the result.

The result of descriptive statistics and normality testing for scale shows that scale is not normality distributed except for psychological wellbeing scale.

It was hypothesized in present study that there will be a negative relationship between mobile phone overuse and sleep quality among university students. This hypothesis is rejected in current study. The reason for this could be that overtime mobile use is very common among the young generation and it does not affect their sleep quality. 2nd hypothesis of the study was that there will be a negative relationship between mobile phone overuse and psychological wellbeing. Results show the significant connection between smart phone addiction and psychological wellbeing. Hypothesis is accepted in this study. Literature supports this finding. Elhai et al., (2017) discovered evidence that smartphone overuse can be negative to psychological wellbeing.

The third hypothesis of the study was that there will be positive relationship between sleep quality and psychological wellbeing. Non-significant positive relationship was found out between psychological wellbeing and sleep quality. The previous studies also suggest significant positive relationship between sleep quality and psychological wellbeing (Keyu, 2018). Literature also suggests a positive relationship between these two variables.

Conclusion

In recent years, there has been a lot of research on mobile phone overuse, with several studies examining the negative effects of excessive phone use on different ages of people. The linkage between mobile phone overuse, quality sleep, and psychological well-being has been found out in current study. Is research to explore the relationship between mobile overuse, sleep quality and psychological wellbeing among university students. Data was collected from twin cities Islamabad and Rawalpindi sampling technique for data collection was convenient sampling. The survey method was used in this research scale were used softer the permission of author. To conclude the of this present research it can be said there exists a positive relationship between sleep quality and psychological wellbeing. And there is a negative relationship between mobile phone overuse and psychological wellbeing among university students. It is concluded that by controlling mobile phone overuse students can enhance their sleep quality and psychological wellbeing.

Limitations of Study

The population will only be from Rawalpindi and Islamabad, if a different population from different areas was studied then study would yield better results.

Implications

This study will have theoretical and practice applications.

References

- Abu-Jedy, A. (2008). Mobile phone addiction and its relationship with self-disclosure among a sample of students from University Of Jordan And Amman Al-Ahliyya University. *Jordan J Educ Sci*, 4(2), 137-50.
- Acharya, J. P. (2013). Common health effects of cell phones among college students. *J. Community Med. Health Educ*, 3(1), 1-4.
- Aguirre, C. C. (2016). Sleep deprivation: a mind-body approach. *Current Opinion In Pulmonary Medicine*, 22(6), 583-588.
- Ahmed, I., & Perji, K. A. (2011). Mobile phone to youngsters: Necessity or addiction. *Information Management and Business Review*, 2(5), 229-238.
- Arora, A., Chakraborty, P., & Bhatia, M. P. S. (2022). Intervention of wearables and smartphones in real time monitoring of sleep and behavioral health: an assessment using adaptive neuro-fuzzy technique. *Arabian Journal for Science and Engineering*, 47(2), 1999-2024.
- Ayub, A. F. M., Hamid, W. H. W., & Nawawi, M. H. (2014). Use of Internet for Academic Purposes among Students in Malaysian Institutions of Higher Education. *Turkish Online Journal of Educational Technology-TOJET*, 13(1), 232-241.
- Baglioni, C., Nanovska, S., Regen, W., Spiegelhalder, K., Feige, B., Nissen, C., ... & Riemann, D. (2016). Sleep and mental disorders: A meta-analysis of polysomnographic research. *Psychological bulletin*, 142(9), 969.

- Billieux, J., Van der Linden, M., & Rochat, L. (2008). The role of impulsivity in actual and problematic use of the mobile phone. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, 22(9), 1195-1210.
- Bjornsen, C. A., & Archer, K. J. (2015). Relations between college students' cell phone use during class and grades. *Scholarship of Teaching and Learning in Psychology*, 1(4), 326.
- Casey, B. M. (2012). Linking psychological attributes to smartphone addiction, face-to-face communication, present absence and social capital. *Graduation Project, Graduate School of the Chinese University of Hong Kong*.
- Chak, K., & Leung, L. (2004). Shyness and locus of control as predictors of internet addiction and internet use. *CyberPsychology & Behavior*, 7(5), 559-570.
- Cheung, L. M., & Wong, W. S. (2011). The effects of insomnia and internet addiction on depression in Hong Kong Chinese adolescents: an exploratory cross-sectional analysis. *Journal of sleep research*, 20(2), 311-317.
- Choliz, M. (2012). Mobile-phone addiction in adolescence: the test of mobile phone dependence (TMD). *Progress in health sciences*, 2(1), 33-44.
- Demir, Y. P., & Sümer, M. M. (2019). Effects of smartphone overuse on headache, sleep and quality of life in migraine patients. *Neurosciences Journal*, 24(2), 115-121.
- Dharmadhikari, S. P., Harshe, S. D., & Bhide, P. P. (2019). Prevalence and correlates of excessive smartphone use among medical students: A cross-sectional study. *Indian journal of psychological medicine*, 41(6), 549-555.
- Diener, E., Sapyta, J. J., & Suh, E. (1998). Subjective well-being is essential to well-being. *Psychological Inquiry*, 9(1), 33-37

- Ezoe, S., Toda, M., Yoshimura, K., Naritomi, A., Den, R., & Morimoto, K. (2009). Relationships of personality and lifestyle with mobile phone dependence among female nursing students. *Social Behavior and Personality: an international journal*, 37(2), 231-238.
- Fossum, I. N., Nordnes, L. T., Storemark, S. S., Bjorvatn, B., & Pallesen, S. (2014). The association between use of electronic media in bed before going to sleep and insomnia symptoms, daytime sleepiness, morningness, and chronotype. *Behavioral sleep medicine*, 12(5), 343-357.
- Gafni, R., & Geri, N. (2013, February). Generation Y versus generation X: Differences in smartphone adaptation. In *Learning in the technological era: Proceedings of the Chais conference on instructional technologies research* ,(pp. 18-23).
- Griffiths, M. (1996). Nicotine, tobacco and addiction. *Nature*, 384(6604), 18-18.
- Griffiths, M. (2003). Internet gambling: Issues, concerns, and recommendations. *Cyber Psychology & behavior*, 6(6), 557-568.
- Hassanzadeh, R., & Rezaei, A. (2011). Effect of sex, course and age on SMS addiction in students. *Middle-East Journal of Scientific Research*, 10(5), 619-625.
- Holst, A. (2018). Smartphones in the US-Statistics & Facts.
- Hong, F. Y., Chiu, S. I., & Huang, D. H. (2012). A model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female students. *Computers in human behavior*, 28(6), 2152-2159.
- Jacobsen, W. C., & Forste, R. (2011). The wired generation: Academic and social outcomes of electronic media use among university students. *Cyberpsychology, Behavior, and Social Networking*, 14(5), 275-280.

- Kang, H. S., Chang, K. E., Chen, C., & Greenberger, E. (2015). Locus of control and peer relationships among Caucasian, Hispanic, Asian, and African American adolescents. *Journal of Youth and Adolescence*, 44(1), 184-194.
- Kumar, V. A., Chandrasekaran, V., & Brahadeeswari, H. (2019). Prevalence of smartphone addiction and its effects on sleep quality: A cross-sectional study among medical students. *Industrial Psychiatry Journal*, 28(1), 82.
- Kumcagiz, H., & Gündüz, Y. (2016). Relationship between psychological well-being and smartphone addiction of university students. *International Journal of Higher Education*, 5(4), 144-156.
- Kwon, M., Lee, J., Won, W., Park, J., Min, J., & Hahn, C. C... & Kim, DJ (2013). Development and validation of a smartphone addiction scale (SAS). *Plos One*, 8(2).
- Lepp, A., Barkley, J. E., & Karpinski, A. C. (2015). The relationship between cell phone use and academic performance in a sample of US college students. *Sage Open*, 5(1), 2158244015573169.
- Liu, C., & Ma, J. (2020). Social support through online social networking sites and addiction among college students: The mediating roles of fear of missing out and problematic smartphone use. *Current Psychology*, 39(6), 1892-1899.
- Matthews, T., Pierce, J., & Tang, J. (2009). No smartphone is an island: The impact of places, situations, and other devices on smart phone use. *IBM RJ10452*, 1-10.
- Wilmer, H. H., Sherman, L. E., & Chein, J. M. (2017). Smartphones and Cognition: A Review of Research Exploring the Links between Mobile Technology Habits and Cognitive Functioning. *Frontiers in psychology*, 8, 605.
<https://doi.org/10.3389/fpsyg.2017.00605>

- Nehra, R., Kate, N., Grover, S., Khehra, N., & Basu, D. (2012). Does the excessive use of mobile phones in young adults reflect an emerging behavioral addiction. *J Postgrad Med Educ Res*, 46, 177-82.
- Pawłowska, B., & Potembska, E. (2011). Gender and severity of symptoms of mobile phone addiction in Polish gymnasium, secondary school and university students. *Current Problems of Psychiatry*, 12(4).
- Perry, S. D., & Lee, K. C. (2007). Mobile phone text messaging overuse among developing world university students. *Communicatio*, 33(2), 63-79.
- Roberts, B. W., Lejuez, C., Krueger, R. F., Richards, J. M., & Hill, P. L. (2014). What is conscientiousness and how can it be assessed?. *Developmental psychology*, 50(5), 1315.
- Robinson, E. D., Nzotta, C. C., & Onwuchekwa, I. (2019). Evaluation of scatter radiation to the thyroid gland attributable to brain computed tomography scan in Port Harcourt, Nigeria. *Int J Res Med Sci*, 7(2), 530-5.
- Sanders, W., Zeman, J., Poon, J., & Miller, R. (2015). Child regulation of negative emotions and depressive symptoms: The moderating role of parental emotion socialization. *Journal of Child and Family Studies*, 24(2), 402-415.
- Sohn, S. Y., Rees, P., Wildridge, B., Kalk, N. J., & Carter, B. (2019). Prevalence of problematic smartphone usage and associated mental health outcomes amongst children and young people: a systematic review, meta-analysis and GRADE of the evidence. *BMC Psychiatry*, 19(1), 1-10.
- Szpakow, A., Strizhak, A., & Prokopowicz, W. (2011). Evaluation of threat of mobile phone–addiction among Belarusian University students. *Prog Health Sci*, 1(2), 96-100.
- Takao, M., Takahashi, S., & Kitamura, M. (2009). Addictive personality and problematic mobile phone use. *CyberPsychology & Behavior*, 12(5), 501-507.

- Taneja, C. (2014). The psychology of excessive cellular phone use. *Delhi Psychiatry Journal*, *17*(2), 448-451.
- VandenBos, G. R. (2007). *APA dictionary of psychology*. American Psychological Association.
- Verma, R. K., Rajiah, K., Cheang, A., & Barua, A. (2014). Textaphrenia: an emerging silent pandemic. *Afr J Psychiatry*, *17*, 510-1.
- Kadir Demirci, Mehmet Akgönül and Abdullah Akpınar (2015). Relationship of Smartphone Use Severity with Sleep Quality, Depression, and Anxiety in University Students. doi: [10.1556/2006.4.2015.010](https://doi.org/10.1556/2006.4.2015.010)
- Saurav Uniyall, Dr. Savita K Tiwari (2020). Impact of excessive smartphone use on sleep quality and sleep length of college students. *The International Journal of Indian Psychology* ISSN 2348-5396

Appendices

A: Support letter

B: Consent form




C: Demographics

D: Mobile Phone Addiction

E: Sleep Quality

F: Psychological wellbeing

Appendices A: Support letter

		<p>Islamabad Expressway, Kahuta Road, Zone - V, Islamabad, Pakistan Telephone : +92-51-111-555-666 : +92-51-4486700 Fax : +92-51-4486705 Email : info@cust.edu.pk Website : www.cust.edu.pk</p>
<p>Capital University of Science & Technology Islamabad</p>		
<p>Ref. CUST/IBD/PSY/Thesis-201 October 17, 2022</p>		
<p>TO WHOM IT MAY CONCERN</p>		
<p>Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.</p>		
<p>Mr. Baqir Hussain, registration number BSP191030 is a bona fide student in BS Psychology program at this University from Spring 2019 till date. In partial fulfillment of the degree, he is conducting research on "Relationship between Mobile Phone Overuse, Sleep Quality, and Psychological Well Being Among University Students". He is required to collect data from your institute.</p>		
<p>Your cooperation is highly appreciated. Please feel free to contact undersigned, if you have any query in this regard.</p>		
<p>Best Wishes,</p>		
		
<p>Dr. Sabahat Haqqani Head, Department of Psychology Ph no. 111-555-666 Ext: 178 sabahat.haqqani@cust.edu.pk</p>		

Appendices B: Consent Form

I am Baqir Hussain enrolled in BS Psychology in Capital University of Science and Technology. I hereby invite you to take part in this study. The title of my research is "The Mobile phone addiction associate sleep quality and well-being among University Students."

In order to participate in this research, you have to fill out the questionnaires given. Your identity will be kept confidential. Your name will not be used in the report. Your participation is voluntary. If you want to terminate your participation in this study you can do so with no questions being asked, but it would be a great contribution and help to this research if you participate and give your honest responses.

Signature:

Date:

Appendices C: Demographic From**DIRECTIONS: Please answer each question as accurately as possible.**

1. Age: _____
2. Gender: 1) Male 2) Female
3. Education Level: 1) BS 2) MS 3) PhD
4. University: 1) Private 2) Public
5. Family System: 1) Neutral family system 2) Joint family system
6. Birth order: _____
7. Do you have any job? 1) Yes 2) No
8. Do you have personal mobile phone : 1) Yes 2) No
9. No of sleep hours a) 2 to 4 b) 4 to 6 c)6 to 9

Appendices D: Mobile Phone Addiction Scale

The following set of statements deals with how much you use smartphone. . Pick the number that best describes the degree to which you agree or disagree with each statement. “1” (strongly disagree) “2” (Disagree) “3”(Disagree Slightly) “4”(Agree Slightly) “5”(Agree) “6” (strongly agree)

Items 1 2 3 4 5 6

1. Missing planned work due to smartphone use.
2. Having a hard time concentrating in class, while doing assignments, or while working due to smartphone use.
3. Experiencing lightheadedness or blurred vision due to excessive smartphone use.
4. Feeling pain in the wrists or at the back of the neck while using a smartphone.
5. Feeling tired and lacking adequate sleep due to excessive smartphone use.
6. Feeling calm or cozy while using a smartphone.
7. Feeling pleasant or excited while using a smartphone.
8. Feeling confident while using a smartphone.
9. Being able to get rid of stress with a smartphone.
10. There is nothing more fun to do than using my smartphone.
11. My life would be empty without my smartphone.
12. Feeling most liberal while using a smartphone.
13. Using a smartphone is the most fun thing to do.
14. Won't be able to stand not having a smartphone.
15. Feeling impatient and fretful when I am not holding my smartphone.

16. Having my smartphone in my mind even when I am not using it.
17. I will never give up using my smartphone even when my daily life is already greatly affected by it.
18. Getting irritated when bothered while using my smartphone.
19. Bringing my smartphone to the toilet even when I am in a hurry to get there.
20. Feeling great meeting more people via smartphone use.
21. Feeling that my relationships with my smartphone buddies are more intimate than my relationships with my real-life friends.
22. Not being able to use my smartphone would be as painful as losing a friend.
23. Feeling that my smartphone buddies understand me better than my real-life friends.
24. Constantly checking my smartphone so as not to miss conversations between other people on Twitter or Facebook.
25. Checking SNS (Social Networking Service) sites like Twitter or Facebook right after waking up.
26. Preferring talking with my smartphone buddies to hanging out with my real-life friends or with the other members of my family.
27. Preferring searching from my smartphone to asking other people.
28. My fully charged battery does not last for one whole day.
29. Using my smartphone longer than I had intended.
30. Feeling the urge to use my smartphone again right after I stopped using it.
31. Having tried time and again to shorten my smartphone use time, but failing all the time.
32. Always thinking that I should shorten my smartphone use time.
33. The people around me tell me that I use my smartphone too much.

Appendices E: Psychological Wellbeing Scale

The following set of statements deals with how you might feel about yourself and your life.

Please remember that there are neither right nor wrong answers. Pick the number that best describes the degree to which you agree or disagree with each statement. “1” (strongly disagree) “2” (Disagree) “3”(Disagree Slightly) “4”(Agree Slightly) “5”(Agree) “6” (strongly agree)

Items 1 2 3 4 5 6

1. Most people see me as loving and affectionate.
2. I am not afraid to voice my opinion, even when they are in opposition to the opinions of most people.
3. In general, I feel I am in charge of the situation in which I live.
4. I am not interested in activities that will expand my horizons.
5. I live life one day at a time and don't really think about the future.
6. When I look at the story of my life, I am pleased with how things have turned out.
7. Maintaining close relationships has been difficulty and frustrating for me.
8. My decisions are not usually influenced by what everyone else is doing.
9. The demands of everyday life often get me down.
10. I don't want to try new ways of doing things—my life is fine the way it is.
11. I tend to focus on the present, because the future always brings me problems.
12. In general, I feel confident and positive about myself.
13. I often feel lonely because I have few close friends with whom to share my concerns.
14. I tend to worry about what other people think of me

15. I do not fit very well with the people and the community around me.
16. I think it is important to have new experiences that challenge how you think about yourself and the world
17. My daily activities often seem trivial and unimportant to me.
18. I feel like many of the people I know have gotten more out of life than I have.
19. I enjoy personal and mutual conversations with family members or friends
20. Being happy with myself is more important to me than having others approve of me.
21. I am quite good at managing the many responsibilities of my daily life.
22. When I think about it, I haven't really improved much as a person over the years.
23. I don't have a good sense of what it is I'm trying to accomplish in my life.
24. I like most aspects of my personality.
25. I don't have many people who want to listen when I need to talk
26. I tend to be influenced by people with strong opinions.
27. I often feel overwhelmed by my responsibilities.
28. I have a sense that I have developed a lot as a person over time
29. I used to set goals for myself, but that now seems a waste of time.
30. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.
31. It seems to me that most other people have more friends than I do.
32. I have confidence in my opinions, even if they are contrary to the general consensus
33. I generally do a good job of taking care of my personal finances and affairs
34. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.
35. I enjoy making plans for the future and working to make them a reality
36. In many ways, I feel disappointed about my achievements in my life

37. People would describe me as a giving person, willing to share my time with others.
38. It's difficult for me to voice my own opinions on controversial matters.
39. I am good at juggling my time so that I can fit everything in that needs to be done.
40. For me, life has been a continuous process of learning, changing, and growth.
41. I am an active person in carrying out the plans I set for myself.
42. My attitude about myself is probably not as positive as most people feel about themselves.
43. I have not experienced many warm and trusting relationships with others.
44. I often change my mind about decisions if my friends or family disagree.
45. I have difficulty arranging my life in a way that is satisfying to me.
46. I gave up trying to make big improvements or change in my life a long time ago.
47. Some people wander aimlessly through life, but I am not one of them.
48. The past has its ups and downs, but in general, I wouldn't want to change it.
49. I know that I can trust my friends, and they know they can trust me.
50. I judge myself by what I think is important, not by the values of what others think is important.
51. I have been able to build a home and a lifestyle for myself that is much to my liking.
52. There is truth to the saying that you can't teach an old dog new tricks.
53. I sometimes feel as if I've done all there is to do in life.
54. When I compare myself to friends and acquaintances, it makes me feel good about who I

Appendices F: Sleep Quality Scale

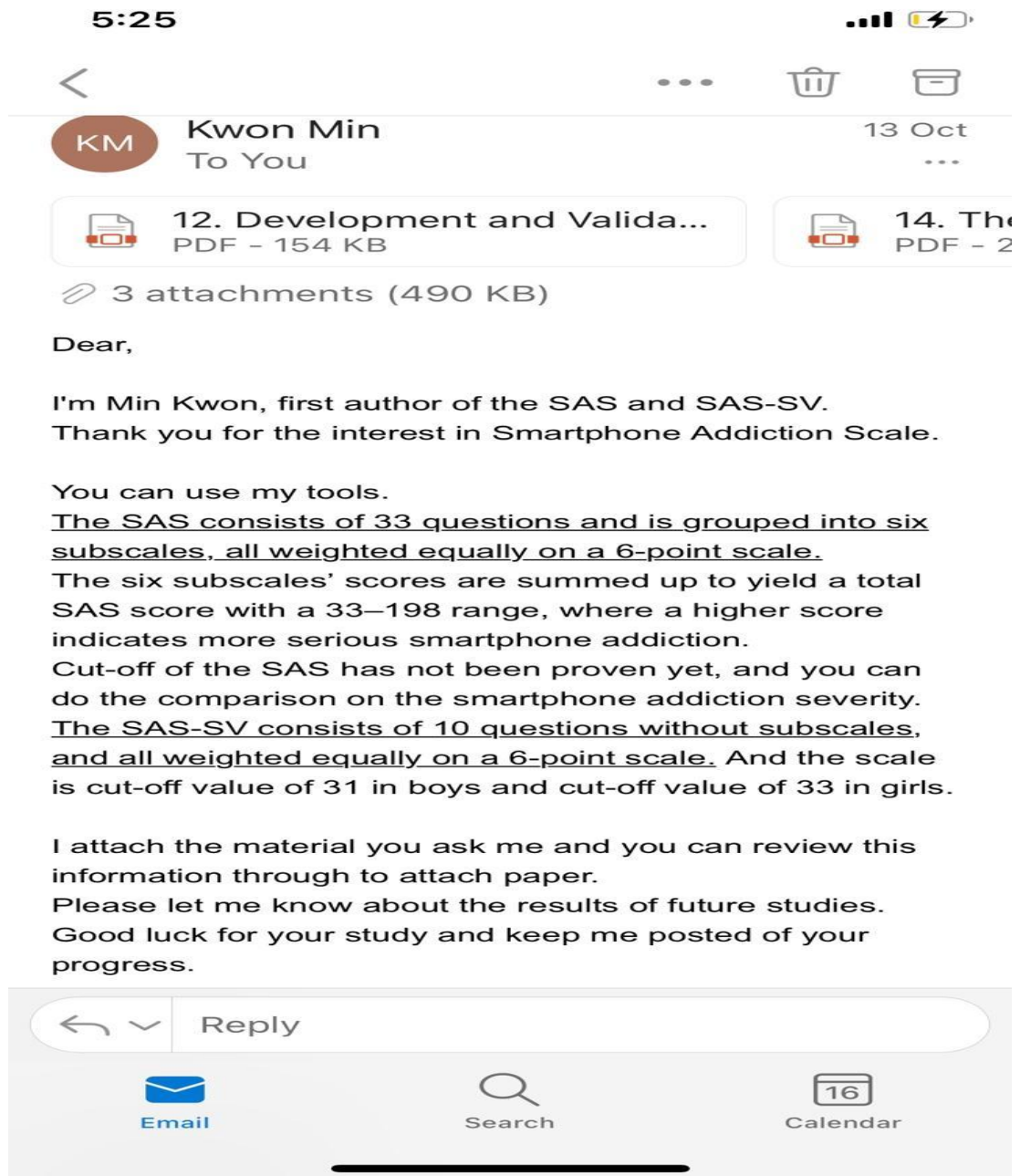
The following survey shows the quality of sleep you have in the last 1 month. Read the question carefully and pick an option. (0 = “few,” 1 = “sometimes,” 2 = “often,” and 3 = “almost always”).

Items 0 1 2 3

1. I have difficulty falling asleep.
2. I fall into a deep sleep.
3. I wake up while sleeping.
4. I have difficulty in falling asleep once I wake up in the middle of the night.
5. I wake up easily because of noise.
6. I toss and turn.
7. I never go back to sleep after awaking during the sleep.
8. I feel refreshed after asleep.
9. I feel unlucky to sleep after asleep.
10. Poor sleep gives me headache.
11. Poor sleep makes me irritated.
12. I would like to sleep more after waking up.
13. My sleep hours are enough.
14. Poor sleep makes me feel I lost my appetite.
15. Poor sleep makes hard for me to think.
16. I feel vigorous after sleep.
17. Poor sleep makes me lose interest in work or others.
18. My fatigue is relived after sleep.

19. Poor sleep cause me to make mistakes at work.
20. I am satisfied with my sleep.
21. Poor sleep makes me forget things easily.
22. Poor sleep makes it hard to concentrate on work.
23. Sleepiness interferes with my daily life.
24. Poor sleep makes me lose desire in all things.
25. I have difficulty getting out of bed.
26. Poor sleep makes me easily tiered at work.
27. I have clear head after sleep.
28. Poor sleep makes my life painful.

Appendices G: Permission Of Scale



Appendix H- Plagiarism Report

Report

ORIGINALITY REPORT

15%	6%	4%	11%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Higher Education Commission Pakistan Student Paper	3%
2	drrajivdesaimd.com Internet Source	2%
3	Submitted to Macquarie University Student Paper	2%
4	Submitted to O. P. Jindal Global University Student Paper	1%
5	Submitted to Hult International Business School, Inc. Student Paper	1%
6	www.ncbi.nlm.nih.gov Internet Source	1%
7	Kavita Gupta, B.S. Parimal. "RELATIONSHIP BETWEEN PERSONALITY DIMENSIONS AND PSYCHOLOGICAL WELL-BEING AMONG UNIVERSITY STUDENTS DURING PANDEMIC LOCKDOWN", Journal of Global Resources, 2020	1%