

SOCIAL MEDIA ADDICTION AS A RISK FACTOR FOR PSYCHOLOGICAL DISTRESS, ANXIETY AND DEPRESSION AMONG ADOLESCENTS



by

Saman Imran

BSP191015

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

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DEDICATION

*I would like to dedicate this dissertation to my parents, **Mr. Imran Javed** and **Mrs. Jamila Imran**, for their love and support throughout my life.*

Thanks to both of you for always encouraging me and supporting me.

Your endless efforts helped me to reach the level of brilliance at which I now stand. Thank you for everything.

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Firstly, I am immensely grateful to Allah Almighty for His assistance throughout this expedition. It was Allah's mercy that made it possible for me to complete this work in the first place. I would like to thank my supervisor Dr. Ishrat Yousaf for the guidance, dedicated support and direction but more importantly for providing timely feedback which had helped me a lot.

I'm thankful to my family for their love, support and care towards me. Their support gave me the courage and motivation to persist and do my best during research. I believe without their support, I wouldn't have achieved this milestone.

I would like to dedicate this dissertation to my best friend Muniba for always listening to me, appreciating me and encouraging me and to my mates Maryam Dawood and Hamna Nadeem for helping me during research.

Lastly, I would acknowledge my own self for not giving up and the perseverance and fulfilling the promise I made to myself.

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.



Saman Imran

Reg. No. BSP191015

January, 2023

CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Social media Addiction as a Risk Factor for Psychological Distress, Anxiety and Depression among Adolescents" carried out by Saman Imran, Reg. No. BSP191015, under the supervision of Dr. Ishrat Yousaf, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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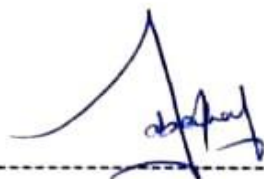
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Social media addiction as a risk factor for psychological distress, anxiety and depression among adolescents

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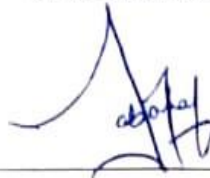
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ABSTRACT

Use of social media is increasing day by day and becoming crucial element of adolescents and young adults. Adolescents are particularly vulnerable to social media addiction due to overly using social media. The purpose of this study was to find out the relationship between social media addiction, psychological distress, anxiety and depression. Social media addiction can be described as being overly concerned about logging onto social media applications and an uncontrollable urge to use it. Furthermore, the study aimed at comparing the gender difference in social media addiction. The sample of the present study consisted of three hundred participants ($N=300$) through convenience sampling. The study was carried out using Social Media Addiction Scale- Student form (SMAS-SF) and Depression Anxiety and Stress Scale (DASS 21). The scales were administered individually and demographic information was obtained. Data was analyzed statistically by employing correlation analysis and independent t-test. Results showed significant positive relationship between social media addiction, psychological distress, anxiety and depression. No significant gender differences were found in social media addiction among male and females. It is concluded that addiction to social media lead to psychological distress, anxiety and depression among adolescents. This study will contribute to the knowledge and will open new avenues for understanding of social media addiction. Future research is recommended on ways to minimize its adverse effects and new interventions to deal with them.

Keywords: *Social media addiction, Psychological distress, Anxiety, Depression, Adolescents*

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
DECLARATION	iv
CERTIFICATE OF APPROVAL.....	v
ABSTRACT.....	vii
LIST OF ABBREVIATIONS.....	xii
INTRODUCTION	1
Literature Review	5
Theoretical Framework	9
<i>Displaced behavior Theory</i>	9
Rationale.....	10
Objectives.....	11
Hypotheses:	11
Chapter 2.....	12
METHODOLOGY	12
Research Design.....	12
Sample.....	12
Sampling technique	12
Instruments	12
<i>Social Media Addiction Scale- Student form (SMAS-SF)</i>	12
<i>Depression, Anxiety and Stress Scale (DASS 21)</i>	13
Inclusion Criteria.....	13

Exclusion Criteria.....	13
Procedure.....	14
Ethical Considerations.....	14
Analysis.....	14
Chapter 3.....	16
RESULTS	16
Demographic Characteristics	16
Reliability Analyses of the Instruments	18
Descriptives Statistics for Social media addiction scale-student form and DASS 21	19
Correlational analysis for scales.....	20
Association of Gender with Social Media Addiction.....	21
Chapter 4.....	22
DISCUSSION.....	22
Conclusion.....	24
Limitations:	25
Implications:.....	25
REFERENCES	26
APPENDICES	39
Approval letter for data collection	39
Permission to use DASS	40
Informed Consent form	41

Demographic Questionnaire.....	42
Social Media Addiction Scale Student Form (SMAS-SF).....	43
DASS 21.....	46
Originality Report	48

LIST OF TABLES

Table 1	16
Table 2	18
Table 3	19
Table 4	20
Table 5	21

LIST OF ABBREVIATIONS

SMASSF	Social Media Addiction Scale student from
DASS 21	Depression, Anxiety and Stress Scale
SMA	Social Media Addiction

Chapter I

INTRODUCTION

Social media use is growing exponentially and it is becoming an inseparable element of people's everyday life especially among adolescents. Adolescents using social media websites including WhatsApp, Facebook, YouTube, Tiktok, and Snapchat and consume handsome amount of time on that yield negative outcomes consequently (Abbasi, 2019). Research shows a strong connection between social media and its adverse effects on mental health like psychological distress, depression and anxiety (Glazzard & Stones, 2016).

Social media is a place where people make their profiles, post their pictures and have interaction with each other (Boyd, 2007). It is a platform acting as a bridge for interpersonal exchange of information and changing the way of communication at personal and professional level. Social media may be defined as "the electronic form of communication whereby individuals build virtual communities for sharing knowledge, ideas, private messages, and other type of content" (Read & Gin, 2015).

Survival in a society requires a human to be able to socialize well, make friends and maintain good communication with one another, for this purpose the usage of social media platforms has increased rapidly (Balteretu, 2010). Moreover, gain of social support (Akhavan, 2014), experience exchange (Dimico, 2008) and recreational activities (Javadinia, 2013) can also be the reasons to use these websites.

Excessive social media use can create problems including sleep problems (Koc & Wolniczak, 2013), low work performance (Xanidis, 2016) and the feelings of anxiety and depression (Elphinston, 2011 & Pantic, 2014).

Social media addiction can be defined as the frequent use of social media resulting in people becoming worried about online activities and having an uncontrollable urge to spend a lot of time on these websites which affects their other important functions of life (Andreassen & Pallesen, 2014 & Hilliard, 2019). It can also be explained as being overly concerned about social media activities and dedicating much of energy to it which disturbs interpersonal relationships, academics and wellbeing of people (Schou & Pallesen, 2014) and spending 8.5 to 21.5 or more hours weekly on social media (Yang & Tung, 2007).

It is also referred as compulsive social media use, problematic social media use and social networking site addiction (Marino, 2018 & Tarafdar, 2020). However, problematic social media use is an umbrella term which includes maladaptive use of social media (e.g cyberbullying).

Adolescence is a period of personality development concerning biological, cognitive and socioeconomic aspect. Erikson (1968) defined Adolescents as the group of people in 12-18 age range. In the period of adolescence, people are prone to develop depressive disorders (Johnson, 2018 & Thapar, 2012). They are at the highest risk of developing mental illnesses as the ratio of mental illness in adolescents is 1 in every 5, reported by National institute of Mental Health.

Studies show that there is an inevitable increase in social media users. Almost all adolescents of ages between 13 to 17 years use some type of social media platform. At present, mostly used applications are YouTube, Instagram, Snapchat and Facebook with the percentage of 85%, 72%, 69% and 51% respectively (Teens, 2018). Since past years, there has been a significant increase in the rate of depression among adolescents (Keyes, 2019) and 56% increase in the rate of suicide is observed from 2007 to 2017 (Curtin, 2019).

Positive correlation has been found between the time consumed by the adolescents on Facebook and depression (Panic, 2012).

Psychological distress, depression and anxiety are the most common problems among adolescents in this era (Mental health foundation, 2018 ; Stansfeld, 2016) and the chances for developing depression are 2.7 times more than nonsocial media users (Chaudry, 2016).

Psychological distress refers to unpleasant feelings and negative emotions that are frequently accompanied by anxiety and with depressive symptoms such as restlessness, loss of interest and feelings of sadness (Ross, 2002). Literature found that psychological distress is not a specific mental health issue (Dhorenwend, 1982).It can also be defined as when individuals experience unpleasant emotional states as a result of being overwhelmed severely affecting daily life activities (Kessler, 1992).

The American Psychological Association (APA) defined anxiety as the state of tension, disturbed or concerned thoughts, frequent overthinking, and physiological changes which involve sweating, elevated blood level and increased heartrate. People with anxiety disorder frequently suffer from the recurring patterns of disruptive thoughts (Association, 2018).

Anxiety often develops during the period of adolescence and prevalence of developing anxiety disorder is 15-20% in a lifetime (Beesdo, 2009), while 5-13% in adolescents below the age of 18 (Moreno et al., 2010). It can range from mild to serious. Anxiety disorder at worsened stage can also lead to heart attack, stroke and diabetes.

Depression is defined as a syndrome that induces negative feelings, thoughts and behavioral states as well as weak reflexes, pettiness and hesitation (Duran, 1999). According to World Health Organization, depression is a mood disorder that upraises with the feelings

of hopelessness, dissatisfaction, losing interest in daily life task, lack of pleasure or enjoyment, worthlessness and poor concentration (WHO, 2017).

Depression is the major and the most serious health problem in this cyber era. According to the WHO, 2016 depression is affecting around 350 million people worldwide. Depression has an immense effect on people daily life and causes a delay in their everyday activities like working, house chores and studying while severe depression may lead to suicide.

Now days, the emergence of depression has been seen in early adolescents. There are number of factors that might contribute to depression and there is a growing interest for the potential effect of social networking sites addiction on mental health (Sidani et al., 2016). Research shows that over usage of social media and perceiving the fascinating life portrayed on it leads to social comparison which increases depression in adolescents (Primack, 2017).

Remarkable increase in the usage of internet has tremendous effect on the psychological research to examine its effect on the emotional states and how it is affecting mental health of people generated more interest in the addictive behavior of people towards social media (Griffith, 1998). Literature confirmed that multiple factors of emotional states including depression, anxiety and stress were associated with social media addiction among adolescents (Kandell, 1998).

Research showed that boys are more likely to become addicted to internet as compared to the girls and gender difference plays a significant role in social media addiction (Jalalinejad, 2012). However, literature is not consistent about the gender difference that exists in social media addiction.

In the past few years, researches proved that excessive usage of social media disturbs a person's life and people around them since they show displaced behavior by spending all their time in using social media instead of interacting with family and friends which in turn raises the levels of stress and loneliness (Nie, 2002). Social media addiction may increase the level of anxiety as well (Egger & Rauterberg, 1996; Yu, 2001). Individuals with stress and anxiety disorder always have difficulty in socializing and interacting with people in a constructive way. These human traits are the important factors and have an important role in determining social media addiction.

Literature Review

Social media is evolving as a new tool and becoming a ubiquitous aspect of this cyber age. According to the statistics, there were 4 billion active social media users till July 2020 (Kemp & Statista, 2020). Through social media people can make new friends, interact with others and retain connections without being physically present there (Cheng, 2020).

People using social media excessively causes a behavioral addiction known as social media addiction. According to the literature, feeling distressed and getting irritated when unable to use social media is referred to as social media addiction (Hou, 2019; Hussain & Starcevic, 2020). Research showed that frequent use of smartphone leads to high usage of social networking sites which is a predictor of social media addiction (Salehan & Negahban, 2013). A study has been found which showed that social media addiction causes social media fatigue which then triggers anxiety and depression (Dhir et al., 2018).

A study was conducted to explore the pros and cons of surfing social media applications on the adolescent's mental health and it showed that the pros include socializing, available opportunities for learning something new and having access to all kind of information about everything while the cons of surfing social networking sites include online

harassment, fatigue, stress, emotional suppression, anxiety and depression (Kaur & Bashir, 2015).

Literature showed that the high usage of social networking sites in adolescents and young adults causes them to suffer from mental problems (Strickland, 2014). Adolescence is a critical time of personality development and chances of developing depression and anxiety are high (Laughlin & King, 2015). Previous studies showed that the adolescents surfing immoderate social media were more likely to experience anxiety and depression (Banjanin, 2015; Farahani, 2011; Pantic et al., 2012). The use of Facebook and Twitter has been linked to higher levels of depression in this age group and it has been suggested that these platforms disturbs the ability to focus on ongoing tasks resulting in increased stress levels (Hearty & Soul, 2016).

Another study was conducted on college students ($N=283$) to investigate the relationship between social media (Facebook) and stress. The findings showed positive relationship between acculturative stress and Facebook (Park, Song & Lee, 2014). Students who excessively use Facebook experience loneliness which might lead to the depression (Lou et al, 2012). Literature showed that adolescents who have poor social relationships are more prone to be addicted to social media (Kirik et al., 2015).

Literature showed that social media addiction, psychological distress, depression and anxiety are positively correlated (Wood & Scott, 2016). A meta-analysis was done including findings of 13 studies and data was extracted through PsycINFO, Medline, and SSCI and CINAHL database. The findings indicated that social media addiction may raise the incidence of sadness, anxiety, and stress (Keles, 2020).

A research has been conducted to investigate the relationship between internet addiction, psychological distress and coping strategies among adolescents (McNicol & Thorsteinsson, 2017). DASS was used to assess psychological distress in this study. The

study confirmed the positive relationship between internet addiction and psychological distress.

Bergen social media addiction scale is the most frequently used scale for assessing social media addiction (Duradoni, 2020). A research on 308 students has been conducted to investigate the relationship between smartphone addiction, social media addiction and psychological distress by using the smartphone application based addiction scale, bergen social media scale (BSMS), and hospital anxiety and depression scale for assessing generalized problematic usage of smartphone, social media and for psychological distress respectively. Positive relationship has been found between the above mentioned variables. Moreover, the results showed that male students are more addicted to social media and have high level of psychological distress as compared to females (Chen et al., 2021).

In previous studies, general health questionnaire which is a 12 items scale (GHQ-12) has been used to measure psychological distress (Hankins, 2008). A cross-sectional study was conducted on 480 adolescents in Nigeria to measure internet addiction and psychological distress and the results showed that the students who are internet addicts have high levels of psychological distress as compared to those who were non addicts (Okwaraji et al., 2015).

Social media addiction is positively correlated with the increase screen time (Chung et al., 2019). A study was done on a large sample of adolescents at national level revealed that 4.5 % of adolescents were at danger of being addicted to social media have low self-esteem and were mostly females (Banyai et al., 2017). Positive correlation has been found between depression and the time consumed by the adolescents on Facebook (Panic et al., 2012).

Participants who used Facebook and the internet more frequently were more likely to exhibit symptoms of major depression (Rosen et al, 2013). Several studies have been conducted and revealed that social media use is linked to anxiety and compulsive behavior. It has been found that new generation (especially the ingeneration and Net Generation) often

check their messages on social media sites all the time (Rosen et al, 2013). Increased social media usage will increase the likelihood of developing social media addiction (Simsek et al., 2019).

A research study was conducted among 300 university students in Turkey by using the online cognitive scale (OCS) and depression, anxiety and stress Scale (DASS) to explore the relationship between internet addiction, depression, anxiety and stress. The result findings after correlational analysis showed positive relationship between the above mentioned variables (Akin & Iskender, 2011). Davila (2012) conducted a study on students and concluded that negative social networking sites interactions are linked with the symptoms of depression.

Literature showed that problematic internet use is linked with negative emotions like depression and anxiety. A sample of 97 university students was selected randomly by completing some questionnaires including Hospital Anxiety and Depression Scale, Internet addiction scales and metacognition Questionnaire. The research revealed positive and significant relationship between problematic internet use, depression and anxiety (Spada et al., 2008).

Some studies found the higher rate of social media addiction in boys (Muller et al., 2017) and some studies found no gender difference in social media addiction (Salehan & Negahban, 2013). A correctional study was done on adolescents to check the gender difference in social media addiction ($N=136$). Social media addiction questionnaire was used to assess social media addiction. It was observed that addiction of social media is high in male students with a mean value of ($M=78.194$) as compared to the females, $M=65.406$ (S & B, 2020).

Another study has been conducted to check the gender differences in social media addiction. For this study, 810 students were selected and the results showed that males were more addicted (Boys= 10.33%, girls= 6.84%) as compared to the females (Vyjayanthi et al., 2015).

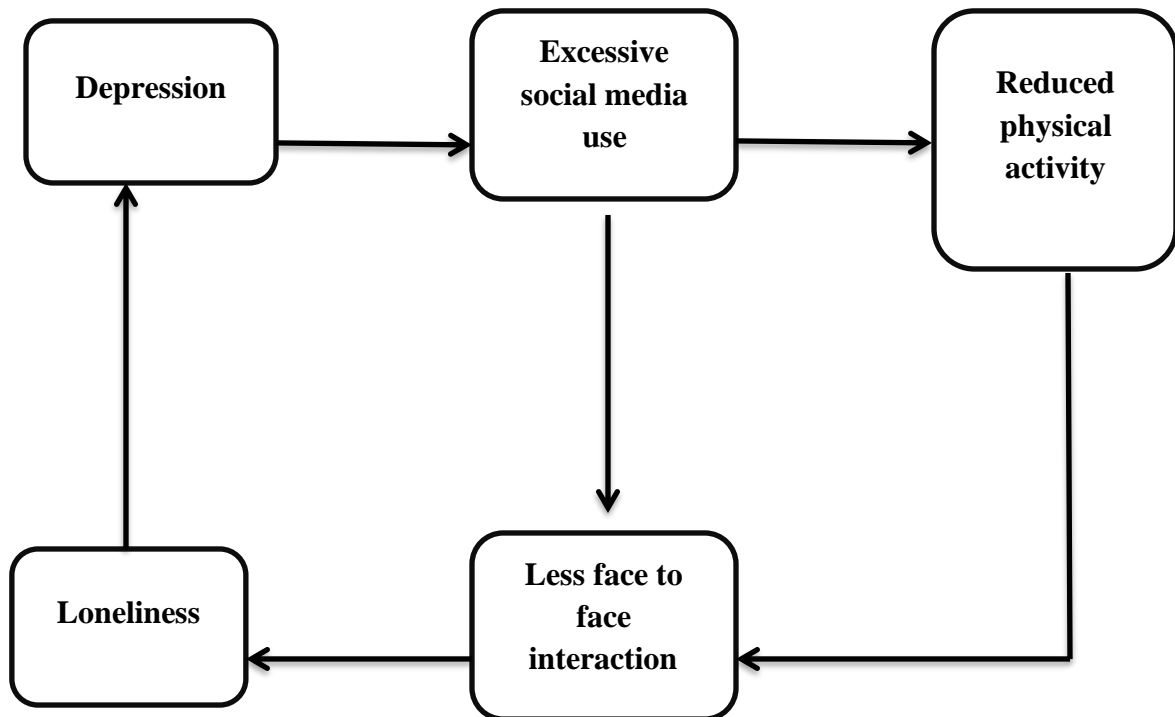
A study has been conducted that showed that the social media addiction, anxiety and depression are positively correlated (Simsek et al., 2019). Another study has been done on national level on young adults and adolescents (N=1749) and it showed that people who are addicted to social media shows higher symptoms of depression (Shensa et al., 2017).

Theoretical Framework

Displaced behavior Theory

The theoretical framework used in this study is “displaced behavior theory” (Martinsen & Teychenne, 2008). According to this theory, when people spend too much time online, they displace their important social and family time, which shrinks their social circles and increases feelings of loneliness and stress (Nie et al., 2000). People with sedentary behavior in which they use excessive social media are known to have minimal face to face interaction and physical activity. When face to face interaction and physical activity is reduced, loneliness will increase which in turn lead to depression and anxiety (Strine et al, 2008).

The conceptual framework of the present study variables is as follows:



Rationale

Few studies have been found on social media addiction and its impact on psychological distress, depression and anxiety among adolescents. Due to scarce research in this area, this study has been conducted on the above mentioned variables among adolescents in Pakistan in quantitative manner. Psychological distress is a non-specific mental disorder (Dhorenwend, 1982) therefore it has been addressed as a separate variable in the current study with anxiety and depression. Previous studies exhibited that addiction of social media is linked with a number of negative outcomes (Spada et al., 2008). In the current research, it is explored that social media addiction is a risk factor for psychological distress, depression and anxiety.

The benefit of conducting this study is to psychoeducate general population and it will attempt to open new avenues of understanding addiction to social media and its hazardous

impacts on adolescent's mental health which lead them to psychological distress, depression and anxiety.

Objectives

- To explore the association between social media addiction, psychological distress, depression and anxiety among adolescents.
- To explore the gender differences in social media addiction among adolescents.

Hypotheses:

1. There is a positive relationship between social media addiction and psychological distress among adolescents.
2. There is a positive relationship between social media addiction and depression among adolescents.
3. There is a positive relationship between social media addiction and anxiety among adolescents.
4. Social media addiction is higher among male adolescents as compared to females.

Chapter 2

METHODOLOGY

Research Design

To conduct this study, a correlational study design was used. The research method of the present study was quantitative.

Sample

The sample consisted of adolescents ($N=300$), both males and females. The selection of participants was from District Rawalpindi (Tehsil GujarKhan) and Islamabad. Their age range was (12-18) years.

Sampling technique

Convenient sampling technique was used for the collection of data.

Instruments

Basic demographic information of all the participants was obtained by asking them to fill out the demographic sheet which included age, gender, socio economic status, education level and the average time they spent on social media daily. The demographic questionnaire was created on the basis of aspects that emerged in the literature as related to social media addiction and depression, anxiety and psychological distress.

Social Media Addiction Scale- Student form (SMAS-SF)

In the present study, Social media addiction scale- student form by Cengiz Sahin, (2018) was used to assess the social media addiction among adolescents. It is a self-report measure consist of a 29 items that measures virtual tolerance, virtual communication, under virtual problem and under virtual information sub dimension.

SMASSF uses a likert response format with a 1(strongly disagree) to 5(strongly agree) response range. A social media addict will lie on the highest score which is 145 while 29 are the lowest score.

The computed Guttman spilt half value was calculated as 0.90, which was quite near to .93 Cronbach Alpha reliability coefficients (Sahin, C., 2018).

Depression, Anxiety and Stress Scale (DASS 21)

In the present study, this scale was used for checking the negative emotional states among adolescents. It has 3 subscales of depression, anxiety and stress, and consists of 21 items in total. These subscales have 7 items each respectively, responses ranges from 0 (never) to 3(always). By summing the score of each item total scores are obtained and then the total score is analyzed as normal to extremely severe (Lovibond and Lovibond, 1995).

Test retest reliability of whole scale was 0.82 with alpha reliability values of 0.87, 0.75 and 0.85 for stress, anxiety and depression respectively (Sarafraz M.R et al, 2019). DASS 21 is also translated in Urdu and showed reliable with alpha value reported as 0.93 overall. The Cronbach's alpha value for stress, anxiety and depression was 0.83, 0.86 and 0.84 respectively (Aslam & Kamal, 2017).

Inclusion Criteria

- Adolescents (both males and females) from Twin cities Rawalpindi and Islamabad, age ranging from 12-18 years were included in the study.
- Participants able to understand English were included in this study.

Exclusion Criteria

- Participants who were mentally or physically disabled were excluded from the study.

Procedure

The sample was selected from schools and colleges in Rawalpindi District and Islamabad. The permission for using the scales was taken from the author. In addition to this, approval from the Capital University of Science and Technology was obtained and after that, participants were explained about the purpose of the research and they were assured about the confidentiality of the shared information. Informed consent was signed and confidentiality and privacy was ensured. A demographic sheet was attached with the questionnaires to obtain relevant data. Participants who were willing to participate were given the two questionnaires including SMAS-SF and DASS-21.

Ethical Considerations

The approval for this study was taken from Psychology Department of Capital University of Science and Technology. Informed consent from participants was obtained and it was made sure that participants would not suffer any physical and emotional harm. All participants were made aware that the investigation was performed in an anonymous manner and that contents of their submissions would remain private.

Analysis

Data was analyzed by using Statistical Package for Social Sciences. The obtained data was cleaned and descriptive statistics were analyzed.

In descriptive statistics, the distribution and variance of the data were calculated. Descriptive analysis for gender, age, education, and average time spent on social media were calculated.

Reliability of the scales was examined through Cronbach's Alpha. The correlation was investigated by using Pearson's correlation analysis because the data was normally

distributed. Independent t-test was also computed to check the gender differences in social media addiction.

Chapter 3

RESULTS

The data was collected through questionnaires filled out by every participant. In this chapter, the frequencies and percentages were computed while demographic information regarding the sample is provided, followed by the reliabilities for all the instruments and descriptive statistics. The analyses used to test the research hypotheses are then presented.

Demographic Characteristics

Table 1

Descriptive Analyses of demographic variables of the study participants (N=300)

<i>Demographic characteristics</i>	<i>Categories</i>	<i>F</i>	<i>%</i>
Age	12-15	135	45
	16-18	165	55
Gender	Female	154	51.3
	Male	146	48.7
Education	18	54	18
	9 th	94	31.3
	10 th	62	20.7
	1 st year	68	22.7
	2 nd year	57	19
Socio-economic status	BS(1 st semester)	19	6.3
	High class	42	14
	Middle class	247	82.3
Average time spent on social	low class	11	3.7
	1-3 hours	92	30

media

3-6 hours	76	25
6-9 hours	75	25
More than 9 hours	57	19

Note: *f*= frequency, %= percentage

Table 1 demonstrates the frequency and the percentages of the demographic variables. There were 146 male (48.7%) and 154 females (51.3%) participants ranging in age between 12- 18 years old. Most of the participants ($N=300$) lie in the age range of 12-15 years (45%). .Majority of the Participants were in 9th class, 94 (31.3%) while participants belong to middle socioeconomic status were high in number, 247 (82.3%) as compared to high,42 (14%) and lower,11 (3.7%) class.

Reliability Analyses of the Instruments

Reliability of the scale and the subscales used in the data was calculated through Cronbach's alpha reliability. Table 2 shows the descriptive of the questionnaires used in the research.

Table 2

Cronbach's Alpha Reliability with Means and Standard Deviations analysis for SMASSF and DASS-21(N=300)

Scales/sub scales	Items	M	SD	A	Range		Skewness	Kurtosis
					Potential	Actual		
SMASSF	29	93.19	20.22	.927	29- 145	46-145	.073	-.629
Depression	7	9.24	5.15	.777	0-21	0-21	.165	-.812
Anxiety	7	10.10	5.30	.802	0-21	0-21	-.085	-.855
Stress	7	10.92	5.33	.809	0-21	0-21	-.029	-1.04

Note: SMASSF=Social media addiction scale-student form, α = Cronbach's Alpha reliability, SD= Standard deviation, M=Mean

Table 2 indicates the reliability coefficients for the Social Media Addiction Scale- Student form (SMASSF, $\alpha = .927$) and the DASS-21 (Depression, $\alpha=.77$, Anxiety, $\alpha=.802$ and Stress, $\alpha=.809$) which shows that instruments had acceptable reliability in this study. Therefore, it is concluded that all the instruments were internally consistent and reliable measures of the constructs.

Descriptives Statistics for Social media addiction scale-student form and DASS 21

The descriptives statistics for SMAFSF and DASS-21 are presented in the following table 3.

Table 3

Descriptive statistics for SMASSF and DASS-21(N=300)

Scales/subscales	M	Mdn	Mode	SD	Skewness	Kurtosis
SMASSF	93.19	92.00	87.00	20.22	.073	-.629
Depression	9.24	9.00	9.00	5.15	.165	-.812
Anxiety	10.10	10.00	9.00	5.30	-.085	-.855
Stress	10.92	10.50	8.00	5.33	-.029	-1.04

Note: SMASSF=Social media addiction scale-student form, M= Mean, Mdn= Median, SD= Standard deviation

Table 3 shows the mean, median, mode and standard deviation of all the scales. The values of skewness and kurtosis in the above mentioned table give details of the normal distribution of data for all the study variables.

Correlational analysis for scales

A correlation analysis was conducted to assess the relationship between social media addiction, depression, psychological distress and anxiety. Pearson correlation was computed as the data was normally distributed.

Table 4

Pearson correlations between measures of Social media addiction and DASS-21 (N=300)

Sr. #	Scales/ Subscales	1	2	3	4
1.	SMASSF	–			
2.	Depression	.587**			
3.	Anxiety	.485**	.713**	–	
4.	Stress	.684**	.718**	.680**	–

Note: SMASSF= Social media addiction scale student form, ** $p < 0.01$, * $p < 0.05$, (1-tailed)

Table 4 indicates the correlation among all the variables. Social media addiction has significant and moderate positive correlation with psychological distress ($r = .684^{**}$, $N = 300$, $p < 0.01$). This entails that the increase social media addiction will increase the level of psychological distress. Social media addiction has significant and moderate positive correlation with anxiety ($r = .485^{**}$, $N = 300$, $p < 0.01$) and depression ($r = .587^{**}$, $N = 300$, $p < 0.01$).

Association of Gender with Social Media Addiction

To study the gender wise difference in SMA, Independent sample t-test was used for the scale due to the normal distribution of the data as shown in the table 5.

Table 5

Mean differences and t-values of social media addiction scale in terms of gender among adolescents (N=300)

Scale	Male		Female		T	P	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
SMASSF	93.50	20.95	92.90	19.56	.253	.801	-4.01	5.19	0.030

Note: SMASSF= Social media addiction scale student form, M= Mean, SD=Standard deviation, P= Significant value, CI= Class Interval, LL=Lower limit, UL=Upper limit **p<0.5, ***p<0.1

Table 5 indicates no significant difference in the mean ranks of Males (93.50) and females (92.90) as the data was normally distributed among male and females.

Chapter 4

DISCUSSION

The study aimed at assessing the social media addiction among adolescents. Additionally, it is also aimed at exploring the gender differences in social media addiction among adolescents. The results of the study and its limitations and implications are discussed in this chapter.

The reliability of the scales was checked by computing the cronbach's alpha reliability. The SMASSF had coefficient of 0.927, the total reliability of DASS- 21 was 0.912 with the alpha reliabilities values of 0.777, 0.82 and 0.809 for depression, anxiety and stress respectively. The social media addiction has not been used on Pakistani sample but in few studies the scale showed high alpha reliability of 0.93. The DASS 21 is the most widely used scale to assess depression, anxiety and stress (Scholten, et al., 2017). In previous studies internal consistency coefficient of DASS ranged from 0.76 to 0.906 (Hong le et al., 2017). It can be concluded that all the scales used in the current study were internally consistent.

Descriptive analysis of demographics revealed that the participants of this study were ranged between ages of 12-18 years among which most of them were in 9th class and belonged to middle socioeconomic status.

Descriptives analysis of the instruments used in this study has revealed some important findings. First, adolescents mean score on the social media addiction (M=93.19, see table 3) indicates high frequency of social media addiction. This mean was higher than some of the men scores reported in previous studies such as 36.47 among a sample of adolescents (Caner et al., 2022). This means that adolescents in the present study are more adversely affected by social media addiction.

The mean score of Depression, Anxiety and Stress Scale (M=9.24, 10.10, 10.92 respectively, see table 3) was similar to as reported in some other studies; M= 9.30, 8.58 and 9.91 among a sample of adolescents (Muhammadzadeh et al., 2019). This shows that DASS 21 is a reliable measure for Depression, anxiety and stress.

Hypothesis one proposed the positive relationship between social media addiction and psychological distress. Correlational analysis of data showed a significant positive relationship between the SMA and psychological distress ($r = 0.684^{**}$, $N=300$, table 4) which showed that addiction of social media in adolescents is a risk factor for psychological distress. These findings are consistent with previous research studies that suggested that social media addiction is positively associated with psychological distress (Sampasa Kanyinga & Lewis, 2015). So, it is concluded that high social media addiction lead to psychological distress among adolescents.

Hypothesis two proposed the positive relationship between social media addiction and depression among adolescents. Correlation analysis of the data revealed a significant and moderate positive correlation ($r=0.587^{**}$, $N=300$, table 4), which indicates that adolescents with high social media addiction are proved to be more prone to depression. Previous studies have showed the similar results and revealed positive correlation of social media addiction with depression (Waqas et al., 2018).

Hypothesis three proposed the positive relationship between social media addiction and anxiety among adolescents. Correlation analysis of the data showed a significant positive relationship between social media addiction and anxiety ($r= 0.485^{**}$, $N=300$, table 4), which indicates that when individuals excessively use social media, they become addicted to it and show high level of anxiety. In this study, DASS 21 is used to measure anxiety while in majority of previous studies Beck Anxiety Inventory (BAI) was used to specifically measure

anxiety (Lodha, 2018). Past research had showed the positive relationship between anxiety and social media addiction among adolescents and young adults' aswell (Nguyen et al., 2020).

To find the gender differences in social media addiction, Independent sample T test was applied. It was hypothesized that the social media addiction is higher in male adolescents than to the females. The results of the current study showed non- significant difference which indicated that SMA in both male and female adolescents students was almost equal with a minimum differences in the mean ranks of $M=93.50$ for male and 92.90 for females respectively (see table 5). This hypothesis is not approved but the results of the present study are consistent with some previous studies which showed non-significant gender difference in social media addiction (Salehan & Negahban, 2013).

Overall, positive correlation between all the variables of the present study showed that social media addiction is a risk factor for psychological distress, anxiety and depression among adolescents. Additionally, further research is required to understand the factors which contribute in developing social media addiction and how the demographic characteristics of participants other than gender differences are related to social media addiction.

Conclusion

As a whole, the hypothesized relationships among social media addiction, psychological distress, anxiety and depression were accepted. SMA had shown positive relationship with psychological distress, depression and anxiety. Despite the fact that the relationships in this study were significant, consequent research with a greater sample is needed. The study can be useful in future when it comes to awareness of the social media addiction and its drastic effects on the mental health of adolescents so that excessive usage of

social media can be controlled and solutions or interventions can be derived to deal psychological problems like anxiety and depression.

Limitations:

Although this study has a lot of beneficial aspects to take account in, however, we can also not ignore the limitations. This research was based on the quantitative analysis which resulted in confined number of sample studied. The data was limited to only the twin cities which cannot be generalized. This makes it as a limitation from the aspect of geographic coverage of data. Secondly, due to shortage of time and coverage area, this study was done on the data from 300 participants only which makes it very limited amount of data to derive results from. Another limitation is that this research is specifically only performed on adolescents from schools and colleges which becomes another parameter for limitation since there is no random data collection.

Implications:

It's crucial to emphasize the risks of social media addiction and how it impacts on the mental health of adolescents. The present study will create awareness about social media addiction and about its hazardous effects among adolescents and to the parent's aswell.

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APPENDICES

Approval letter for data collection



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July 30, 2021

TO WHOM IT MAY CONCERN

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.

Ms. Saman Imran, registration number BSP191015, is a bona fide student in BS Psychology program at this University from 2019 till date. In partial fulfillment of the degree, she is conducting research on "Social media addiction as a risk factor for psychological distress, anxiety and depression among adolescents". She is required to collect data from (e.g., students, managers, supervisors etc.) of your organization. In collecting this data, your cooperation and help is required.

I hope that you will allow her to collect data/information from your organization/ institute. Your cooperation in this regard is highly appreciated. Please feel free to contact undersigned, if you have any query in this regard.

Best Wishes,

Dr. Sabahat Haqqani

Head, Department of Psychology

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Permission to use DASS



Peter Lovibond <p.lovibond@unsw.edu.au>
to me, Uzma.mushtaq@cust.edu.pk ▾

Mon, May 2, 2022, 3:47 AM



Dear Saman,

You are welcome to use the DASS in your research. You can download the questionnaires (including translations in certain languages) and scoring key from the DASS website www.psy.unsw.edu.au/dass/. Please also see the FAQ page on the website for further information.

Best regards,
Peter Lovibond



Informed Consent form

I am Saman Imran, student of Department of Psychology at Capital University of Science and Technology. I'm conducting a research study on "Social media addiction as a risk factor for psychological distress, depression and anxiety among adolescents"

For this purpose, you are required to fill the provided questionnaire. I assure you that any information you give will be kept confidential, and will be only used for research and academic purposes. There is no harm of any kind in this study.

Your participation in the study is voluntary. However, if you feel uncomfortable at any stage, you can withdraw from the study. If you have any query, you can contact me at bsp24680@gmail.com. I will be highly grateful for you participation.

Participant's signature: _____

Date: _____

Demographic Questionnaire

1. **Age:** 12-15/ 16-18
2. **Gender:** Male/ Female
3. **Current Education level:** 9th , 10th , 1st year, 2nd year, BS (1st semester)
4. **Socioeconomic status:** High, Middle, low
5. **Average time spent on social media**

WhatsApp (on daily basis): _____ hours: _____ minutes

Instagram (on daily basis): _____ hours: _____ minutes

Snapchat (on daily basis): _____ hours: _____ minutes

Facebook (on daily basis): _____ hours: _____ minutes

Tiktok (on daily basis): _____ hours: _____ minutes

Others (on daily basis): _____ hours: _____ minutes

Social Media Addiction Scale Student Form (SMAS-SF)

After reading the statement, mark your response.

<p>EXPLANATION: Different states related to social media use on the internet are given below. You are asked to read each expression carefully and put (X) for the expression you deem the most correct for you. Do not skip any item and mark each state please.</p>		<ul style="list-style-type: none"> ▪ Strongly disagree ▪ Disagree ▪ Neither agree nor disagree ▪ Agree ▪ Strongly agree 				
1	I am eager to go on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
2	I look for internet connectivity everywhere so as to go on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
3	Going on social media is the first thing I do when I wake up in the morning.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
4	I see social media as an escape from the real world.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
5	A life without social media becomes meaningless for me.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
6	I prefer to use social media even there are somebody around me.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
7	I prefer the friendships on social media to the friendships in the real life.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

8	I express myself better to the people with whom I get in contact on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
9	I am as I want to seem on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
10	I usually prefer to communicate with people via social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
11	Even my family frown upon, I cannot give up using social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
12	I want to spend time on social media when I am alone.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
13	I prefer virtual communication on social media to going out.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
14	Social media activities lay hold on my everyday life.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
15	I pass over my homework because I spend much time on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
16	I feel bad if I am obliged to decrease the time I spend on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
17	I feel unhappy when I am not on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
18	Being on social media excites me.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
19	I use social media so frequently that I fall afoul of my family.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
20	The mysterious world of social media always captivates me.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
21	I don't even notice if I am hungry or	Strongly disagree	Disagree	Neither agree	Agree	Strongly agree

	thirsty when I'm on social media			nor disagree		
22	I notice that my productivity has diminished due to social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
23	I have physical problems because of social media use.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
24	I use social media even when walking on the road in order to be instantly informed about developments.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
25	I like using social media to keep informed about what happens.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
26	I surf on social media to keep informed about what social media groups share.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
27	I spend more time on social media to see some special announcements (e.g. birthdays).	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
28	Keeping informed about the things related to my courses (e.g. homework, activities) makes me always stay on social media.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
29	I am always active on social media to be instantly informed about what my kith and kin share.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

DASS 21

DASS 21 Name:

Date:

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There is no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree or a good part of time

3 Applied to me very much or most of the time

1 (s)	I found it hard to wind down	0	1	2	3
2 (a)	I was aware of dryness of my mouth	0	1	2	3
3 (d)	I couldn't seem to experience any positive feeling at all	0	1	2	3
4 (a)	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 (d)	I found it difficult to work up the initiative to do things	0	1	2	3
6 (s)	I tended to over-react to situations	0	1	2	3
7 (a)	I experienced trembling (e.g. in the hands)	0	1	2	3
8 (s)	I felt that I was using a lot of nervous energy	0	1	2	3
9 (a)	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 (d)	I felt that I had nothing to look forward to	0	1	2	3
11 (s)	I found myself getting agitated	0	1	2	3
12 (s)	I found it difficult to relax	0	1	2	3
13 (d)	I felt down-hearted and blue	0	1	2	3
14 (s)	I was intolerant of anything that kept me from getting on with what was doing	0	1	2	3
15 (a)	I felt I was close to panic	0	1	2	3
16 (d)	I was unable to become enthusiastic about anything	0	1	2	3

17 (d)	I felt I wasn't worth much as a person	0	1	2	3
18 (s)	I felt that I was rather touchy	0	1	2	3
19 (a)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
20 (a)	I felt scared without any good reason	0	1	2	3
21 (d)	I felt that life was meaningless	0	1	2	3

Originality Report

report

ORIGINALITY REPORT

13%	9%	9%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.ncbi.nlm.nih.gov Internet Source	1%
2	Submitted to Higher Education Commission Pakistan Student Paper	1%
3	thesis.miuc.ac.ke Internet Source	1%
4	irep.ntu.ac.uk Internet Source	1%
5	www.researchgate.net Internet Source	<1%
6	www.tojet.net Internet Source	<1%
7	Submitted to iGroup Student Paper	<1%
8	philpapers.org Internet Source	<1%
9	Kagan Kircaburun, Saleem Alhabash, Şule Betül Tosuntaş, Mark D. Griffiths. "Uses and	<1%