

Impact of Social Media Usage on Psychological Wellbeing of Undergraduates at a Selected State University of Sri Lanka: The Mediating Role of Smartphone Addiction

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Abstract: The purpose of this study was to investigate the impact of social media usage on psychological wellbeing of undergraduates at a selected State University in Sri Lanka with the mediating role of smartphone addiction. To achieve this purpose, the researchers established three basic questions. Those are to investigate the impact of social media usage on psychological wellbeing, the impact of social media usage on smartphone addiction, and the impact of smartphone addiction on psychological wellbeing of undergraduates at the selected State University. Data was collected using structured questionnaire from 368 undergraduates within six faculties at the University by using Stratified sampling method, through Morgan Table. Quantitative research approach was used for this study. The data were analyzed using reliability analysis, validity analysis, descriptive statistics, correlation, and regression analysis. According to the study findings, all proposed hypotheses were supported. The result of the study revealed that Social Media Usage has a negative impact ($R = -.167$) on psychological well-being, but this negative impact increased with Smartphone Addiction. The study findings would benefit university students, university administration and academic staff, and the government. Further, it was recommended that undergraduates should have self-control when using their social media and avoid smartphone addiction as well as take responsibility for their psychological well-being.

Keywords: *Psychological Well-Being, Smartphone Addiction, Social Media Usage*

Introduction

In the era of technological advancements, social media has become an integral part of the daily lives of individuals, particularly among the younger generation (Ali et al., 2021). The rise of social media platforms and the widespread use of smartphones have transformed the way people communicate, connect, and share information. Social media can improve social interactions and give people a place to express themselves, but there have also been worries expressed about its possible harmful impacts on psychological health, among university students (Kross, 2013). Therefore, understanding the impact of social media use on the psychological well-being of undergraduates is crucial to developing effective strategies and

interventions that can promote their mental health.

There is not much study that specifically focuses on undergraduates at the University of Sri Lanka, despite the expanding amount of literature examining the link between social media use and psychological well-being. Therefore, it is crucial to fill this gap and look at the specific impacts of social media use on the psychological health of Sri Lankan undergraduates given the distinct cultural context and the rising prevalence of social media use among them. Furthermore, whereas earlier research has looked at the link between social media use and psychological health, very few have looked into the mediating function that



smartphone addiction plays in this relationship. Therefore, this study tries to fill this gap by exploring the mediating role of smartphone addiction in the relationship between social media use and psychological well-being among undergraduates at a university.

In this research, focus on three main factors. They are the use of social media, smartphone addiction, and psychological well-being and that will be the subject of this study. Social media use refers to the frequency and intensity of an individual's engagement with social media platforms, including activities such as posting, liking, and commenting (Boyd & Ellison, 2007). Smartphone addiction refers to “an individual's excessive use of a smartphone and its negative effects on his/her life as a result of his/her inability to control his behaviour” (Gökçearslan et al., 2018). Regardless of its form, smartphone addiction results in social, medical, and psychological harm to people by limiting their ability to make their own choices (Chotpitayasunondh & Douglas, 2016). The rapid advancement of information and communication technologies has led to the concept of social media, e-games, and also to smartphone addiction. People who are addicted to smartphones tend to use their phones excessively for social media, entertainment (viewing videos and listening to music), and playing online games. In fact, previous studies have evidenced the relationship between social media use and smartphone addiction (Jeong, 2016; Swar & Hameed, 2017). There are only few information about the way smartphone addiction mediates the relationship between psychological well-being and social media use. Psychological well-being encompasses various dimensions of an individual's mental state, including their levels of happiness, life satisfaction, self-esteem, and overall psychological functioning (Ryff, 1989).

By exploring the mediating role of smartphone addiction in this relationship, the study will contribute to a better understanding of the complex dynamics between social media use, smartphone addiction, and psychological well-being. The findings of this research will have practical implications for the development of targeted interventions and educational programs to promote healthy social media use and enhance the psychological well-being of undergraduates at A selected State University and similar academic institutions.

Therefore, this research is necessary to address the existing research gap on the impact of social media use on the psychological well-being of undergraduates at a selected State University in Sri Lanka with the mediating role of smartphone addiction. And also, to get a better understanding of the complex dynamics between social media use, smartphone addiction, and psychological well-being and gather comprehensive knowledge regarding this area.

Literature Review

In the study conducted by Aditya (2022), on the topic of “The Impact of Social Media Usage on Personality and Psychological Well-being of Young Adults” has been found that there is a negative relationship between social media usage and psychological well-being. And also, found that there is no significant mean difference between males and females in social media usage. 106 participants from the general population were taken as sample in their research and they ranged from 18 -25 years.

Furthermore, the research on “Social Media and Mental Health” conducted by Luca et al. (2022) reveals noteworthy findings that contribute to the understanding of the impact of social

media on mental health. The sample for this study has been obtained from the population of 775 colleges in the US. They found that the introduction of Facebook at a college had a negative effect on student mental health. They also found that, after the introduction of Facebook, students were more likely to report that poor mental health negatively affected their academic performance.

And also, the research conducted by Dragana et al. (2021) offers a comprehensive analysis of “Effects of Social Media Use on Psychological Well-Being: A Mediated Model”, with findings that highlight key aspects. In their study found that there is a negative impact of social media use on psychological well-being. And also, smartphone addiction has a negative significant influence on psychological well-being. The sample in this research was 940 social media users from Mexico.

Moreover, the findings of Woods and Scotts’ research conducted in (2016) provide valuable insights into the subject matter of “Sleepy teens: social media use in adolescence is associated with poor sleep quality, anxiety, depression, and low self-esteem”. In this research, the sample was 467 pupils in secondary school in Glasgow (UK) aged 11-17 years. According to the Woods and Scott (2016), higher levels of social media use were associated with poorer sleep quality, lower self-esteem and increased anxiety and depression. In addition, their findings indicated that nighttime-specific social media use and emotional investment in social media were both associated with poorer sleep quality, lower self-esteem and higher anxiety and depression levels. Nighttime-specific social media use predicted poorer sleep quality, controlling for anxiety, depression, and self-esteem. According to the research conducted by Upadhyay (2018) to analyse “Social Media Usage and Psychological Wellbeing among Indian Youth”, has been

found that there is no significant correlation between social media usage and anxiety, depression mood, general health or vitality. But there is a significant negative correlation between social media usage and wellbeing, and self-control. In this study, the sample consisted of 50 Indian college students between 18-21 years of age.

On the other hand, some researchers have stated the opposite side of the above findings. In the study conducted by Monika and Gautam (2023), on the topic of “The Impact of Social Media Use towards the Psychological Well-Being of University Students” has been found that social media marketing use has a favourable indirect effect on mental health, most likely as a result of the benefits gained from increased social capital through connecting and bridging. 433 social media users who are students from the Delhi/National Capital Region were taken as samples in their research.

Furthermore, In the research of “Social Media Usage and Students’ Psychological Well-being: An Empirical Analysis of District Mirpur, AJ&K, Pakistan” conducted by Saira et al. (2021) reveals noteworthy findings that contribute to the understanding of the relationship of social media usage on student’s psychological well-being. In this study, reveals that there is a positive relationship between usage of social media and psychological well-being among undergraduate students. The sample of this study has been composed of one thousand undergraduate students (five hundred males and five hundred females) from different government institutions. And also, some researchers have stated that there are both positive impact as well as negative impacts in their research studies.

According to the research conducted by Hassan and Farin (2020), offers a comprehensive analysis of “Investigating the role of social media on mental health”,

with findings that highlight key aspects. The findings of their study on the role of social media on mental health, show that these media have positive and negative effects on mental health. The Negative effects included anxiety, depression, loneliness, poor sleep quality, poor mental health indicators, thoughts of self-harm and suicide, increased levels of psychological distress, cyberbullying, body image dissatisfaction, fear of missing out, and decreased life satisfaction. On the other hand, positive effects included accessing other people's health experiences and expert health information, managing depression, emotional support and community building, expanding and strengthening offline networks and interactions, self-expression and self-identity, and establish and maintain relationships.

And also, study conducted by Jamal (2015), on the topic of "Dimensions of social media addiction among university students in Kuwait" found that the amount of time spent using social media and satisfaction with social media was positively related to the users' experience with social media. In addition, it has been stated that social media addiction was a negative predictor of academic performance as measured by a student's GPA. 1327 undergraduate students in a state university in Kuwait were taken as the sample in this research.

Grounded on the above literature, this study proposes the following hypothesis:

H1: There is a significant negative impact of social media use on the psychological well-being of undergraduates at the selected State University.

According to the research conducted by Mengistu et al. (2023) to analyse "Problematic smartphone and social media use among undergraduate students during the COVID-19 pandemic", has been found that there is a positive

relationship between social media usage and smartphone addiction. In addition to this, they have found that being female, first-year students, and poor sleep quality were significantly associated with problematic smartphone use. In this study, the sample consisted of 1,232 university students in southern Ethiopia. In the study conducted by Dragana et al. (2021), on the "effects of social media use on psychological well-being" has been found that there is a positive and significant effect of social media use on smartphone addiction. 940 social media users from Mexico were taken as samples in their research.

Furthermore, in the research on "the relationships among social media intensity, smartphone addiction, and subjective well-being of Turkish college students" conducted by Koc and Turan (2020) reveals noteworthy findings that contribute to understanding the impact of social media usage and smartphone addiction. The sample for this study has been obtained from the population of 734 undergraduate Business School in Turkish. They found that high social networking site intensity is associated with high levels of smartphone usage, which decreases the individuals' level of subjective well-being. And also, it is proven that low self-esteem causes smartphone addiction.

Thus, based on the literature cited above, this study proposes the following hypothesis:

H2: There is a positive impact of social media use on smartphone addiction of undergraduates at the selected State University.

In the study conducted by Kokkaparambil and Gautam (2023), on the topic of "The Impact of Smartphone Addiction on Sleep Quality and Psychological Well-being among Young Adults" has been found that there is a negative relationship between

smartphone addiction and sleep quality, smartphone addiction and psychological wellbeing. A sample of 180 married individuals in India between the age group of 18-40 was taken for the study.

Moreover, the findings of Horwood and Anglim's research conducted in 2019 provide valuable insights into the subject matter of "Problematic smartphone usage and subjective and psychological well-being". In this research, the sample consisted of 539 participants from Australian adults. According to the Horwood and Anglim (2019), higher levels of social media use were associated with anxiety, negative emotions, and a lack of control, combined with a tendency to engage in maladaptive coping and compulsive behaviour. In addition, their findings indicated that problematic smartphone usage was correlated with lower well-being on almost all scales such as, negative affect, autonomy, and environmental mastery had the largest negative correlations with problematic smartphone usage.

According to the research conducted by Kumcağız and Gündüz (2016) to analyse the "relationship between psychological well-being and smartphone addiction of university students", has been found that there is a negative relationship between smartphone addiction and psychological wellbeing. And also, the researchers furthermore have identified that gender, grade, parental attitudes, economic status of the family, and level of perception are affected university students' levels of psychological well-being and smartphone addiction. In this study, the sample consisted of 408 students (303 female and 105 male) at the departments of Primary Education, Science Teaching, Art and Crafts Teaching, French Teaching, and Guidance and Psychological Counselling at the Faculty of Education, Ondokuz Mayıs University. In line with this, the following hypothesis is proposed:

H3: There is a negative impact of smartphone addiction on psychological well-being of undergraduates at the selected State University.

According to the research conducted by Kiran et al. (2023) on "the Impact of Social Media use towards the Psychological Well-Being of University Students" has been used smartphone addiction as a mediating variable and has found that there is a positive relationship between social media usage and smartphone addiction. And also, there is a negative relationship between psychological well-being and smartphone addiction. In this study, the sample consisted of 433 social media users who are students from the Delhi/National Capital Region. Moreover, the findings of Dragana et al's research conducted in 2021 provide valuable insights into the subject matter of "Effects of Social Media Use on Psychological Well-Being". According to Dragana et al. (2021), smartphone addiction mediates the relationship between social media usage and psychological well-being. This research also has found that there is a positive relationship between social media usage and smartphone addiction. And also, there is a negative relationship between psychological well-being and smartphone addiction. Data were collected from 940 social media users from Mexico. Therefore, based on the above discussion, this study proposes the following hypothesis:

H4: Smartphone addiction mediates the relationship between social media use and psychological well-being of undergraduates at the selected State University.

Research Methodology

Philosophical assumptions behind the study

This study is grounded in a positivist philosophical paradigm, which assumes

that reality is objective, observable, and measurable. From an ontological perspective, it views social phenomena such as social media usage, smartphone addiction, and psychological well-being as existing independently of personal perceptions and capable of being quantified. In terms of epistemology, the study adopts a positivist stance, where knowledge is derived from empirical observation and statistical analysis rather than subjective interpretation (Saunders et al., 2019). This aligns with the study's objective to test relationships and determine the mediating role of smartphone addiction using measurable data.

Research approach

A quantitative research approach was adopted, as it facilitates the collection of numerical data and allows for the statistical testing of hypotheses (Creswell, 2014). The study employed a survey strategy, which is suitable for gathering standardized information from a large sample in a cost-effective and efficient manner (Bryman & Bell, 2015).

Instruments used for collecting data

Data were collected using a structured, self-administered questionnaire, which was developed based on validated measurement scales from previous

research. The questionnaire consisted of four parts:

1. Demographic Information – Age, gender, academic year, and faculty.
2. Social Media Usage – standard questionnaire developed by Senarath et al., (2023) was used to measure social media usage focusing on variables such as Time spent, Unique Motives, Addiction, frequency of Usage.
3. Smartphone Addiction – standard questionnaire developed by Toshitaka et al., (2023) was used to measure Smartphone Addiction focusing on variables such as Daily-life Disturbance, Positive Anticipation, Withdrawal, Cyberspace Oriented Relationship, overuse & Tolerance.
4. Psychological Well-being – standard questionnaire developed by Ryff & Keyes (1995) was used to measure Psychological Well-being, focusing on variables such as autonomy, Environment Mastery, personal Growth, Positive Relations with other, purpose in life and self-Acceptance.

Each construct was measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

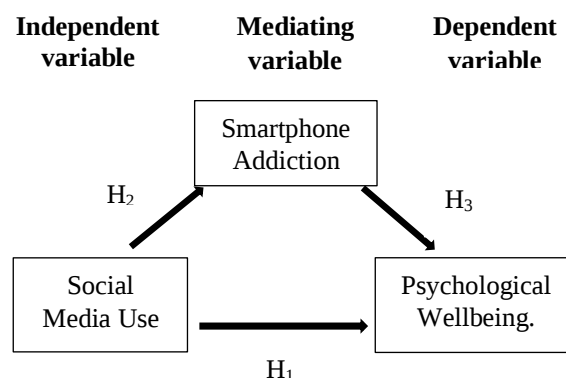


Figure 1: Conceptual Framework

Source: Author constructed, 2023

Population

The study population was identified as the undergraduates of the selected State

University. Six faculties are listed below, along with the number of students in each.

Table 1: Composition of Population

Faculty	Number of students
Agriculture	709
Applied Sciences	1114
Management Studies	1961
Medicine & Allied Sciences	1131
Social Sciences & Humanities	1929
Technology	1525
Total	8369

Source: Students' registration Department, 2022

Analysis and Results

Demographics of Respondents

For this study, total population was 8369 undergraduates at the selected State University sample was selected by using Stratified sampling technique. A total of

368 questionnaires were distributed among undergraduates in out of which 347 were returned resulting in the 94.29 % of response rate which is considered highly adequate.

Table 2: Demographic Profile of Undergraduates

Variable		No. of Respondents	Percentage (%)
Gender	Male	137	39.5%
	Female	210	60.5%
Faculty	Agriculture	23	6.6%
	Applied Sciences	52	15.0%
	Management Studies	84	24.2%
	Medicine and Allied Science	39	11.2%
	Social Sciences & Humanities	83	23.9%
	Technology	66	19.0%
Academic year	2021/2022	103	29.7%
	2020/2021	70	20.2%
	2019/2020	95	27.4%
	2018/2019	79	22.8%

Source: Survey data (2023)

Out of 347 participants of this study, 39.5% are male participants and 60.5% are female. Accordingly, six faculties of the university responded as 6.6% from Faculty of Agriculture, 15% from Faculty of Applied Science, 24.2% from Faculty of Management Studies, 11.2% from Medical and Allied Science, 23.9% from Faculty of Social Science and Humanities, and 19% from Faculty of Technology. The majority of the participants of this study were in 2021/2022 academic year students which are 29.7% as a percentage of the total participants.

Validity and Reliability

A standard questionnaire developed by Ryff et al. (2010) was used to measure psychological wellbeing, standard questionnaire developed by Senarath et al. (2023) was used to measure social media usage, And standard questionnaire developed by Toshitaka et al. (2023) was used to measure smart phone addiction.

The summary of reliability statistics analysis for the independent variable (Social media usage), dependent variable (Psychological wellbeing) and mediating variable (Smartphone addiction) are as follow.

Table 3: Reliability Analysis

Variables	Cronbach's Alpha	No. of Questions
Psychological Wellbeing	0.883	18
Social Media Usage	0.702	14
Smartphone Addiction	0.840	10

Source: Survey data (2023)

The table 3 displays the reliability results for each variable. According to the table, Cronbach's alpha value of all variables ranged from 0.702 to 0.883, indicating that it meets the relevant accepted level of reliability. Therefore, all of the questions used to assess independent, dependent and mediating variables were internally consistent.

Correlation Analysis

According to the table 4, the Pearson correlation value for Psychological Wellbeing to Social Media Usage was -0.167, indicating a weak negative

correlation between the variables. And, there is a weak negative correlation between Psychological Wellbeing and Smartphone addiction with -0.436 Pearson correlation value. On the other hand, there is a moderate positive correlation between Social Media Usage and Smartphone addiction, with a Pearson correlation value of 0.517. This suggests that higher levels of Social Media Usage are associated with higher levels of Smartphone addiction. The significant values are 0.000 ($P < 0.01$), indicating that each variable is significant at the 0.01 level.

Table 4: Correlations Table

		PW	SMU	SA
PW	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	347		
SMU	Pearson Correlation	-.167**	1	

	Sig. (2-tailed)	.002		
	N	347	347	
SA	Pearson Correlation	-.436**	.517**	1
	Sig. (2-tailed)	.000	.000	
	N	347	347	347

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data (2023)

Regression Analysis

Stepwise regression analysis was conducted to test the hypotheses and this

analysis was used to explain how independent variables contribute to vitiate the dependent variable and this analysis show the overall fit of the model.

Effect of Social Media Usage on Psychological Wellbeing

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.167 ^a	.028	.025	1.08714

a. Predictors: (Constant), SMU

Source: Survey Data (2023)

According to the table 5, model's R squared value is 0.028. It indicates that approximately 2.8% of the variance in Psychological Wellbeing is explained by

the predictors and remaining 97.2% of the variance in Psychological Wellbeing is explained by the other factors which are beyond in the study.

Table 6: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.644	1	11.644	9.852	.002 ^b
	Residual	407.747	345	1.182		
	Total	419.391	346			

a. Dependent Variable: PW

b. Predictors: (Constant), SMU

Source: Survey Data (2023)

According to the above ANOVA table 6, F value is 9.852 and significant value is 0.002 ($P < 0.01$). It is represented that there

is low relationship between independent variables and the dependent variables.

Table 7: Coefficient Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.610	.479		9.631	.000
	SMU	-.438	.140	-.167	-3.139	.002

a. Dependent Variable: PW

Source: Survey Data (2023)

The regression coefficient of Social Media Usage indicates that it has a negative impact on Psychological Wellbeing ($\beta = -$

0.438, $p < 0.05$). That means if increase the Social Media Usage will cause to reduce the Psychological Wellbeing.

Effect of Social Media Usage on Smartphone Addiction.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517 ^a	.267	.265	.64066

a. Predictors: (Constant), SMU

Source: Survey Data (2023)

According to the table 8, model's R squared value is 0.267. It indicates that approximately 26.7% of the variance in Smartphone Addiction is explained by the

predictors and remaining 73.3% of the variance in Smartphone Addiction is explained by the other factors which are beyond in the study.

Table 9: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.565	1	51.565	125.634	.000 ^b
	Residual	141.603	345	.410		
	Total	193.168	346			

a. Dependent Variable: SA

b. Predictors: (Constant), SMU

Source: Survey Data (2023)

According to the above ANOVA table 9, F value is 125.634 and significant value is 0.000 ($P < 0.01$). It is represented that there

is low relationship between Social Media Usage and Smartphone Addiction.

Table 10: Coefficient Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.297	.282		4.597	.000
	SMU	.922	.082	.517	11.209	.000

a. Dependent Variable: SA

Source: Survey Data (2023)

The regression coefficient of Social Media Usage indicates that it has a positive impact on Smartphone Addiction ($\beta =$

0.922, $p < 0.05$). That means if increase the Social Media Usage will cause to increase the Smartphone Addiction.

Effect of Smartphone Addiction on Psychological Wellbeing

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.436 ^a	.190	.188	.99219

a. Predictors: (Constant), SA

Source: Survey Data (2023)

According to the table 11, model's R squared value is 0.190. It indicates that approximately 19% of the variance in Psychological Wellbeing is explained by

the predictors and remaining 81% of the variance in Psychological Wellbeing is explained by the other factors which are beyond in the study.

Table 12: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	79.759	1	79.759	81.019	.000 ^b
	Residual	339.632	345	.984		
	Total	419.391	346			

a. Dependent Variable: PW

b. Predictors: (Constant), SA

Source: Survey Data (2023)

According to the above ANOVA table 12, F value is 81.019 and significant value is 0.000 ($P < 0.01$). It is represented

that there is high relationship between Smartphone Addiction and Psychological Wellbeing.

Table 13: Coefficient Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.968	.321		18.590	.000
	SA	-.643	.071	-.436	-9.001	.000

a. Dependent Variable: PW

Source: Survey Data (2023)

The regression coefficient of Smartphone Addiction indicates that it has a negative impact on Psychological Wellbeing ($\beta = -0.643$, $p < 0.05$). That means if increase the

Smartphone Addiction will cause to decrease the Psychological Wellbeing of undergraduates.

The indirect effect of Social Media Usage on Psychological Wellbeing through Smartphone Addiction

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441 ^a	.195	.190	.99074

a. Predictors: (Constant), SA, SMU

Source: Survey Data (2023)

As per the results of above table 14, the R value shows the simple correlation and it is 0.441. The model's R squared value is 0.195. And, it indicates that approximately 19.5% of the variance in Psychological

Wellbeing is explained by the predictors and remaining 80.5% of the variance in Psychological Wellbeing is explained by the other factors which are beyond in the study.

Table 15: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.730	2	40.865	41.632	.000 ^b
	Residual	337.661	344	.982		
	Total	419.391	346			

a. Dependent Variable: PW

b. Predictors: (Constant), SA, SMU

Source: Survey Data (2023)

According to the above ANOVA table 15, F value is 41.632 and significant value is

0.000 ($P < 0.001$). It is represented that Social Media Usage through Smartphone

Addiction is significantly related to the Psychological Wellbeing.

The mediating effect of Smartphone Addiction between Social Media Usage and Psychological Wellbeing.

The mediating effect was analyzed by using PROCESS v4.2 in SPSS. In here,

Psychological Wellbeing was selected as dependent variable, Social Media Usage was selected as independent variable and Smartphone Addiction was entered as mediating variable for the purpose of identifying the mediating effect of Smartphone Addiction.

Table 16: Coefficient Table

	Coeff	se	t	p	LLCI	ULCI	constant	5.5221	.4494	12.2880
.0000	4.6382	6.4060								
SMU	.2104	.1485	1.4169	.1574	.1574	-.0817	.5025			
SA	-.7035	.0833	-8.4499	.0000	-.8673	-.539				

Source: Survey Data (2023)

Table 17: Summary of the effect

Total effect of SMU on PW (a)

Effect	se	t	p	LLCI	ULCI	c_cs
-.4379	.1395	-3.1388	.0018	-.7123	-.1635	-.1666

Direct effect of SMU on PW (b)

Effect	se	t	p	LLCI	ULCI	c'_cs
.2104	.1485	1.4169	.1574	-.0817	.5025	.0801

Indirect effect(s) of SMU on PW:(a*b)

	Effect	BootSE	BootLLCI	BootULCI
SA	-.6483	.0987	-.8569	-.4672

Completely standardized indirect effect(s) of SMU on PW:

Effect	BootSE	BootLLCI	BootULCI	
SA	-.2467	.0369	-.3220	-.1793

Source: Survey Data (2023)

The study assessed the mediating role of Smartphone Addiction on the relationship between Social Media Usage and Psychological Wellbeing. The results revealed a significant indirect effect of Social Media Usage on Psychological Well-being ($b = -0.6483$), supporting H4. Furthermore, the direct effect of Social Media Usage on Psychological Well-being in presence of the mediator was insignificant because $p > 0.05$ ($b = 0.2104$, $p = 0.1574$). Hence, Smartphone Addiction is fully mediate the relationship between Social Media Usage on Psychological Wellbeing.

Testing Hypothesis 1

There is a significant negative impact of social media usage on psychological wellbeing of undergraduates at the selected State University.

According to the correlation table 4, correlation coefficient value of social media usage on psychological wellbeing was -0.167 and correlation significant value is 0.002 . It is less than 0.01 ($p < 0.05$). Significant value of the Regression 0.002 ($p < 0.05$). It indicates that there is a very low (weak) negative

correlation between social media usage and psychological wellbeing. And according to the regression analysis, strength of the impact of social media usage on psychological wellbeing is 0.028.

Therefore, it can be concluded that there is enough evidence to say that, there is a low negative impact of social media usage on psychological wellbeing of undergraduates.

Testing Hypothesis 2

There is a positive impact of social media usage on smartphone addiction of undergraduates at the selected State University.

In the correlation table 4, correlation coefficient value of social media usage on smartphone addiction was 0.517 and correlation significant value is 0.000. It is less than 0.01 ($p < 0.05$). Significant value of the Regression 0.000 ($p < 0.05$). It indicates that there is a moderate positive correlation between social media usage and smartphone addiction. And according to the regression analysis, strength of the relationship between social media usage and smartphone addiction is 0.267. Therefore, it can be concluded that there is enough evidence to say that, there is a positive impact of social media usage on smartphone addiction of undergraduates.

Testing Hypothesis 3

There is a negative impact of smartphone addiction on psychological wellbeing of undergraduates at the selected State University.

According to the correlation table 4, correlation coefficient value of smartphone addiction on psychological wellbeing was -0.436 and correlation

Discussion

Currently, social media has become an essential part of the day-to-day life of individuals, particularly the young

population. Social media can improve the interaction of people and allow them to express themselves, but there have also been worries expressed about its possible harmful impacts on psychological wellbeing. And according to the regression analysis, strength of the impact of smartphone addiction on psychological wellbeing is 0.190. Therefore, it can be concluded that there is enough evidence to say that, there is a negative impact of smartphone addiction on psychological wellbeing of undergraduates.

Testing Hypothesis 4

Smartphone addiction mediates the relationship between social media usage and psychological wellbeing of undergraduates at the selected State University

According to the table 5 model summary in direct regression analysis, strength of the relationship between social media usage and psychological wellbeing is 0.028 and Significant value of the Regression is 0.002 ($p < 0.05$). But, according to the table 14 model summary in indirect regression analysis, strength of the relationship between social media usage and psychological wellbeing is 0.195 and Significant value of the Regression is 0.002 ($p < 0.05$). Therefore, after considering impact of smartphone addiction, the strength of the relationship between social media usage and psychological wellbeing has been increase. Therefore, it can be concluded that there is enough evidence to say that, smartphone addiction mediates the relationship between social media usage and psychological wellbeing of undergraduates.

population. Social media can improve the interaction of people and allow them to express themselves, but there have also been worries expressed about its possible harmful impacts on psychological well-

being, among university students. Therefore, this research study mainly focused on the impact of social media usage on psychological wellbeing of undergraduates at a selected State University of Sri Lanka with the mediating role of smartphone addiction.

Here, the researchers collected data from 368 undergraduates by covering six faculties. Further, the researchers used various statistical analysis techniques to achieve these primary objectives such as descriptive, correlation, and regression analysis. This study follows the deductive research approach to achieve its research objectives. The data were collected using a self-administered questionnaire developed from the standard measure which was validated by previous researchers and the measure. For this study data collected within a particular period. Therefore, this is a cross-sectional study.

According to the correlation analysis results, there is a negative relationship between psychological well-being and Social Media Usage. It was -0.167, and there is a negative correlation between psychological well-being and Smartphone addiction with a -0.436 correlation value, and there is a positive correlation between Social Media Usage and Smartphone addiction, with a correlation value of 0.517. The regression coefficient of this study indicates that Social Media Usage has a negative impact on Psychological Well-being ($\beta = -0.438$, $p < 0.05$). Its significant value is 0.002. Therefore, the first hypothesis is accepted. Social Media Usage indicates that it has a positive impact on Smartphone addiction ($\beta = 0.922$, $p < 0.05$) and the significant value is 0.000. Therefore, the second hypothesis is also accepted. Smartphone Addiction indicates that it has a negative impact on Psychological Well-being ($\beta = -0.643$, $p < 0.05$) and the significant value is 0.000. Therefore, the third hypothesis is also accepted. According to the mediation

analysis, smartphone addiction indicates that it has a negative impact ($b = -0.6483$, $p < 0.05$) on Psychological Well-being in the indirect effect. The upper Limit of Confidence Interval and Lower Limit of Confidence Interval is going to the same direction. However the direct effect of Social Media Usage on Psychological Well-being in presence of the mediator was insignificant because ($b = 0.2104$, $p > 0.05$). Upper Limit of Confidence Interval and Lower Limit of Confidence Interval is going through zero. Hence, Smartphone Addiction fully mediates the relationship between Social Media Usage and Psychological well-being. Therefore, the fourth hypothesis is accepted. Hence according to the study findings, all hypotheses were supported.

The first hypothesis proposed was that social media usage has a significant negative impact on undergraduates' psychological well-being. The impact of social media usage on psychological well-being was statistically significant at the 0.05 level, according to the regression. However, this result is consistent with previous findings. The study conducted by Aditya (2022), on the topic of "The Impact of Social Media Usage on Personality and Psychological Well-being of Young Adults" has found that there is a negative relationship between social media usage and psychological well-being, which is consistent with the other studies of the same (Luca et al., 2022; Dragana et al., 2021; Hilal & Shabir, 2017; Woods & Scott, 2016; Upadhayay, 2018). According to Aditya (2022), there is no significant mean difference between males and females in social media usage. And, Luca et al. (2022) have found that the introduction of Facebook at a college had a negative effect on student mental health. They also found that, after the introduction of Facebook, students were more likely to report that poor mental health negatively affected their academic performance. Social media usage has dangerous effects on the younger

generation because of problems related to mental health. And also, these problems can be identified as online harassment, depression, sexting/texting, stress, fatigue, loneliness, decline in intellectual abilities, cyberbullying, emotion suppression, lack of concentration, and these all things directly or indirectly affect the mental health of the younger generation (Hilal & Shabir, 2017).

On the other hand, some researchers have stated the opposite side of the above findings. In the study conducted by Monika and Gautam (2023), on the topic of “The Impact of Social Media Use towards the Psychological Well-Being of University Students” has been found that social media marketing use has a favourable indirect effect on mental health, most likely as a result of the benefits gained from increased social capital through connecting and bridging. That finding is consistent with the other studies as well. (Saira et al., 2021; Hassan & Farin, 2020). However, there are Positive effects also including accessing other people’s health experiences and expert health information, managing depression, emotional support and community building, expanding and strengthening offline networks and interactions, self-expression and self-identity, establishing and maintaining relationships. However, in the University context, the impact of social media usage on the psychological well-being of undergraduates was statistically significant and there is a significant low negative impact.

The second hypothesis focused on determining the impact of social media usage on smartphone addiction. At the 0.05 level, the regression result revealed a statistically significant positive effect of social media usage on smartphone addiction. The findings of the study positively aligned with the results of Mengistu et al. (2023), Dragana et al. (2021), Mathew and Amaresha (2021)

indicated that being female, first-year students in university and poor sleep quality were significantly associated with problematic smartphone use. Therefore, in this context identified that there are positive impacts of social media usage on smartphone addiction.

The third hypothesis of this study was to determine the impact of smartphone addiction on psychological well-being. The impact of smartphone addiction on psychological well-being was statistically significant at the 0.05 level, confirming that smartphone addiction has a significant negative impact on psychological well-being. The findings of the study positively aligned with the results of Kokkaparambil and Gautam James (2023), Horwood and Anglim (2019), Kumcağız and Gündüz (2016). According to Horwood and Anglim (2019), higher levels of social media use were associated with anxiety, negative emotions, and a lack of control, combined with a tendency to engage in maladaptive coping and compulsive behaviour. In addition, their findings indicated that problematic smartphone usage was correlated with lower well-being on almost all scales. Such as negative affect, autonomy, and environmental mastery had the largest negative correlations with problematic smartphone usage.

The fourth hypothesis was to identify whether smartphone addiction mediates the relationship between social media usage and psychological well-being. The findings of this study positively related to Kiran et al. (2023) and Dragana et al. (2021). All these researches indicated that smartphone addiction mediates the relationship between social media usage and psychological well-being. And, there is a negative relationship between psychological well-being and smartphone addiction. Therefore, in the University context also smartphone addiction mediates the relationship between social

media usage and smartphone addiction and here it operates as a full mediator.

There are a few recommendations that can be helpful for undergraduates. Undergraduates need to Consider the amount of time spent online and how it might be impacting their overall well-being. They should be mindful of the content which they share on social media and Pay attention about the activities on social media that affect for the future. And also, parents should foster an open and non-judgmental environment where the child feels comfortable to discussing their online experiences. Ask questions and initiate conversations and encourage them to share their thoughts, concerns, and feelings about social media. Encourage children to spend time with friends and family in real-life settings, promoting social connections beyond the digital realm. On the other hand, it will be highly appropriate, to organize educational programs and awareness programs about the effective utilization of social media and to encourage undergraduates to avoid smartphone addiction with the purpose of enhancing their well-being and mental health by mitigating their social media usage as well as prevent from smartphone addiction.

Conclusion

This study mainly focused on investigating the mediating role of smartphone addiction on the relationship between social media use and the psychological well-being of undergraduates at a selected state University of Sri Lanka (General objective) and, the researcher developed three specific objectives. Such as to investigate the impact of social media use on the psychological well-being of undergraduates, to investigate the impact of social media use on smartphone addiction of undergraduates, to investigate the impact of smartphone addiction on the

psychological well-being of undergraduates.

Based on the findings of this study, it can be mentioned that social media usage has a significant negative impact on the psychological well-being of the undergraduates at the selected State University. And, this negative impact becomes increases with smartphone addiction.

There are a few recommendations that can be helpful for undergraduates. Undergraduates need to consider the amount of time spent online and how it might be impacting their overall well-being. They should be mindful of the content which they share on social media and Pay attention about the activities on social media that affect for the future. And also, parents should foster an open and non-judgmental environment where the child feels comfortable to discussing their online experiences. Ask questions and initiate conversations and encourage them to share their thoughts, concerns, and feelings about social media. Encourage children to spend time with friends and family in real-life settings, promoting social connections beyond the digital realm. On the other hand, it will be highly appropriate, to organize educational programs and awareness programs about the effective utilization of social media and to encourage undergraduates to avoid smartphone addiction with the purpose of enhancing their well-being and mental health by mitigating their social media usage as well as prevent from smartphone addiction.

For future researchers, it can be recommended to select a large sample to further improve the generalizability and consider the other factors affecting psychological well-being.

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