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Smartphone Addiction and Social Self-Efficacy Predicting Interpersonal Competency Among Young Adults

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Abstract

The aim of the study was to explore the relationships between smart phone addiction, social self-efficacy and interpersonal competence among young adults. A sample consisted of young adults 200 male and female enrolled in universities located at Lahore, with the age range of 18-28 years old (*M* = 25.34, *SD* = 2.12). A data was collected by non-probability purposive sampling techniques. Three measuring included: Smartphone Addiction Scale, Social Self-Efficacy Questionnaire and Brief Form of Interpersonal Competence Questionnaire were utilized. Findings of the study suggested that smart phone addiction is a negative relationship between interpersonal competence, while social self-efficacy is a positive correlate with interpersonal competence among adults. Smartphone addiction was a negative predictor of interpersonal competence while social self-efficacy was a positively predict the interpersonal competency in adults. Moreover, the outcome also revealed that social self-efficacy significantly mediates the effect on the smartphone addiction and interpersonal competence. In conclusion, study indicating an excessive use of phone may impair individual capacity to manage and participate in social situation successfully. It suggests that the future studies could involve people from different economic classes and acknowledges the need for further investigation into this recent topic.

Keywords: Smartphone Addiction, Social Self-efficacy, Interpersonal Competence

Introduction

In the age of modernity, smartphones have become one of the tools that young adults depend on for various purposes such as communication, entertainment, and productivity. This has raised concerns about their negative impact on social skills and social wellness by overuse (Wilmer et al., 2017). Smartphone "addiction" term as "problematic smartphone use" is frequently describes a recurrent failure to control the addictive behavior that results in functional impairment or distress, which meets the criteria for behavioral addiction as proposed by Macrynikola et al. (2021). The suggested symptomatology of smartphone addiction, based on DSM-5 criteria for gambling disorder and substance abuse (De-Sola Gutiérrez et al., 2016). Pakistani youth are addicted to smart-phones due to lack of awareness and excessive academic use (Samar et al., 2022). They can cause separation anxiety and provide comfort during stress (Mushtaque et al., 2022). It is particularly prevalent among young people and adolescents in developed and developing countries, particularly in Pakistan, where 60% of youth suffer from smartphone addiction due to

lack of awareness and excessive academic use. There has been a noticeable increase in research on smartphone and mobile phone addiction, with an estimated 0%-35% of undergraduate students suffering from smartphone addiction. Uncontrolled smartphone use increases accidents and risks for young performers (Lin et al., 2016), including road traffic injuries, pedestrian collisions, and falls. Adolescents are more likely to text while driving, and pedestrian accidents in Korea have risen by 1.9 times over four years. While protective factors include self-regulation, positive parenting, peer relationships, and social support (Zhao et al., 2022). Self-efficacy, a psychological concept by Bandura (1997), refers to an individual's belief in their ability to achieve specific goals, which significantly impacts their ability to face challenges and make informed choices, particularly in health, education, and agriculture. Social self-efficacy refers to an individual's confidence in their ability to engage in social interactions and maintain personal relationships (Ahmad et al., 2014). It encompasses abilities like assisting others, being a friendly group member, having social courage, and asking for help. High social self-efficacy correlates with successful social interactions, while low self-efficacy tends to decline with social interaction (Dishman et al., 2019). Individuals with a strong sense of social self-efficacy overcome setbacks and approach situations by considering how to handle them. High social self-efficacy is associated with positive outcomes in daily life, such as stress and adversity resilience, healthy lifestyle choices, enhanced work performance, and academic success. Health professionals suggest that confidence in healthy behaviors boosts outcomes, and self-efficacy is linked to education, with high self-efficacy correlated with better organization and academic performance (Shengyao et al., 2024). High social self-efficacy is linked to positive outcomes in daily life, such as stress and adversity resilience, healthy lifestyle choices, enhanced work performance, and academic success. Health professionals believe that confidence in carrying out healthy behaviors increases likelihood of achieving these outcomes. High self-efficacy can facilitate exercise regimen maintenance, improve physical and mental health, and encourage healthy lifestyle decisions like quitting smoking or maintaining a nutritious diet. Health psychologists believe self-efficacy can be applied in various ways to support a healthy lifestyle (Neumann et al., 2021).

Interpersonal competence (IC) involves forming relationships, self-disclosure, emotional support, and conflict resolution, promoting support networks during stressful life events, and reducing psychological stress in cancer patients and care (Neslihan Çıkrıkçı, 2024). Zhang et al. (2023) relational competence model, based on Bloom's learning taxonomy, identifies three fundamental components of communication competence: skill, knowledge, and motivation, aligning with Littlejohn and Jabusch's 1987 identification. Effective communication relies on perceptions of effectiveness and validity. It adapts to the situation and must be tailored to the situation. Communication competence can have short-term or long-term effects, and all participants must accept responsibility for the outcomes and rewards resulting from the interaction (Dietl et al., 2023). During excessive smartphone use, when misunderstandings or breakdowns in communication can worsen emotions of loneliness or impulsivity, this shared accountability is crucial. Enhancing communication skills can benefit people in the long run by promoting happier relationships, strengthening social ties, and developing surroundings that are supportive and less dependent on cellphones to control emotions. Social self-efficacy, a measure of one's confidence in one's capacity for interpersonal interaction significantly moderates the impact of smartphone addiction on interpersonal competence. Self-efficacy has an impact on a person's motivation, capacity for behavior control, and capacity for goal setting (Ding et al., 2022). According to research by Lin et al. (2022), excessive Internet use among university students is negatively correlated with perceived self-efficacy. Who have greater levels of self-efficacy are unlikely to engage in digital technology including smartphone addiction. The study also emphasizes the role that self-efficacy may play in mitigating the harmful effects of smartphone addiction. Social self-

efficacy has a direct impact on user happiness and an indirect impact on addictive behaviors, by Yang et al. (2016) on the dual effects of enjoyment on mobile social networking usage. Additionally, social self-efficacy was found to have a negative correlation with both internet addiction and loneliness by Gazo et al. (2020), highlighting the importance of this construct in encouraging positive online behavior. Interpersonal competency is influenced by both social self-efficacy and smartphone addiction, which interact in a complicated way. Chiu (2014) discovered that social self-efficacy was a favorable predictor of smartphone addiction and negatively linked with interpersonal stress. This implies that people who have lower levels of social self-efficacy might be more vulnerable to smartphone addiction, which could subsequently affect their capacity for interpersonal interaction. Furthermore, Mushtaque et al. (2021) found that the inclination toward cyber-laziness and the usage of digital devices both had an impact on smartphone addiction. According to their research, smartphone addiction has a big impact on interpersonal and personal development even though it has no direct effect on academic achievement. The results indicate that boosting self-efficacy and encouraging appropriate technology usage should be the main goals of therapies meant to lessen smartphone addiction.

Rationale of Study

Smartphone technologies have significantly transformed social interaction, communication behavior, and daily modes of existence among the youth in Pakistan. While smartphones are very convenient and enable connectivity, excessive use has been associated with adverse psychological and social effects, such as reduced face-to-face interaction, social withdrawal, and impaired interpersonal skills. Smartphone addiction has become a serious concern in an academic and occupational context because interpersonal competence is crucial for success. Likewise, social self-efficacy is important in molding ones' social behavior and relationships. Any individual having high social self-efficacy would rather easily exhibit normal interactive behaviors; whereas, low self-efficacy people may not communicate or build relationships very easily, hence, they may suffer from social anxiety, and hence isolation. This study, therefore, is pertinent because it examines smartphone addiction and social self-efficacy interrelates in effecting interpersonal competency of young adults in Pakistan. This knowledge is employed in coming up with targeted interventions that encourage healthy use of smart devices and skill development in interpersonal engagement, culminating growth in personal, academic, and career development of the youth.

Objectives

- To assess the relationship between smartphone addiction and interpersonal competency among young adults.
- To examine the relationship between social self-efficacy and interpersonal competency among young adults.
- To examine the social self-efficacy mediating relationship between smartphone addiction and interpersonal competency among young adults.

Method

Research Design and Sampling Strategy

A correlation research design and purposive sampling strategy was used to obtain young adults from Graduate Women Colleges, Panjab University, and Lahore University in Lahore. A total sample (N = 200) was contain males and female. Age of the participant was selected 18 to 28 years' old young adults.

Measures

Smartphone Addiction Scale Short Version (SAS-SV)

Smartphone Addiction Scale Short Version constructed by Kwon et al (2013). A shortened version scale has 10 items. It has six-point rating scale with 1 representing strongly disagree, 2 disagree, 3 weakly disagree, 4 weakly agree, 5 agree, and 6 strongly agree. A total scale score range was 10 - 60. The Alpha reliability of this questionnaire was 0.91 as well as in recent research Cronbach's alpha was $\alpha = .87$.

Social Self Efficacy Questionnaire (SEQ-C)

Muris et al. (2011) established the Social Self-Efficacy Questionnaire. SEQ-C has 21 items. Social self-efficacy scale was divided into three subscales, such as academic, social, and emotional. The Likert scale has five points, with 1 representing not very good and 5 representing very good. Cronbach Alpha reliability of this scales was 0.90 and in the resent questionnaire was $\alpha = .86$.

Brief Form of Interpersonal Competence Questionnaire (ICQ-15)

Brief Form of Interpersonal Competence Questionnaire was developed by Buhrmester et al. (1988). There were 15 items. ICQ-15 includes five subscales, including emotional support, disclosure, initiation, negative assertion, and conflict management. Five dimensions covered by ICQ-15, a shortened version of widely used, are relationship initiation (items 2, 7, 9), negative assertion (10, 12, 13), disclosure (items 3, 5, 8), emotional support (4, 11, 14), and conflict management (1, 6, 15). Items were rated by participants according to how challenging they thought each social behavior was. A 5-point Likert scale was used to grade the responses, with 1 representing lowest score and 5 representing highest. The Alpha of this scale was $\alpha = 91$ while present study's Cronbach's alpha for this scale was $\alpha = .84$.

Procedures

The initiation of the study began with an approval from the Ethical Review Board of Studies; followed by obtaining permission from authors of the measurement scales. The institution gave approval on behalf of the Institute Authority, and with formal approval letter ethical considerations were ensured. Permissions were further obtained from the heads of the selected universities. Participants were selected from Graduate Women Colleges, Punjab University, and Lahore University in Lahore, on the basis of inclusion and exclusion criteria. After the permissions were granted, data collection took place in parlance with the permission of each participant: questionnaires were administered in a single session and each participant took 15-20 minutes to complete the questionnaire. Their study objectives were explained beforehand, and consent for participation obtained. The confidentiality of all participants was assured, and participants had the right to withdraw at any point in time. Once the questionnaires were completed, participants were thanked, and SPSS provided data for analysis within the set framework of ethicality and confidentiality. After the procedure of data collection, data was calculated throughout various phases. Results were examined using psychometric properties, descriptive statistic, correlation, regression and mediation through PROCESS by Statistical Package for Social Sciences software.

Results

Table 1 *Demographic Variables of the Study Participants (N = 200)*

Demographic Statistics	*f*	%	*M(SD)*
Age			25.34(2.12)
Gender			1.50(.50)

Male	100	50.0%	
Female	100	50.0%	
Marital Status			1.60(.49)
Married	80	40.0%	
Unmarried	120	60.0%	
Family Time			2.42(.73)
Less than 2 hour	29	14.5%	
2 hour - 4 hour	29	29.0%	
More than 4 hours	113	56.5%	
Usage of Social Media Account			2.99(1.15)
Less than 1 hour	21	10.5%	
1-2 hour	49	24.5%	
3-4 hour	63	31.5%	
5-6 hour	45	22.5%	
7 hour or above	22	11.0%	

Note. M =Mean, SD = Standard Deviation, f = Frequencies, % = Percentage

Table 1 showed that the sample is based on 50% male and 50% female adults. Most of the participants (60%) were unmarried and (40%) were married. Furthermore, 546.5% participants were spending time with more than four hours. Moreover, 31.5% participants were spending time 3 to 4 hour of social media account.

Table 2 Correlation Analysis

Variable	**1**	**2**	**3**
1. Smartphone Addiction	-	-.44***	-.30***
2. Social Self Efficacy		-	.26***
3. Interpersonal Competency			-

There is a correlation between smartphone addiction, social self-efficacy, and interpersonal competency as illustrated in Table 2. The results indicate a significant negative correlation between smartphone addiction and social self-efficacy ($r = -0.44$, $p < .001$), as well as between smartphone addiction and interpersonal competency ($r = -0.30$, $p < .001$). This indicates that higher smartphone addiction tends concomitantly with lower confidence in social abilities and interpersonal competency. In contrast, social self-efficacy shows a significant positive correlation with interpersonal competency ($r = 0.26$, $p < .001$), thus demonstrating the tendency of individuals confident in their social capabilities to exhibit better interpersonal skills.

Table 3 ***Multiple Hierarchical Regression Analysis For Prediction of Interpersonal Competence***

Variables	*B*	95% CI		*SE B*	β	R^2	ΔR^2
		LL	*UL*				
Step 1						.02	
Constant	55.41	35.45	75.36	10.11			
Age	-.62	-1.28	.03	.33	-.15		
Gender	.89	-1.56	3.34	1.24	.05		
Marital Status	-1.19	-4.08	1.68	1.46	-.06		
Step 2						.12***	.10
Constant	51.26	29.92	72.59	10.81			

Age	-.31	-.95	.33	.32	-.07
Gender	.19	-2.16	2.54	1.19	.01
Marital Status	-1.50	-4.26	1.24	1.39	-.08
Smartphone Addiction	-.20	-.33	-.06	.06	-.22**
Social Self Efficacy	-.11	.09	.22	.05	.16*

*Note. N = 200, *P <0.05, **p<0.01, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit.*

Table 3 findings indicate that there was non-significant impact of age, gender, and marital status on the Interpersonal Competency in young adults. In the Step 1, the R^2 value of .02 showed that the age, gender, and marital status explained 2% variance in the Interpersonal Competency with F (3, 196) = 1.42, P >.05. In Step 2, the R^2 value of .12 revealed that the Smartphone Addiction and Social Self Efficacy explained 10% variance in the Interpersonal Competency with F (2, 194) = 11.13, P <.01. The outcome showed that Smartphone Addiction negatively predicted Interpersonal Competency (β = -.20*, p< .01), while Social Self Efficacy was a positive predictor of Interpersonal Competency (β = -.10, p> .05).

Table 4*Direct and Indirect Mediation Effect of Social Self-efficacy Between Smartphone Addiction and Interpersonal Competence*

Variables	Model 1	Model 2	Model 3	95% CI
Constant	78.06***			[71.34, 84.77]
Smartphone Addiction → SSE	-.53***			[-.68, -.38]
Constant		41.61***		[31.72, 51.49]
Smartphone Addiction → IC		-.20**		[-.33. -.07]
Social Self-efficacy → IC		.11*		[.01, .22]
Constant			.50.84***	[45.62, 56.06]
Smartphone Addiction →IC			-.26***	[-.38, -.15]
R^2	.44	.34	.30	
F	48.52***	12.89***	20.73***	

*Note. N = 200, *P <0.05, **p<0.01, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit. SSE = Social Self-efficacy, IC = Interpersonal Competence.*

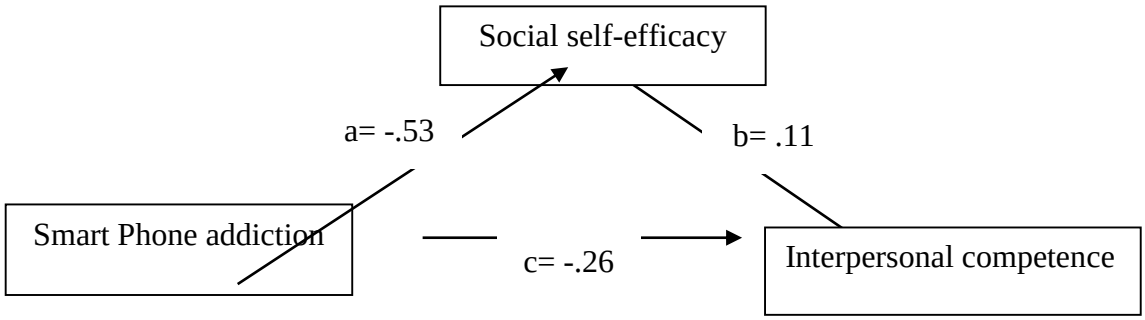

Figure 1 Path analysis for Direct and Indirect Mediation Effect

Table 4, figure 1 shows the mediating role of social self-efficacy on the relationship between smart phone addiction and interpersonal competence among young adults. The outcome showed that smartphone addiction was a negatively association with social self-efficacy (a = -.53). Moreover, the direct effect of smartphone addiction on Interpersonal competence. in presence of mediator has also found significant (b = .11). A significant indirect effect of smartphone addiction on

Interpersonal competence. However, social self-efficacy fully mediates the relationship between Smart Phone addiction and Interpersonal competence.

Discussion

The purpose of this study was to investigate the relationship between smartphone addiction, social self-efficacy, and interpersonal competence in young adults, focusing on the mediating role of social self-efficacy. The first hypothesis, which proposed a negative relationship between smartphone addiction and interpersonal competence, was supported. The results are consistent with previous research, such as the work of (Soonjoo et al.,2014) and (Celikkalp et al., 2020), who indicated that smartphone addiction negatively affects communication skills and social interactions. Excessive smartphone use can lead to difficulties in face-to-face communication, stress and negative effects on academic performance and family dynamics. This study confirms a positive relationship between social self-efficacy and interpersonal competence, confirming previous research by Stella et al., (2023) and (Martin et al., 2014). High social self-efficacy leads to better interpersonal skills, better relationships, and motivation in educational settings, emphasizing the importance of confidence in social skills Babadi-Akashe et al., (2014). From second hypothesis, social self-efficacy significantly influences behavior direction, intensity, and persistence in young adults, leading to higher academic participation and self-awareness. Positive interpersonal relationships stimulate self-awareness and motivation. The study validates the third hypothesis that smartphone addiction and social self-efficacy predict interpersonal competence, aligning with previous research by (Marin et al., 2013). The study suggests that smartphone addiction and social self-efficacy are significant predictors of interpersonal competence among young adults. This is due to the psychological distress caused by virtual social media use, leading to avoidance behavior and unmet social needs. Previous research supports this finding. According to fourth hypothesis, Social self-efficacy significantly mediates the relationship between smartphone addiction and interpersonal competence among young adults. It mediates the effects of social anxiety on college students' interpersonal competence, social skills, and mobile phone addiction, suggesting a cognitive mechanism in mediating these relationships. Previous studies (Shao et al., 2014) have found self-efficacy buffers stress and anxiety related to smartphone use, preserving interpersonal competence (Zhenlei et al., 2022).

Implications of the Study

The study suggests that smartphones significantly influence adult social self-efficacy and interpersonal competence. It suggests future research could include participants from different socioeconomic backgrounds and acknowledges the need for further research on this topic.

Limitations and Future Suggestions of the Study

The study faced limitations due to data collection from Pakistani private and government universities, limited indigenous literature, and being quantitative, leaving detailed aspects of nature understudy phenomena unexplored. Further research should focus on large sample sizes, diverse cultures, countries, and cities to better understand smart-phone addiction, social self-efficacy, and interpersonal competence in public and government sector clinical psychologists. The observation method can provide more results and information, while indigenous data collection tools should be developed in accordance with Pakistani culture for better understanding and valid information collection.

Conclusion

The study explores the relationship between smartphone addiction, social self-efficacy, and interpersonal competence in young adults. It found an inverse relationship between smartphone

addiction and interpersonal competence, suggesting excessive smartphone use can hinder social engagement. However, social self-efficacy was positively correlated with interpersonal competence, suggesting confident social skills lead to stronger interpersonal abilities. The study emphasizes the need for interventions to enhance social skills and reduce the negative effects of smartphone addiction. The study suggests that interventions promoting healthy smartphone usage, enhancing social self-efficacy, and fostering positive interpersonal relationships could enhance well-being and social functioning in the digital age.

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