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Social Media Addiction and Life Satisfaction among University Students: A Mediating Role of Offline Social Connectedness

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ABSTRACT

The current study examined the mediating role of offline social connectedness in relation to social media addiction and life satisfaction among university student. The design of the study is cross-sectional correlation design, and data were collected from 363 participants in university of Gujrat through convenient sampling. Three different measures were used to evaluate the study variables i.e., social media addiction, offline social connectedness and life satisfaction. The results of the study revealed that all the three variables are significantly correlated with each other, moreover, path analysis indicated that social media addiction significantly predicted offline social connectedness, and offline social connectedness positively predict life satisfaction. The results indicate that while serious social media use may affect student's connectedness, it is the quality of offline social connections that actually contributes the most to life satisfaction. The study is based on the news that engaging in quality face-to-face friendships and being intentional with social media engagement will contribute to students' well-being overall.

Introduction

"Social media addiction" describes the inability to control internet usage and the obsessive, excessive use of it as a coping mechanism for difficulties in life (Kim & Davis, 2009). According to the social media addiction model, as social media addiction is a complex delinquent with distinct cognitive and behavioral indicators, some problems may arise in the cognitive and behavioral facets of an individual's personality. When adolescents simply want to communicate with people, their emotional states are said to quickly diverge, which results in obsessions and compulsions (Caplan, 2010).

In the era of the internet, social media has become an integral part of our daily lives. Four billion individuals are using social media, with Facebook accounting for more than half of these users (Cheng et al., 2021). The explosive growth of social media has changed the way users interact with the world around them, especially among youth. Social media has also raised awareness of mental health and wellbeing, providing opportunities to stay in touch with distant contacts and access knowledge. Social media raises concerns about social media addiction, which harms users' psychosocial functioning and general well-being, even as it helps create new connections and sustain existing ones over time and distance (Lee et al., 2001).

Social connectedness is the mechanism that underlies the connection between disordered interpersonal behaviors and psychological discomfort. Users of this addiction may experience anxiety when unable to access social media sites such as Instagram, even for work-related reasons. This is due to their excessive use of these platforms (Cheng et al., 2021). The young are involved in social media, and it is imperative to connect social media addiction, offline social connectivity, and life satisfaction. Although a lot of research has observed the overall effects of social media use, there is an increasing need to distillate how excessive online interaction might reduce offline relationships (Wang & Wang, 2013).

Social connectedness is the extent and kind of a person's relationships and exchanges with other members of their communities, social networks, or the public as a whole. It includes feelings of attachment and belonging in addition to involvement with friends, family, close friends, and larger social groups. In addition to the quantity and quality of social interactions including their proximity and depth the idea of social connectedness also takes into account the cooperation, mutual support, and trust that characterize these relationships. Social media is crucial for improving mental health, emotional well-being, and overall quality of life because it provides opportunities for social support, companionship, shared experiences, and a sense of belonging. (Savci et al., 2020).

Cross-cultural views claim that individualism as opposed to collectivism, is the most significant and widespread feature of national culture, affecting people's beliefs and behavior. When it comes to their social networks, people from collectivist nations typically view themselves as fundamental, while individuals from individualist nations typically view themselves as unique. (Hofstede, 2016). The significance of networking with individuals of the same age group for the general psychosocial development and well-being of young people is shown by peer connections. In terms of socialization in particular. It is evident that young people nowadays are consistently exposed to technology and online contact (Wood et al., 2016). Furthermore, people's happiness in life is likely to be influenced by their responses to other people's social media posts. Individuals with lower levels of happiness have distinct types of social information processing (Abdellatif, 2022). The symptoms of substance-related addictions, such as extraction, conflict, and loss of control, are brought on by problematic social media usage, and more particularly by excessive social media use (Ahn & Shin, 2013).

The dynamics of social relationships that are created and sustained on social media may differ from those of ties that depend on in-person networking. The internet era provides the ease of establishing social ties that rely less on physical proximity and more on how closely a person's beliefs and interests match those of others using the same digital area. These virtual relationships may be powerful, genuine, personal, and mutually beneficial, and they can be used to enhance face-to-face and phone conversations. (Chayko, 2012).

According to Lee and Robbins, one of the elements of belongingness is social connectedness, which is defined as people's subjective perception of intimacy and capacity to identify with others in their social circles. One's subjective perception of belongingness is reflected in their feeling of social connection, which is founded on the accumulation of relationships. Therefore, social connectedness can provide a sense of individuality and a sense of place in common circles. Research has found that a better sense of social connectedness was related to feeling positive psychological outcomes, such as a lower level of depression and a higher level of self-esteem. It has also been proved that social connectivity mediates the link between these psychological effects and social support (Williams & Galliher, 2006).

Offline social connectedness is essential to life fulfillment it promotes a feeling of community, emotional support, and deep interpersonal connections. Strong offline ties have been linked in studies to improved resilience, lower stress levels, and general psychological well-being. On the other hand, overuse of the internet can occasionally take the place of in-person conversations, which may weaken offline social ties and life happiness. According to research, overuse of digital technologies might result in social isolation even if they can improve virtual connectedness (Grieve et al., 2013).

Research indicates that anxiety, decreased productivity, and harmed social connections are all associated with technostress. In the context of social media, it can weaken connections in the real world by substituting obsessive online participation for meaningful offline encounters. Since in-person communication is still necessary for psychological health and emotional fulfillment, this imbalance may result in a reduced level of life satisfaction. It is essential to comprehend how technostress contributes to social media addiction to preserve a good equilibrium between social connections both online and offline. Effectively controlling the use of technology can improve people's well-being and quality of life (Tarafdar et al., 2019).

The study looks into the significant effects that excessive social media use has on young people's lives. The excessive use of social media among youth has had a significant impact on their daily lives, influencing their conversation patterns, social interactions, and overall mental health. Social media platforms provide a means of connecting with others and expressing themselves, but overuse of these tools has sparked concerns about hazards such as social media addiction. The study also examines how addiction to social media may alter interpersonal relationships and disrupt traditional family interaction. Thus, the current study examines the relationship between social media addiction and life satisfaction among university students, with a focus on the mediating function of Offline Connectedness.

Objectives of the Study

- To find out the relationship between social media addiction, offline social connectedness, and life satisfaction among university students.
- To investigate the connection between social media addiction and life satisfaction with the mediating effect of offline social connectedness among university students.
- To understand the interplay between social media addiction, offline social connectedness, and life satisfaction variables among university students.

Theoretical Framework of the Study

Maslow's Hierarchy Theory: People's capacity to meet fundamental needs such as eating and sleeping is hampered when they prefer social media over these activities, which lowers their level of life satisfaction. Although excessive use of social media can result in low relationships, peer pressure, and loneliness, it can also increase emotions of belonging. Overuse of social media for networking purposes can harm in-person relationships and ultimately lower life satisfaction.

Family System Theory: The Bowen family systems theory was developed by psychiatrist Dr. Murray Bowen and provides valuable insights into the dynamics of family associations and how they affect our lives. Understanding and putting the Bowen family systems theory's ideas into practice helps people strengthen their bonds, deal with difficult situations more clearly and effectively, and promote emotional diversity.

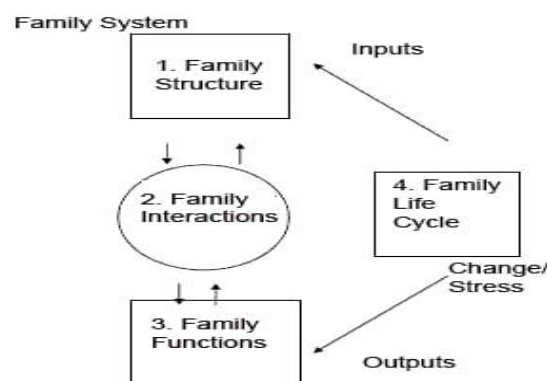


Figure 1: Model of family system theory

The application of FST in family therapy, counselors work with families to identify and modify dysfunctional relationship patterns. This is one of the main uses of family systems theory. Therapy attempts to develop healthy dynamics that benefit all members of the system by treating it as a whole rather than concentrating on a single individual. It is possible to apply family systems theory to comprehend how family dynamics affect each person's level of life satisfaction. On the other hand, unfavorable dynamics like conflict or emotional detachment result in a lower quality of life. In the area of parenting, the concept is frequently used to help parents realize how their actions impact their kids and vice versa. Understanding the child's conduct in the context of family dynamics, as opposed to seeing it in isolation, is typically an effective parental strategy.

Social Network Theory: Social network theory is a theoretical framework that highlights the importance of social networks. This complex interrelated discipline combines aspects of sociology and psychology. Social network theory has extended the fields of psychology, and sociology. The application of this theory on students and states that members of social group networks have an impact on them. Assessing social networks within communities helps in understanding the strength of social ties and the availability of resources, which inform community-building efforts and social support initiatives. Networks are dynamic and evolve, with relationships forming, strengthening, or dissolving. However, Changes in the network structure or individual connections impact behaviour and outcomes in different ways over time.

Theoretical Model for the study variables

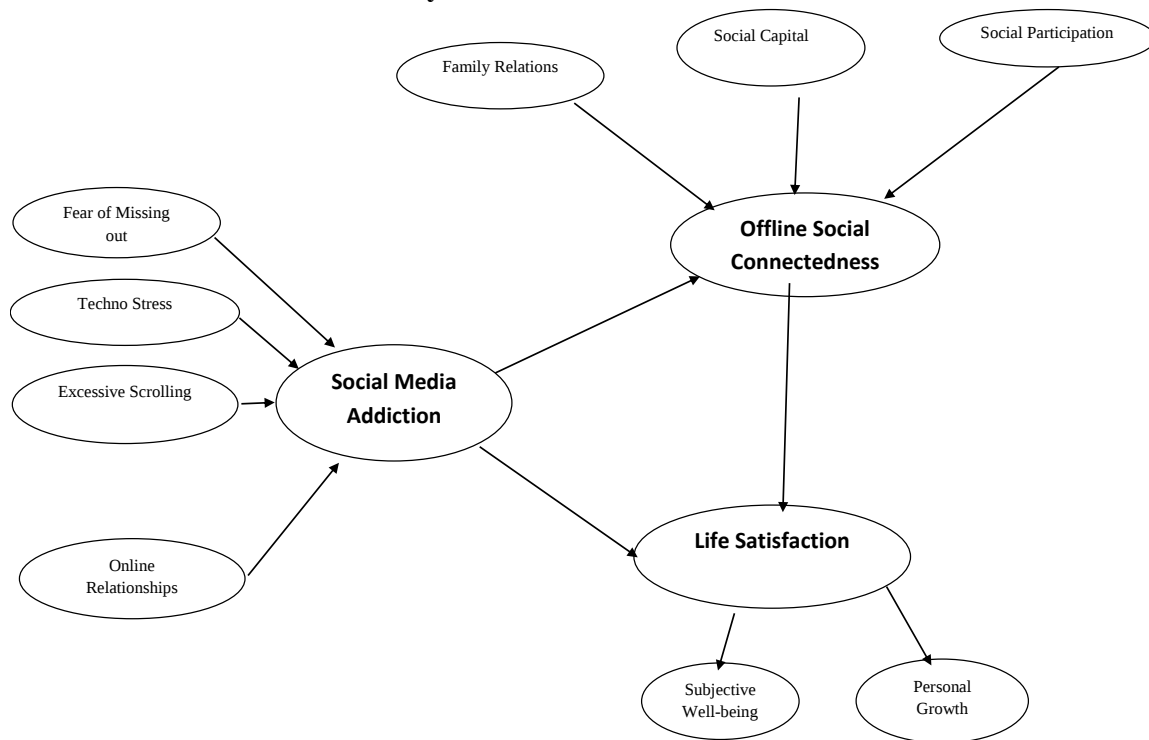


Figure 2: For SEM, a proposed schematic diagram illustrates the logical connections among the variables under study.

There is sufficient reasoning to support the following hypothesis, which is based on the assumptions and schematic diagram previously described:

Hypothesis of the Study

- There is likely relationship of social media addiction on offline social connectedness among university students.
- There is likely relationship of social media addiction on life satisfaction among university students.
- Offline social connectedness palying a role of mediator between social media addiction and life satisfaction among university students.

Methodology

This is a cross-sectional research and predictive correlation design was used in this study. Both male and female students from the University of Gujrat. The target population is the total number of individuals from which the data is collected. In this study researcher, simple random sampling was used by the use of a sampling frame that was taken from the faculty/programs of the University of Students, which are social sciences, basic sciences, management sciences, computer science, and the arts of humanities.

Participants of the Study

A researcher can utilize this collection of elements to choose a sample from the population. Sampling framework taken from the University of Gujrat. The lists of students were taken from the departments. The sample size of the research is 363. To draw the sample size by using the Taro Yamane formula. A survey method was used as a technique of data collection, and a well-structured questionnaire was used as an instrument of data collection. Data was collected from students through a survey method. The SPSS software has been used for the thesis report. The researcher used the following techniques to fulfil the research objectives: Kendall's tau-b Correlation, Simple Linear Regression, and Mediation.

Table 1: Demographic Characteristics of the Study Participants (N = 363)

Variable	Category	Frequency	Percent (%)
Age (years)	16–18	160	44.1
	19–21	160	44.1
	22–24	35	9.6
	25–27	8	2.2
Gender	Male	61	16.8
	Female	302	83.2
Father's Occupation	Government Employee	124	34.2
	Private Employee	114	31.4
	Business	87	24.0
	Daily Wager	36	9.9
	Other	2	0.5
Mother's Occupation	Government Employee	55	15.2
	Private Employee	3	0.8
	Business	1	0.3
	Housewife	303	83.5
	Other	1	0.3
Father's Education	Primary	41	11.3
	Middle	165	45.5
	Secondary	108	29.8
	Higher Education	49	13.5
Mother's Education	Primary	12	3.3
	Middle	186	51.2
	Secondary	126	34.7
	Higher Education	39	10.7
Family Size	2–4 members	56	15.4
	5–8 members	248	68.3
	9–12 members	47	12.9
Monthly Family Income (PKR)	30,000–60,000	111	30.6
	60,001–90,000	70	19.3
	90,001–120,000	142	39.1
	120,001–150,000	40	11.0
Residential Area	Rural	176	48.5
	Urban	187	51.5

The demographic characteristics of participants were described in Table 1. The results indicated that most students were aged between 16 and 21 (88.2%), indicating a population of mostly younger people. The majority of participants were female (83.2%), showing a gender bias in the

study. In terms of occupations, Americans fathers were mainly government employers (34.2%) or employed in the private sector (31.4%). Most mothers were housewives (83.5%). In terms of educational level, most fathers completed middle level education (45.5%) and mothers completed middle level (51.2%) and secondary level education (34.7%). Most families were medium sized with five to eight members (68.3%), where in terms of income most families earn between PKR 30,000 and 120,00 per month (89%) where the majority were classified between PKR 90,001 – 120,000. About equal numbers of students lived in urban (51.5%) and rural (48.5%) areas. Overall, the significant demographics are a predominately young, female, middle income, student population with moderately educated parents and medium sized family.

Measures

The study variables measured through the following measures including Social Media addiction with subscales (i.e., fear of missing out, techno stress, excessive scrolling, online relationships). The other scale is offline social connectedness including subscales (i.e., family relations, social capital, social participation). The third scale is life satisfaction including subscale (i.e., subjective wellbeing and personal growth). The all three measures used four-point Likert scale. Following tables showed the items and alpha reliability of subscales.

Table 2: Alpha reliability for sub-scales

Sr. No	Variables	Items	Alpha Values
Social Media Addiction	Fear of Missing Out	6	.690
	Techno Stress	5	.580
	Excessive Scrolling	6	.544
	Online Relationships	6	.482
Offline Social Connectedness	Family Relations		
	Social Capital	6	.553
	Social Participation	6	.592
Life Satisfaction	Subjective Well-being	8	.577
	Personal Growth	7	.632

Procedure

The researcher visited the various department of university for data collection. The researcher provides sufficient information concerning the reason for the research and handed over the questionnaire to students. The participants were also guided through the questionnaire and their coding categories; they were also given information about how to give a response to each item. Data has been collected from students. The same process was followed with every respondent to collect data. A total of 363 questionnaires were circulated to the respondents according to the sample size of the study. The response rate of this questionnaire is very good. Every student likes the questions and reads deeply and then fill it. No questionnaire was misplaced and every student fill and returned it. That's why the response rate is 100%. The data was entered and analyzed through and SPSS and AMOS to prepare final report.

Results

This section elaborated the statistical analysis used in the current study. The main objective of the study was to test the social media addiction (independent) and offline social connectedness in life satisfaction (dependent) among students and the relation between them. The analysis of the study was based on student data, collected with the help of well well-structured questionnaire. It was administered to 363 university students.

Table 3: Correlations of social media addiction, offline social connectedness, and life satisfaction

Variables	Social media Addiction	Offline Social Connectedness	Life Satisfaction
Social media Addiction	-	.232**	.135**
Offline Social Connectedness		-	.289**
Life Satisfaction			-

Note. ** $p < .01$

The above table shows Social Media Addiction & Offline Social Connectedness ($r = 0.232$, $p = 0.000$) There is a weak but statistically significant positive correlation between Social Media Addiction and Offline Social Connectedness. This suggests that as social media addiction increases, offline social connectedness tends to increase slightly. However, the Relationships are not strong. Social Media Addiction & Life Satisfaction ($r = 0.135$, $p = 0.000$).

There is a very weak but statistically significant positive correlation between Social Media Addiction and Life Satisfaction. This suggests that as social media addiction increases, life satisfaction increases slightly, but the relationship is weak. Offline Social Connectedness & Life Satisfaction ($r = 0.289$, $p = 0.000$). There is a moderate and statistically significant positive correlation between Offline Social Connectedness and Life Satisfaction. This suggests that individuals with greater offline social connectedness tend to have higher life satisfaction.

Table 4: Correlation of all variables

Variables	1	2	3	4	5	6	7	8	9
1. Fear of Missing Out (FOMO)	—	.349**	.258**	.369**	.101**	.101**	.158**	0.03	0.02
2. Techno Stress		—	.283**	.358**	.192**	.192**	.207**	.117**	.082*
3. Excessive Scrolling			—	.269**	.202**	.202**	.133**	.192**	.154**
4. Online Relationships				—	.117**	.117**	.246**	.131**	.099**
5. Family Relations					—	.117**	.179**	.229**	.256**
6. Social Capital						—	.179**	.229**	.256**
7. Social Participation							—	.231**	.129**
8. Subjective Well-Being								—	.281**
9. Personal Growth									—

Note. ** $p < .01$

As displayed in Table 1, Fear of Missing Out (FOMO) was positively associated with techno stress ($r = .35$, $p < .01$), excessive scrolling ($r = .26$, $p < .01$), and online relationships ($r = .37$, $p < .01$) suggesting that students who experienced higher degrees of FOMO were more likely to report

more technology-related stress, more social media use, and stronger online social relationships. Techno stress was also positively related to excessive scrolling ($r = .28$, $p < .01$) and online relationships ($r = .36$, $p < .01$) indicating that overuse of technology could cause emotional stress and alter social relational patterns.

Furthermore, online relationships positively correlated to family relations ($r = .12$, $p < .01$), social capital ($r = .12$, $p < .01$), and social participation ($r = .25$, $p < .01$), indicating that a digital relationship could reinforce offline social resources. Family relations, social capital, and social participation were also all positively correlated to subjective well-being and personal growth ($r =$ from $.18$ to $.28$, $p < .01$) indicating that students who maintain higher quality relationships on an offline level are reporting stronger well-being and growth.

Online Relationships show significant positive correlations with most variables, with coefficients such as $r = 0.269$ with F-R, and $r = 0.192$ with Personal Growth, all significant at $p < 0.01$. Family Relationships are correlated positively with Social Capital, Social Participation, and Subjective Wellbeing at $p < 0.01$, indicating stronger relationships within these variables. Social Connections has high correlations with S-P and Subjective Wellbeing (both $r = 0.229$, $p < 0.01$), indicating that as one increases, the other tends to increase as well. Social Pressures correlate positively with Subjective Wellbeing and Personal Growth ($r = 0.231$, $r = 0.281$, $p < 0.01$), showing the interconnectedness between these variables. Social Well-being correlates with Personal Growth at $r = 0.281$, with a p -value < 0.01 , suggesting a moderate relationship between the two.

Table 5: Regression Weights of Path Analysis

Predictor Variable	Outcome Variable	Estimate	S.E.	C.R.	p
Social Media Addiction	Offline Social Connectedness	.275	.040	6.905	.001
Offline Social Connectedness	Life Satisfaction	.316	.037	8.478	.001
Social Media Addiction	Life Satisfaction	.055	.030	1.81	.069

Note. *Estimate* = unstandardized regression weight; *S.E.* = standard error; *C.R.* = critical ratio. Social media addiction significantly increased offline social connectedness and indirectly influenced life satisfaction through offline connectedness. $p < .001$ indicates significance at the .001 level

The unstandardized regression weights from the path analysis examining the pathways among social media addiction, offline social connectedness, and life satisfaction are shown in Table 3. Social media addiction positively predicted offline social connectedness ($B = .275$, $p < .001$), suggesting that greater social media use results in greater offline connectedness. Offline social connectedness positively predicted life satisfaction ($B = .316$, $p < .001$), indicating that offline social ties are focused on well-being. However, the direct path from social media addiction to life satisfaction did not reach significance ($B = .055$, $p = .069$), suggesting that this pathway was likely indirect through the offline connectedness factor. Overall, offline social connectedness acted as a mediator in the relationship between social media addiction and life satisfaction.

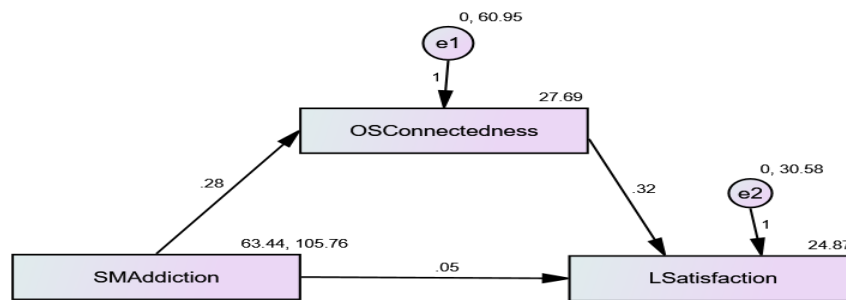


Figure 3: Mediation Analysis of Study Variables

The figure 1 assessed the role of offline social connectedness as a mediator of the effect of social media addiction on life satisfaction. The results revealed that social media addiction significantly positively predicted offline social connectedness, which means that the more social media individuals consumed in a day, the stronger their offline social connections tended to be. The results also showed that offline social connectedness significantly positively predicted life satisfaction, thereby indicating the relevance of social relationships in well-being. There was no significant direct path from social media addiction to life satisfaction, which indicates that social media use does not necessarily contribute to an increase in life satisfaction, but instead has its influence indirectly through offline social connectedness. Overall, the results indicated that social media addiction has been found to add to the increased life satisfaction observed for individuals who engage with social media overall offline interpersonal relationships.

Discussion

The present study was aimed to examining the relationship between offline social connectedness and life satisfaction among students, and the study's primary goal was to evaluate the relationships between each component of the independent and dependent variables in the suggested framework for path analysis. Social media is harmful. On social media, there is more harmful content due to their privacy policies. As O'Keeffe and Clarke-Pearson (2011) revealed in their research that social media had a more harmful effect. It involves using harmful content without being aware of the privacy policies. They added that there has been an increase in online cyberbullying since the rise of social media.

The recent study examined, excessive use of social media in the students. Due to this, the findings of the research presented that they changed from their offline social connections, and their demands for offline social connections also change. In lines with the above findings, Cookingham and Ryan (2015) are found that excessive social media use can negatively impact adolescents' sense of community and potentially lead to issues in their social relationships. the researcher Borca et al. (2015) also state that technology use has changed the nature of relationships in today's society. Youth are becoming more addicted to the internet as a developmental tool to help them meet their demands for only online social connections not face to face connections.

The current study found also that as social media addiction increases, offline connectedness is likely to be affected. However, the model only explains a small portion of the variation in social connectedness, suggesting that other unmeasured factors may also play a significant role in shaping students' offline social connections. Therefore, social media addiction is not the sole determinant of offline social connectedness in regression model. The above findings supported by the Apaolaza et al. (2013), the research found that no significant correlation between social media addiction and offline social connectedness, the study indicating that the use of social networking sites does not directly impact life satisfaction but a positive impacts on offline social connectedness. This research confirming previous findings that social media addiction is not a significant factor for life satisfaction but offline connectedness. Wang et al. (2019) found that those with higher life satisfaction levels who were passively addicted to social media were more likely to experience envy, which was linked to more signs of depression. The person who is addicted to social media their needs that are also changed. They see new trends on social media they also want to adopt these trends if their financial condition is not good, and they are unable to adopt these trends, they become depressed.

The research findings showed that social media addiction changed student's interaction patterns in relation to social connections when they excessive use of social media they distracted from their life goals and not their academic work on time. The findings line with researcher Khan et al. (2024) discovered that social media addiction has changed how students interact and build connections, but when they are misused, they become more and more distracted from their academic goals, which calls for further research into the many repercussions of social media addiction. Offline social connections are better compared to online social relations because it increases the confidence level due to face-to-face interaction. Strong offline social connectedness decrease stress level and while online social connectedness results in social isolation and life happiness as explained by Grieve et al. (2013), the strong offline bonds have been linked in studies to improved resilience, lower stress levels, and general psychological well-being. On the other hand, overuse of the internet can occasionally take the place of in-person conversations, which weaken offline social ties and life happiness. According to research, overuse of digital technologies might result in social isolation even if they can improve virtual connectedness.

The study found by Su and He (2024), a significant correlation between university student's subjective well-being and social media addiction, highlighting the mediating role of social capital, life happiness in this social relationship. While addiction may not immediately negatively impact well-being, and life satisfaction, it can lead to a reduction in subjective well-being and indirectly influence loneliness. The findings suggest that reducing smartphone addiction can improve students' subjective well-being, potentially benefiting teachers in higher education.

Conclusion

This research on offline social connectedness and life satisfaction among Students. The role of social media addiction sheds light on the crucial factors influencing social media addiction among students in higher education. The results revealed that offline social connectedness and life satisfaction have moderate and statistically significant positive correlations, suggesting that individuals with greater offline social connectedness tend to have higher life satisfaction. The regression results show that offline social media addiction has a statistically significant relationship with social connectedness, with a moderate positive relationship between social media addiction and the dependent variable. Path analysis results show that life happiness and social media addiction are both significantly predicted by life satisfaction, but the result is only marginally

significant. This suggests that offline connectedness positively influences life satisfaction directly, but not through social media addiction.

Limitations of the study

The study uses a cross-sectional design, capturing data at a single point in time, which limits the ability to infer causality between social media addiction, offline social connectedness, and life satisfaction. Data was collected through self-report questionnaires, which may be subject to bias. The sample may not fully represent the broader student population, and the findings may not be generalizable. The study does not track changes in social media usage, connectedness, or life satisfaction over time, which could provide a better understanding of long-term effects or developmental patterns. The constructs, such as social media addiction and offline social connectedness, depend on the validity and reliability of the scales used.

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