



Research Article

Prevalence and Factors Associated with Social Media Addiction Among Medical and Allied Science Students of Purbanchal University, Nepal: A Cross-Sectional Study

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Abstract

Social media addiction (SMA) is an increasingly recognized problem among university students worldwide, with limited data available from Nepal. This descriptive cross-sectional study aimed to determine the prevalence of SMA and its associated socio-demographic and behavioural factors among Medical and Allied Science students of Purbanchal University. It was conducted between June and November 2019 among 422 students purposively sampled from four colleges affiliated to Purbanchal University, using a pre-tested, self-administered structured questionnaire comprising 15 socio-demographic items and 8 items on internet/social media use; SMA was operationally defined as social media use exceeding 3 hours per day, and data were analyzed in SPSS v20 using frequencies, percentages, and the chi-square test, with $p < 0.05$ considered statistically significant. Of the 422 respondents, 96.2% used social media accounts and 33.9% met criteria for SMA. Facebook was the most used platform (31.4%) and Twitter the least used (7.5%). The majority (78.9%) had used social media for 3 years or more, and the commonest reason for use was to stay connected with people (55.5%). SMA was significantly associated with receiving pocket money from parents ($p = 0.019$), having an internet connection at home ($p = 0.003$), possessing a social media account ($p = 0.043$), duration of social media use ($p < 0.001$), and use of Google ($p = 0.030$), while no significant association was found with age, sex, religion, ethnicity, family type, parental education/occupation, marital status, employment status, or perceived family relationship. Overall, approximately one in three Medical and Allied Science students at Purbanchal University showed features of social media addiction, with home internet access, pocket money, longer duration of use, and account ownership emerging as the principal correlates; targeted awareness programmes and campus-level policy measures are recommended to address this emerging public health concern.

Keywords

Social Media Addiction, Internet Addiction, University Students, Nepal, Cross-Sectional Study

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1. Introduction

Research into internet addiction has grown dramatically since the mid-1990s, with an increasing number of cases identified among university students by university healthcare professionals [1, 2]. Social media represents a means of maintaining interpersonal relationships in virtual form [3], and a large part of the current generation's social and emotional development now occurs online [4, 5]. The term "Internet addiction" was first proposed by Dr. Ivan Goldberg in 1996 to describe pathological, compulsive internet use [6, 7]. Excessive and uncontrolled use of the internet and social networking sites (SNSs) can lead to detrimental physical, emotional, and social effects [8-10].

University students have particularly wide and easy access to the internet through mobile devices and laptops, enabling near-constant connectivity regardless of location [11]. Globally, active social media users account for an estimated 29% of the world's population, with usage rates markedly higher among adolescents and young adults than other age groups [1, 12]. In Nepal, internet penetration rose from under 2% in 2010 to approximately 15% by 2014, driven substantially by the growing popularity of platforms such as Facebook, Twitter, and Instagram [13-15].

The excessive use of SNSs has been linked to anxiety, depression, and social isolation in several studies [11, 16, 17]. Despite the scale of the problem globally, social media addiction remains a comparatively under-researched area in the Nepalese context.

1.1. Objectives

The general objective of this study was to determine the prevalence of social media addiction and the factors associated with it among Medical and Allied Science students of Purbanchal University. The specific objectives were: (i) to determine the prevalence rate of social media addiction among the study population, and (ii) to identify the socio-demographic and behavioural factors associated with social media addiction.

1.2. Significance of the Study

Understanding the prevalence and associated factors of social media addiction among university students is important for informing policy makers, planners, and college administrations in designing timely awareness and prevention programmes. Findings from this study may help guide campus-level policies and media literacy initiatives tailored to the Nepalese higher-education context, where evidence on this emerging public health concern remains scarce.

2. Materials and Methods

2.1. Study Design and Setting

A descriptive cross-sectional study was conducted among students of colleges affiliated to Purbanchal University, over a period from June to November 2019.

2.2. Study Population and Sample Size

The study population comprised Medical and Allied Science students of Purbanchal University. In the absence of prior local prevalence data, a conservative prevalence of 50% was assumed. Sample size was calculated using the formula $n = z^2pq/d^2$, where $p = 50\%$, $q = (1-p)$, z = value corresponding to 95% confidence interval, and $d = 5\%$ margin of error. After adjusting for an anticipated 10% non-response rate, the final sample size was 422 students.

2.3. Sampling Technique

A non-probability, purposive sampling technique was used. The colleges affiliated to Purbanchal University were visited by the researcher for on-site data collection.

2.4. Data Collection Tool and Technique

Primary data were collected using a self-administered, structured questionnaire developed following literature review and consultation with the research supervisor and subject experts. The questionnaire was originally developed in English and translated into Nepali for ease of comprehension. It was pre-tested among 10% of the total sample in a comparable college setting, and cross-checked for data quality. The tool comprised two parts: Part I with 15 items on socio-demographic characteristics, and Part II with 8 items relating to internet and social media use. Approximately 15 minutes was allotted per respondent.

2.5. Operational Definition

Social Media Addiction (SMA): Students who reported spending more than 3 hours per day on social media were classified as addicted.

2.6. Ethical Consideration

Ethical approval was obtained from the Department of Research and Development, Asian College for Advanced Studies, prior to data collection. Written informed consent was obtained from all participants, and confidentiality of information was maintained throughout the study.

2.7. Inclusion and Exclusion Criteria

Bachelor-level Medical and Allied Science students willing to participate were included. Students absent on the day of data collection and those who did not sign the consent form were excluded.

2.8. Statistical Analysis

Data were entered in EpiData, cleaned, coded, and transferred to SPSS version 20 for analysis. Descriptive statistics (frequencies and percentages) were used to summarise socio-

demographic and behavioural variables. The chi-square test was applied to assess association between social media addiction and socio-demographic/behavioural characteristics; $p < 0.05$ was considered statistically significant.

3. Results

Of the 422 students approached, a 100% response rate was achieved. Respondents were aged 18-40 years and were drawn from different faculties and years of study at four colleges affiliated to Purbanchal University.

Table 1. Socio-Demographic Characteristics of the Respondents (n=422).

Characteristic	Category	Frequency (n)	Percentage (%)
Age group (years)	15–19	82	19.4
	20–25	319	75.6
	≥26	21	5.0
Sex	Male	159	37.7
	Female	263	62.3
Religion	Hindu	372	88.2
	Buddhist	38	9.0
	Christian	7	1.7
	Muslim	5	1.2
Ethnicity	Chhetri	123	29.1
	Brahmin	120	28.4
	Janjati	120	28.4
	Others (incl. Dalit)	59	14.0
Family type	Nuclear	293	69.4
	Joint	129	30.6
Marital status	Unmarried	373	88.4
	Married	49	11.6
Currently employed	Yes	71	16.8
	No	351	83.2
Receives pocket money	Yes	374	88.6
	No	48	11.4
Perceived family relationship	Good/Very good	403	95.5
	Fair/Not good	19	4.5

Table 1 shows that the majority of respondents (75.6%) belonged to the 20–25-year age group, followed by 19.4% aged

15–19 years and 5.0% aged 26 years or above. Female respondents (62.3%) outnumbered males (37.7%). Most re-

spondents followed the Hindu religion (88.2%), and the largest ethnic group was Chhetri (29.1%), closely followed by Brahmin and Janjati (28.4% each), while Muslim and Dalit groups together comprised the smallest proportion. The majority (69.4%) belonged to nuclear families, and most respondents were unmarried (88.4%) and not engaged in any

part-time or full-time job (83.2%). A large majority (88.6%) received pocket money from their parents, and nearly all (95.5%) perceived their relationship with family as good or very good.

Table 2. Internet and Social Media use Characteristics of the Respondents (n=422).

Characteristic	Category	Frequency (n)	Percentage (%)
Internet connection at home	Yes	378	89.6
	No	44	10.4
Visits cyber café for internet	Yes	56	13.3
	No	366	86.7
Has a social media account	Yes	406	96.2
	No	16	3.8
Uses Google	Yes	413	97.9
	No	9	2.1
Duration of SM use	<6 months	20	4.7
	~1 year	19	4.5
	~2 years	50	11.8
	≥3 years	333	78.9
Time spent on SM/day	<1 hour	23	5.5
	1 hour	63	14.9
	2 hours	86	20.4
	3 hours	107	25.4
	4 hours	55	13.0
	≥5 hours	88	20.9
Reason for SM use*	To stay connected	308	55.5
	Fun	138	24.9
	Others	88	15.9
	Peer pressure	21	3.8
Most used platform*	Facebook	397	31.4
	Instagram	277	21.9
	Viber	262	20.7
	Snapchat	131	10.4
	Others	101	8.0
	Twitter	95	7.5

*Multiple responses permitted; percentages based on total responses.

Table 2 shows that 89.6% of respondents had internet connectivity at home, and only 13.3% relied on cyber cafés for

internet access. Nearly all respondents (96.2%) held a social media account, and almost all (97.9%) used Google. Facebook

was the most subscribed platform (31.4%), followed by Instagram (21.9%) and Viber (20.7%), while Twitter was the least used (7.5%). The majority (78.9%) had been using social media for 3 years or more. Regarding daily usage, the largest proportion of respondents spent 3 hours per day on social media

(25.4%), followed by 5 hours or more (20.9%), while only 5.5% spent less than an hour daily. Staying connected with people was the most common reason for social media use (55.5%), while peer pressure was the least cited reason (3.8%).

Table 3. Prevalence of social media addiction (n=422).

Category	Frequency (n)	Percentage (%)
Non-addict	279	66.1
Addict (>3 hours/day)	143	33.9

Table 3 shows that out of 422 respondents, 33.9% (n=143) met the criteria for social media addiction (use exceeding 3 hours per day), while the remaining 66.1% (n=279) were classified as non-addicted.

Table 4. Association Between Socio-Demographic Characteristics and Social Media Addiction.

Characteristic	Category	Non-addict n (%)	Addict n (%)	p-value
Age of participants	Age 15–19	55 (13.0)	27 (6.4)	0.315
	Age 20–25	207 (49.1)	112 (26.5)	
	Age ≥26	17 (4.0)	4 (0.9)	
Gender	Male	112 (26.5)	47 (11.1)	0.144
	Female	167 (39.6)	96 (22.7)	
Religion	Hindu	249 (59.0)	123 (29.0)	0.311
	Non-Hindu	30 (7.1)	20 (4.7)	
Ethnicity	Brahmin/Chhetri	160 (37.9)	83 (19.7)	0.443
	Janjati	76 (18.0)	44 (10.4)	
	Others	43 (10.2)	16 (3.8)	
Type of family	Nuclear family	186 (44.1)	107 (25.4)	0.085
	Joint family	93 (22.0)	36 (8.5)	
Marital status	Unmarried	242 (57.3)	131 (31.0)	0.139
	Married	37 (8.8)	12 (2.8)	
Employment status	Employed	51 (12.1)	20 (4.7)	0.640
	Not employed	228 (54.0)	123 (29.0)	
Gets pocket money	Yes	240 (56.9)	134 (31.8)	0.019*
	No	39 (9.2)	9 (2.1)	
Family relationship	Good relationship	277 (65.6)	143 (33.9)	0.310
	Not good	2 (0.5)	0 (0.0)	

*Statistically significant (p<0.05).

Table 4 shows that among all the socio-demographic char-

acteristics examined, only receipt of pocket money from parents was significantly associated with social media addiction

($p=0.019$). Age, sex, religion, ethnicity, family type, marital status, employment status, and perceived family relationship

showed no statistically significant association with addiction status ($p>0.05$ for all).

Table 5. Association between internet/social media-related variables and social media addiction.

Characteristic	Category	Non-addict n (%)	Addict n (%)	p-value
Internet at home	Yes	241 (57.1)	137 (32.5)	0.003*
	No	38 (9.0)	6 (1.4)	
Visits cyber café	Yes	36 (8.5)	20 (4.7)	0.756
	No	243 (57.6)	123 (29.1)	
Has SM account	Yes	265 (62.8)	141 (33.4)	0.043*
	No	14 (3.3)	2 (0.5)	
Duration of SM use	<6 months	19 (4.5)	1 (0.2)	<0.001*
	~1 year	18 (4.3)	1 (0.2)	
	~2 years	46 (10.9)	4 (0.9)	
	≥ 3 years	196 (46.4)	137 (33.9)	
Uses Google	Yes	270 (64.0)	143 (33.9)	0.030*
	No	9 (2.1)	0 (0.0)	

*Statistically significant ($p<0.05$).

Table 5 shows that internet connection at home ($p=0.003$), possession of a social media account ($p=0.043$), duration of social media use ($p<0.001$), and use of Google ($p=0.030$) were all significantly associated with social media addiction. Visiting a cyber café to access the internet showed no significant association with addiction status ($p=0.756$).

4. Discussion

This study assessed the prevalence and correlates of social media addiction among 422 Medical and Allied Science students of Purbanchal University, achieving a 100% response rate.

The mean age of respondents was approximately 22 years, with females (62.3%) outnumbering males (37.7%), a pattern consistent with findings from a similar study conducted at a university in Myanmar [11] and among medical students elsewhere [18]. In contrast, a study conducted in Iran found no association between age or sex and SMA [17], broadly concordant with the present findings that neither age nor sex was significantly associated with addiction status.

The majority of respondents belonged to Hindu religion (88.2%) and Chhetri ethnicity (29.1%), and most (69.4%) came from nuclear families. Most respondents (88.4%) were unmarried, 83.2% were unemployed, and 88.6% received pocket money from their parents. Notably, receiving pocket money was significantly associated with SMA ($p=0.019$), sug-

gesting that greater discretionary spending capacity potentially linked to device or data affordability may facilitate heavier social media use.

Nearly 90% of respondents had internet access at home, and only 13.3% relied on cyber cafés, reflecting the high penetration of home-based connectivity among this population. Social media account ownership was near-universal (96.2%), with only 3.8% reporting no subscription. Facebook was the most used platform (31.4%), followed by Instagram, Viber, and Snapchat, while Twitter was the least used (7.5%). In a comparable study conducted in Ghana, WhatsApp was found to be the most popular platform, followed by Facebook, Twitter, Instagram, and Skype [19], indicating some regional variation in platform preference. Broadly comparable patterns of social media usage have also been reported among university students in Malaysia [20] and pre-university students in urban Bengaluru, India [21], suggesting broadly similar social media usage behaviours among young people across the region. Google use was reported by 97.9% of respondents, underscoring the pervasiveness of internet-based information-seeking in this population.

The overall prevalence of social media addiction in this study was 33.9%, calculated on the basis of self-reported daily time spent on social media. This is notably higher than the 27.5% prevalence reported among Kyaukse University students in Myanmar using a similar approach [11], and falls within the range of variation reported internationally, where adolescent internet addiction prevalence has been documented

between 7.9% and 22.8% in multicentre studies, and as high as 43.7% among university students in Iran [11]. A recent systematic review and meta-analysis of university students worldwide similarly reported wide variation in social media addiction prevalence across countries and measurement tools [22], while a more recent school-based study from Kathmandu, Nepal, reported an even higher prevalence of over 50%, underscoring that this remains an evolving and substantial public health concern in the Nepalese context [23].

Significant associations were observed between SMA and receiving pocket money from parents ($p=0.019$), having internet access at home ($p=0.003$), possessing a social media account ($p=0.043$), duration of social media use ($p<0.001$), and use of Google ($p=0.030$). These findings align with prior literature identifying living arrangement, pocket money, peer pressure, parental permissiveness, and curiosity as key drivers of problematic social media engagement among young people [4]. No significant associations were found for age, sex, religion, ethnicity, family type, parental education or occupation, marital status, employment status, or perceived quality of family relationship, in contrast to some studies that have reported poorer parent-child relationships among internet-addicted individuals [24].

These findings reinforce that access-related and behavioural factors rather than fixed demographic characteristics appear to be the principal correlates of social media addiction in this population, a pattern broadly consistent with the wider literature on internet and social media addiction among university students [11, 17, 25].

5. Conclusions

Approximately one in three Medical and Allied Science students of Purbanchal University demonstrated features of social media addiction, defined as more than 3 hours of daily use. Three-quarters of students had home internet access, and virtually all used Google and held at least one social media account, with Facebook being the most subscribed platform. Social media addiction was significantly associated with receiving pocket money, home internet access, account ownership, duration of use, and Google use, while socio-demographic factors such as age, sex, and family background showed no significant association.

Given the substantial proportion of students affected, media literacy and advocacy programmes, campus-based workshops on healthy social media use, and awareness initiatives targeting students, parents, and policy makers are recommended. Educational institutions may also consider structured guidance on managing internet access within academic settings. Future research using validated psychometric addiction scales [26], probability-based sampling, and larger sample sizes is warranted to strengthen the evidence base in the Nepalese context.

Abbreviations

SMA	Social Media Addiction
SNS	Social Networking Site (s)
SPSS	Statistical Package for the Social Sciences

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Author Contributions

Simran Upadhyay: Conceptualization, Data curation, Investigation, Methodology, Project administration, Writing – original draft

Rajendra Lamichhane: Data curation, Formal Analysis, Writing – review & editing

Dip Bahadur Singh: Formal Analysis, Project administration, Supervision, Validation, Writing – review & editing

Data Availability Statement

The data is available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

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