

Social Media Use and its Association with Sexual Practices among Undergraduate students in a Private Medical University at Solan, Himachal Pradesh

Arjit Kumar¹

¹Associate Professor, Department of Community Medicine, Veer Chandra Singh Garhwali Government Institute of Medical Sciences and Research, Srinagar, Pauri Garhwal, Uttarakhand, India.

Correspondence : Dr Arjit Kumar, Email: drarjitkumar@gmail.com

Abstract:

Introduction: Social networking has become integral to the intellectual and social lives of the young populace. Their often unrestricted access to sexually explicit content and associated adverse sexual health constitute key outcomes in public health research. **Objectives:** To determine the association between social media use and various sexual practices among undergraduate students in a private medical university at Solan, Himachal Pradesh. **Method:** We enrolled 300 undergraduates, using random sampling technique in the present cross sectional study. Data were collected using semi-structured questionnaire and data analysis employed statistical package for social sciences version 22.0. Chi-square test was used to determine association between variables and $p \text{ value} \leq 0.05$ was considered as statistically significant. **Results:** The mean age of respondents was 21.85 ± 2.63 years. Majority of the respondents have heard about social media ($n=299, 99.7\%$) and majority have received information from friends/peers (79%). The commonest reason for non-use of social media for sexually explicit content was lack of interest (54.3%). The mean age at sexual debut was 17.44 ± 2.63 years. There was statistically significant association between use of social media for sexually explicit content and being sexually active ($p=0.000$), type of sexual acts practiced ($p=0.003$) and number of sexual partners ($p=0.000$). **Conclusion:** There is need for improved multi- sectoral measures (formal comprehensive sex education, peer education programs, school mini-media clubs and targeted behavior change intervention), Media and internet literacy education to control viewing of social media for sexually explicit content, while ensuring that young people's access to sexual health educational content is not compromised.


Key words: Sexual Practices, Social Media, Undergraduate

Introduction:

Several theories of media effects have documented the central place of content on influence of the media. One key source of risks from the manner in which humans experience and express their sexuality, is exposure to social media with

sexually explicit content.^[1] Emerging evidence also suggests that social media affects sexual practices among young people.^[2-5]

“Social media (or social networking) are interactive computer-mediated technologies that facilitate the creation and sharing of information,

Quick Response Code	Access this article online	How to cite this article : Kumar A. Social media use and its association with sexual practices among undergraduate students in a private medical university at Solan, Himachal Pradesh. Healthline. 2021; 12(1):37-45.
	Website : www.healthlinejournal.org	
	DOI : 10.51957/Healthline_164_2020	

ideas, careers, interest and other forms of expression via virtual communities and networks.”^[6] Since the advent of social networking sites, classmate.com, in 1995 and six degrees; in 1997, a plethora of social interaction outlets has flooded the internet space.^[6-8] These include: Facebook, WhatsApp, Twitter, etc.^[9]

A paradigm shift in the delivery of digital interventions was the launch of internet access via smartphones and the development of apps for these phones.^[10] Researchers have reported increasingly easy access to sexually explicit content on the social media, coupled with dwindling sexuality education at homes or schools.^[11] They noted that social media can serve as useful tool in behaviour-change initiative received by digital routes.^[10] For instance, digital media interventions which are interactive and tailored (meaning that users receive tailored feedback in response to the input of person- specific relevant data), as active engagement with intervention and receipt of information that is of user-specific relevance is more likely to enhance consolidation of learning and behaviour change^[10,12]

In this era of social media, commonly referred to as web 2.0,^[13] acts such as meeting partners online, pornography online sexting (the sending of sexually explicit materials) are unlikely to convey positive sexual health messages.^[10]

It is not unusual for social media users to be exposed to the risks, excessive masturbation, unprotected sexual act and multiple sexual partnerships at an early age.^[11,14] This trend had brought concerns among school authorities, parents, communication experts and other relevant stakeholders on the benefits and potential risks facing undergraduates, as they engaged in online social networking to meet their social and educational needs.^[15,16]

Not much is known of the relationship between the social media use and sexual practices among undergraduates in Solan, Himachal Pradesh.^[2,11] Information about sexual practices is essential to the design and assessment of digital interventions to

improve sexual health.^[17,18] The findings of this study will help educate the populace on healthful use of social media and as such bridge the knowledge gap on the associations between social media use and risky sexual practices. It will provide information for policy makers, government and non-government organizations working on young undergraduates sexuality issues. It is against this backdrop that the researchers designed this study to determine the use of social media and its association with risky sexual practices among undergraduate students in a private faith-based tertiary medical educational institution.

Method:

The present cross sectional descriptive study was done at MM Medical College & Hospital which was established in 2013 as a constituent Institute of Maharishi Markandeshwar University, Solan. The study population comprised of all the medical students who were undertaking an undergraduate regular program at MMMC&H for at least one year.

The sample size was determined using the formula $n = Z^2 pq / d^2$ ^[19] where n= minimum sample size; Z=standard normal deviate at 95% confidence interval set at 1.96; p=prevalence in a previous study; q=1 -p; d=degree of precision (0.05); Thus using a prevalence from previous study done at Osogbo metropolis, Nigeria, which showed 73.5% as the prevalence rate,^[2] the sample size was estimated as 269.0. Assuming 10% non response rate, the final sample size was approximately 300 students. Simple random sampling technique using a table of random numbers, was applied to select 300 participants from 3000 medical under-graduates.

Data were collected using pre-tested, semi-structured questionnaires developed from review of relevant literatures. All questions were written in English language and pre-tested at a site different from the study site. Thereafter the instruments were reviewed and necessary corrections were made.

Variables comprised of socio-demographic variables such as respondent's age, gender, religion,

tribe, etc., awareness, reason for social media use and various sexual practices. The data were edited and entered into the computer. Data cleaning was done by carrying out range and consistency checks. Descriptive and analytical statistics of the data were carried out using International Business Machine/statistical package for social sciences (IBM/ SPSS) Windows version 22.0 (22). Descriptive data were presented as simple frequencies and percentages. Tests of statistical significance were carried out using Chi square tests; p value of ≤ 0.05 was considered statistically significant.

Results:

Three hundred medical under-graduates were approached and questionnaires were distributed. The response rate was thus analyzed to be 100%. The mean age of respondents was 21.85 ± 2.63 years. The modal age group was 21-26 years (40.7%), majority (64.7%) were females, were never married (93.7%) and were Christians (97.3%). (Table-1)

Table 1: Distribution of the respondents by socio-demographic characteristics

Characteristics	Frequency (N=300)	Percentage (%)
Age (in years)		
16 - 20	110	36.7
21 - 25	149	49.7
26 - 30	41	13.6
No	139	66.19
Gender		
Male	106	35.3
Female	194	64.7
Marital status		
Never married	281	93.7
Currently married	17	5.7
Divorced/separated	1	0.3
No response	1	0.3
Religion		
Christianity	292	97.3
Islam	7	2.4
Traditional religion	1	0.3
Ethnicity		
Rawat	206	68.9
Uniyal	35	11.7
Hausa	8	2.7
Others	80	16.7

Majority of the respondents have heard about social media (n=299, 99.7%) and majority of the respondents have received information

from friends/peers (79%). The commonest reason for non-use of social media for sexually explicit content was lack of interest (54.3%).

Table 2: Distribution of the respondents by awareness and social media usage practices

Variables	Frequency (N=300)	Percentage (%)
Sources of information on Social media*		
Friends/Peers	237	79
School	155	51.7
Television	121	40.3
Siblings	102	34
Radio	82	27.3
Printmedia	62	20.7
Parents	55	18.3
No	139	66.19
Ever used Social media (N =299)		
Yes	286	95.7
No	13	4.3
Reasons for use of social media*(n=286)		
Access news	208	72.7
Academics	182	63.6
Sex movies and pornography	173	60.5
Access sexual health educational content	111	38.8
Emails	111	38.8
Games	105	36.7
Sports	31	10.8
Access social media for sexually explicit content		
Yes	173	57.6
No (for other reasons)	113	37.7
Commonest reason for not accessing Social media for Sexually explicit content (n=113)		
Not interested	62	54.9
It is inappropriate	25	21.8
It is against my faith	20	18
Restrictions on campus	3	2.7
It is addictive	2	1.8
Do not own a smartphone	1	0.8

*Multiple Responses

Table 3: Distribution of respondents by sexual practices

Sexual practices	Frequency (N=153)	Percentage (%)
Ever had sex		
Male	58	37.9
Female	95	62.1
Age at sexual debut, (n=153)		
<5	2	1.3
6-10	5	3.3
11-15	27	17.6
16-20	98	64.1
21-25	17	11.1
26-30	4	2.6
Sexually active (had sex in<3 months)		
Yes	126	82.4
No	27	17.6
Form of sexual acts respondents practice*		
Vaginal/penile	119	77.7
Oral sex	85	55.6
Sexting	58	37.9
Masturbation	47	30.7
Anal sex	36	23.5
Type of sexual acts respondents practice		
Penetrative	100	65.4
Non penetrative	15	9.8
Not specific	38	24.8
Type of sexual partnerships*		
Steady partner (Boy/girlfriend)	113	77.7
Casual contact	68	44.4
Partner met on social media	60	39/2
Commercial sex worker	32	20.9
Number of sexual partnerships		
Single	97	63.4
Multiple	56	36.6
Ever used condoms		
Yes	124	81.1
No	29	18.9
Frequency of condom use		
Consistently	59	47.6
Occasionally	64	51.6
No response	1	0.8

* Multiple Responses

On analysis, there was no statistically significant ($\chi^2=0.90329, p=0.301$). (Table-4)
association between gender and ever having sex

Table 4 : Association of sexual practices with genders

	Ever had sex			Test statistic (χ^2)	p value
Gender	Yes(%)	No (%)	Total (%)	0.9032	0.301
Male	58 (19.3)	48 (16)	106 (35.3)		
Female	95 (31.7)	99 (33)	194 (64.7)		
Total	153 (51)	147 (49)	300 (100)		

Table 5: Association of sexual practices with social media use for sexually explicit content

Sexual practices (n=153)	Accesses Social media for sexually explicit content			χ2 test , p value
	Yes(%)	No (%)	Total (%)	
Ever had sex				
Yes	58 (19.3)	90 (30)	106 (35.3)	0.171 (0.6795)
No	95 (31.7)	83 (27.7)	194 (64.7)	
Total	153 (51)	173 (57.7)	300 (100)	
Sexually active (had sex in<3 months)				
Yes	84 (54.9)	42 (27.5)	126 (82.4)	15.27 (0.000*)
No	7 (4.6)	20 (13)	27 (17.6)	
Total	91 (59.5)	62(40.5)	153 (100)	
Type of sexual acts				
Penetrative	68 (44.4)	32 (21)	100 (65.4)	8.644 (0.003*)
Non penetrative	7 (4.6)	8 (5.2)	15 (9.8)	
Not specific	16 (10.5)	22 (14.3)	38 (24.8)	
Total	91 (59.5)	62 (40.5)	153 (100)	
Number of sexual partners				
Single	73 (47.7)	24 (15.7)	97 (63.4)	27.203 (0.000*)
Multiple	18 (11.8)	38 24.8)	56 (36.6)	
Total	91 (59.5)	62(40.5)	153 (100)	
Use of condoms				
Yes	78 (51)	46 (30.1)	124 (81.1)	2.0025 (0.157)
No	13 (8.5)	16 (10.4)	29 (18.9)	
Total	91 (59.5)	62(40.5)	153 (100)	

* Statistically significant association - $p<0.05$, χ^2 - Chi square test

Discussion:

This cross-sectional descriptive study determined the use of social media and its association with sexual practices among undergraduate medical students. In this study, all but one respondent was aware of social media as compared to 100% awareness in other studies.^[22,23] On the source of information about social media, more than seven in every ten of them heard from friends/peers followed by schools. This is in tandem with the findings of other studies.^[24,25]

From the findings of this study, about 95.3% of respondents reported ever use of social media and the primary reason was access to news, academics, sex movies and pornography. This is also in keeping with the findings of other studies.^[23,24] This study found that majority of the respondents accessed social media for sexually explicit content. Similar reports have been made elsewhere.^[26] The commonest reason for non-use of social media for sexually explicit content was lack of interest which is corroborated by the Media Practice Model, which posits that media use is selective with users focusing on content related to the predominant issues of interest to them.^[26]

Our study found that the mean age at sexual debut was 17.44±2.63 years. This finding relates with the findings of other studies.^[27,28] The current study reported that about 42% (n=126) respondents have engaged in a sexual act in the preceeding three months of the survey. This finding is consistent with the report in another study.^[29]

It is pertinent to note that though 81.1% of the respondents who ever had sexual intercourse reported the use of condoms, only less than half of them were consistent. This practice has also been reported by other studies.^[29] On the other hand, more than seven in every ten of the respondents who ever had sex reported having steady partnerships. Though there were variations in proportions, this finding agrees with reports elsewhere.^[36] About 39.7% of the respondents who ever had sex, had partners met up on social media, while 20.9% patronized commercial sex workers, as reported in other studies.^[2]

In the present study, there was no statistically significant association between ever having sex and gender. However, more female students were found to engage in sexual acts than the males as in other studies.^[30]

The index study found statistically significant associations between use of social media for sexually explicit content and variables such as being sexually active; type of sexual acts practiced, and number of sexual partners. This finding is consistent with the findings of several studies which showed that use of social media for sexually explicit content had influences on users "sexual practices albeit negatively."^[2,5] Implicated in this trend, were factors like the media; especially the social media. Moreover, observational-learning theory suggests that the viewer's characteristics and behavior could be influenced by the character or behavior observed. It thus indicates that exposure to sexual contents on the media could influence reciprocate behavior.^[11] Such content is often discussed and exchanged within social networks.^[26] Our study found no statistically significant association between use of social media for sexually explicit content and use of condoms. While there is dearth of studies on this subject, similar finding was cited by a group of authors.^[31] Further studies are needed in this area.

Conclusion:

This study examined pattern of social media use among undergraduate students in a private university in Solan, Himachal Pradesh and found high awareness of social media with source of information mostly via friends/peers. Access to news, academics and viewing sex movies and pornography were the primary reasons for use of social media. Also, accessing sexually explicit content contributes to risky sexual practices. There was no association between ever had sex and gender. There is need for improved multi- sectoral measures (formal comprehensive sex education, peer education programs, school mini-media clubs and targeted behavior change intervention), Media and internet literacy education to control viewing of social media for sexually explicit content, while ensuring that young people's access to sexual health educational content is not compromised. Students who are heavy users,

should moderate the use of the sites to avoid addiction and create a balance between their offline and online lives while using the sites."This ensures that they assess the quality and source of material that would encourage academic learning and enable them to tackle against the untoward effects of mal-exposures.

Limitations and strength of the study:

Reporting bias and recall bias could result from this study. These biases however, would have been minimized by the self-administration and anonymity entrenched in data collection, assuring the students that their answers would be strictly confidential and be used for research purposes. First, results are based on self-reported, personal data that could be subject to response bias due to social desirability resulting from participants completing surveys in their school/program environment. This was attenuated by research assistants, not affiliated with the program, administering the surveys. Additionally, the use of personal laptop computers and audio capability increases data dependability. A major strength of this study is in the high response rate (100%) achieved.

Declaration:

Funding: Nil

Conflict of Interest: Nil

References:

- Johnston L, O'Malley P, Bachman J, Schulenberg J. Monitoring the Future: National Survey Results on Drug Use- Washington, DC: National Institute on Drug Abuse (NIDA); 1975. pp. 06–5883.
- Kaestle CE, Halpern CT, Miller WC, Ford CA. Young age at first sexual intercourse and sexually transmitted infections in adolescents and young adults. *Am J Epidemiol.* 2005 Apr 15;161(8):774–80. doi: 10.1093/aje/kwi095.
- Lee J, Hahm HC. Acculturation and sexual risk behaviors among Latina adolescents transitioning to young adulthood. *J Youth Adolesc.* 2010; 39(4):414–27. doi: 10.1007/s10964-009-9495-8.
- Erikson E. Eight ages of man. *Klassiekers van de kinder-en jeugdpsychiatrie*. 1967:258.
- Erikson E. Identity and the life cycle: selected papers. New York: International Universities Press; 1959.
- Strauch B. The primal teen: What the new discoveries about the teenage brain tell us about our kids. New York, NY: Knopf Doubleday Publishing Group; 2007.
- Lenhart A. Pew Research Center. 2012. [2017-04-04]. Teens, smart phones & texting <http://www.pewinternet.org/2012/03/19/teens-smartphones-texting/webcite>.
- Brown JD, Halpern CT, L'Engle KL. Mass media as a sexual super peer for early maturing girls. *J Adolesc Health.* 2005 May;36(5):420–7. doi: 10.1016/j.jadohealth.2004.06.003.
- Houlihan D, Houlihan M. Adolescents and the social media: the coming storm. *J Child Adolesc Behav.* 2014;2:e105. doi: 10.4172/jcalb.1000e105.
- Moreno M. Social networking sites and adolescent health: new opportunities and new challenges. *ISJLP.* 2011;7:57.
- Landry M, Vyas A, Turner M, Glick S, Wood S. Evaluation of social media utilization by Latino adolescents: implications for mobile health interventions. *JMIR MhealthUhealth.* 2015 Sep 29;3(3):e89. doi: 10.2196/mhealth.4374. <http://mhealth.jmir.org/2015/3/e89/>
- Berry J. Immigration, acculturation, and adaptation. 1997 Jan;46(1):5–34. doi: 10.1111/j.1464-0597.1997.tb01087.x.
- Livingstone S. Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. 2008;10(3):393–411.
- Moreno MA, Kolb J. Social networking sites and adolescent health. *Pediatr Clin North Am.* 2012 Jun;59(3):601–12. vii. doi: 10.1016/j.pcl.2012.03.023.
- Stockwell MS, Kharbanda EO, Martinez RA, Lara M, Vawdrey D, Natarajan K, Rickert VI. Text4Health: impact of text message reminder-recalls for pediatric and adolescent immunizations. *Am J Public Health.* 2012 Feb; 102(2):e15–21. doi: 10.2105/AJPH.2011.300331.
- Wong CA, Merchant RM, Moreno MA. Using social media to engage adolescents and young adults with their health. *In Healthcare.* 2014 Dec 31;2(4):220–4.
- Borzekowski Dina L G Adolescents' use of the internet: a controversial, coming-of-age resource. *Adolesc Med Clin.* 2006 Feb;17(1):205–16. doi: 10.1016/j.admecli.2005.10.006.
- O'Keeffe GS, Clarke-Pearson K, Council OC. The impact of social media on children, adolescents, and families. *Pediatrics.* 2011 Apr;127(4):800–4. doi: 10.1542/peds.2011-0054.
- Landry M, Gonzales FA, Wood S, Vyas A. New media use and sexual behavior among Latino adolescents. *Am J Health Behav.* 2013 May;37(3):422–30. doi: 10.5993/AJHB.37.3.15.
- Frank S. Hyper-texting and hyper-networking examining why too much texting and social networking is associated with teen risk behavior. 141st APHA Annual Meeting and Exposition; November 2-6, 2013; Boston, MA. 2013. Nov 05,
- Deptula DP, Henry DB, Schoeny ME. How can parents make a difference? longitudinal associations with adolescent sexual behavior. *J Fam Psychol.* 2010 Dec;24(6):731–9. doi: 10.1037/a0021760.
- Di Clemente RJ, Wingood GM, Crosby RA, Sionean C, Cobb BK, Harrington K, Davies SL, Hook EW, Oh MK. Sexual risk behaviors associated with having older sex partners: a study of black adolescent females. *Sex Transm Dis.* 2002 Jan;29(1):20–4.

23. Huebner AJ, Howell LW. Examining the relationship between adolescent sexual risk-taking and perceptions of monitoring, communication, and parenting styles. *J Adolesc Health*. 2003 Aug;33(2):71-8.
24. Killoren SE, Deutsch AR. A longitudinal examination of parenting processes and Latino youth's risky sexual behaviors. *J Youth Adolesc*. 2014 Dec;43(12):1982-93. doi: 10.1007/s10964-013-0053-z.
25. Wight D, Williamson L, Henderson M. Parental influences on young people's sexual behaviour: a longitudinal analysis. *J Adolesc*. 2006 Aug;29(4):473-94. doi: 10.1016/j.adolescence.2005.08.007.
26. DeGraaf H, Vanwesenbeeck I, Woertman L, Meeus W. Parenting and adolescents' sexual development in western societies. *European Psychologist*. 2011 Jan;16(1):21-31. doi: 10.1027/1016-9040/a000031.
27. Vyas AN, Landry M, Schnider M, Rojas AM, Wood SF. Public health interventions: reaching Latino adolescents via short message service and social media. *J Med Internet Res*. 2012 Jul 12;14(4):e99. doi:10.2196/jmir.2178. <http://www.jmir.org/2012/4/e99/>
28. Gil A, Vega W, Dimas J. Acculturative stress and personal adjustment among Hispanic adolescent boys. *J Community Psychol*. 1994;22(1):43-54. doi: 10.1002/1520-6629(199401)22:1<43::AID-JCOP2290220106>3.0.CO;2-T.
29. Kerr M, Beck K, Shattuck TD, Kattar C, Uriburu D. Family involvement, problem and prosocial behavior outcomes of Latino youth. *Am J Health Behav*. 2003;27Suppl 1:S55-65.
30. Pfeifer J, Masten C, Moore W, Oswald T, Mazziotta J, Iacoboni M, Dapretto M. Entering adolescence: resistance to peer influence, risky behavior, and neural changes in emotion reactivity. *Neuron*. 2011 Mar 10;69(5):1029-36. doi: 10.1016/j.neuron.2011.02.019. [https://linkinghub.elsevier.com/retrieve/pii/S0896-6273\(11\)00117-6](https://linkinghub.elsevier.com/retrieve/pii/S0896-6273(11)00117-6).
31. Li X, Feigelman S, Stanton B. Perceived parental monitoring and health risk behaviors among urban low-income African-American children and adolescents. *J Adolesc Health*. 2000