

## Profile of adolescent social media user in rural area

Patil M.A.<sup>1</sup>, Bharti H.<sup>2</sup>, Amte A.<sup>3</sup>, Singh B.K.<sup>4</sup>, Desai M.<sup>5</sup>

<sup>1</sup>Dr. Mohan A. Patil, Professor, Pediatrics, <sup>2</sup>Dr. Hemant Bharti, Assistant Professor, Pediatrics, <sup>3</sup>Dr. Amit Amte, Practicing Pediatrician, <sup>4</sup>Dr. Bhuvan Kumar Singh, Post Graduate Student, <sup>5</sup>Dr. Manjiri Desai, Assistant Professor in Statistics, <sup>1,2,4,5</sup>all authors are affiliated with D.Y. Patil Medical College, Kolhapur, Maharashtra, India.

**Corresponding Author:** Dr. Hemant Bharti, Assistant Professor, Pediatrics, D.Y. Patil Medical College, Kolhapur, India.

### Abstract

**Background:** With the widespread accessibility of internet in India over last decade, use of social media has become more popular especially in teenage children. Social media can be used for variety of reasons. It can be useful or may have adverse effects. In urban area use of social media is expected to be more however data regarding use of social media by adolescent children in this area is lacking. This study is conducted to know various aspects of social media use by adolescent children in rural part of Kolhapur district. **Method:** 650 students, with equal sex distribution in the age group of 15-18 years studying in 11<sup>th</sup> & 12<sup>th</sup> class from two rural areas of Kolhapur district were selected by simple random sampling technique. Data was collected by validated questionnaire. Data was analyzed by SPSS 23.0 version. **Result:** 87.86% rural adolescent children were found to use social media. Most of them were using it for entertainment and communication than for educational purpose. 30% children expressed negative feelings and more than half reported social media affecting their life style adversely. **Conclusion:** Accessibility to electronic gadgets, internet and social media is rapidly increasing to rural area. Along with good aspects of social media, negative aspects are also affecting rural adolescent children significantly. This highlight need for timely interventional strategies.

**Keywords:** Social media, Rural, Adolescent children

### Introduction

Man is a social animal. Along with his basic needs of food, clothes and shelter he needs socialization. He needs to connect and communicate with others. Modes of communication have changed with the time. Communication via network using various electronic devices has replaced conventional personal modes of communication and has become integral part of modern era. According to Internet and Mobile Association of India's data, number of internet user in India has reached 478 million by June 2018. Any website that allows social interaction is social media [1].

Most of the world's population is involved in such social networking, adolescents and young adults being most actively involved. Young children are not far from such practices. Time spent by children with use of social media, is matter of concern all over the world. Social media per say are not good or bad. Their good or bad use decides the result. Data all over the world indicates significant number of children have easy

access to electronic devices like television, cell phones, computers, tablets, along with internet connection. It makes them easy for use of social media by means of use of Face book, Twitter, WhatsApp, email, YouTube, blogs and similar applications [1-3].

Positive effects of social media can be many. It can be a good mode of education and distant learning. Similarly it can be a new medium of learning opportunities, creativity, homework and group project. It can help adolescents to connect with peers and share their knowledge, thoughts, art, music and games. It will foster their individual identity and social skills. It also gives opportunity for exercising and gaming. However inappropriate and excessive use of social media significantly contributes to deleterious consequences in children.

High incidence of psychological distress in users of social media for more than two hrs has shown to have effect on cognitive, social, behavioral development, sleep disturbance, decreased school performance, social isolation, altered sex behavior and substance abuse[4-

Manuscript received: 2<sup>nd</sup> January 2019

Reviewed: 8<sup>th</sup> January 2019

Author Corrected: 12<sup>th</sup> January 2019

Accepted for Publication: 15<sup>th</sup> January 2019

6]. These children are prone for attention deficit and hyperactivity disorders. Lack of physical activity in association with high caloric low nutritious food intake, leads to obesity and its consequences. With effect on spinal curvature one can have postural problems like kyphosis, scoliosis. Cyberbullying and online harassment may lead to severe psychological stress. It may add to real life aggression and violence [7-9]. Social media can create unrealistic expectations about body image leading to development of eating disorders.

Consequences of use of social media are going to vary regionally due to variations in availability of electronic gadgets, internet connections, knowledge about social media and parental supervision. Variations are also expected in urban and rural setups.

As adolescence is an age group where children are undergoing extensive physical, mental & emotional changes, effects of social media are going to affect them the most. In view of all these factors this study was planned to get some baseline data regarding use of social media by adolescent children in rural area.

## Results

**Table-1: Demographic profile and access to social media.**

Variable		Results
Total participants		650
Age		Mean age- 16.6 years
Gender		M:F- 332: 318 (51%: 49%)
Access to electronic media		641/650(99%)
Own a cell phone		477/650(73.42%)
Access to cell phone		565/650(86.87%)
Access to internet connection	Total	571/650(87.82%)
	Mobile data,	540/650(83.15%)
	living room,	234/650(36%)
	Bedroom,	206/650(31.65)
	School/college,	323/650(49.7%)
	Net café	300/650(46.2%)
Use of social media		571/650(87.82%) Yes
Social media details	WhatsAap	463/571(81.14%)
	Face book	314/571(54.94%)
	Twitter	60/571(10.5%)
	You tube	401/571(70.61%)
	Email	371/571(65.34%)
	Other	51/571(9%)

Total numbers of participant children were 650. Almost equal number of boys and girls, boys 332(51%) and girls 318(49%) participated in the study. Their mean age was 16.6 yrs. Majority of children were in contact with various modes of electronic gadgets. Main electronic media were radio 67.35%, television 96.11%, cell phone 86.87%, computer

## Material & Methods

Two rural villages 25 km from Kolhapur city of western part of Maharashtra state in India, Minche and Bhogavati, one on the east and one on the west of Kolhapur city respectively were selected as representative rural area.

An observational study was conducted after approval from ethical committee. Students between the age group of 15 to 18 years willing to participate in the study were included in the study. 11<sup>th</sup> and 12<sup>th</sup> standard junior college students with age 15 to 18 years participated in this study with their informed consent.

Data was collected from 325 students from each village. Total 650 students, almost equal boys and girls, 332 and 318 respectively participated in the study. The simple random sampling technique was applied to select students and the data was collected through a questionnaire. Confidentiality of the data was kept. Data was filled in the MS Excel sheet and analyzed by SPSS 23.0 version method.

network 49.69%, videogames 35.12%, movies 83.45% and other 32.74%. In spite being rural area, 86.87% children had access to cell phones, 73.42% owned their cell phones. Average 87.82% children had access to internet, most having internet access at multiple sites like mobile data 83.15%, living room 36%, bedroom 31.65%, school/college 49.7%, net café 46.2%, other 5.15%; mobile data being the commonest. 87.82% children were using social media, with quite significant numbers were using multiple modes of social media like whatsAap 81.14%, face book 54.94%, twitter 10.5%, you tube 70.61%, email 65.34% and other 9%.

**Table-2: Details of use of social media.**

Variable		Results
Daily time spent on social media	< halfhour	82/571(14.3%)
	Half to 1 hour	124/571(21.7%)
	1 to 2 hours	190/571(33.4%)
	2 to 4 hours	120/571(21%)
	> 4 hours	55/571(9.6 %)
Purpose of using social media	IP communication,	335/571(58.6%)
	Entertainment,	451/571(78.99%)
	Education/group discussion	72/571(12.68%)
	Research	168/571(29.45%)
	Video games	61/571(40.76%)
	Distant learning	228/571(39.95%)
	Exercising /gaming,	253/571(44.32%)
Art/music games	26/571(4.5%)	
Time to go to bed	< 9pm	254/571(44.49%)
	9-10 pm	297/571(52.14%)
	10-11pm	9/571(1.57%)
	11-12pm	8/571(1.35%)
	> 12 midnight	3/571(0.45%)
Use of SM before going to bed		540/571(94.64%)
Age of first use of SM	< 5 years	15/571(2.55%)
	5-10 years	6/571(1.12%)
	10-15 years	124/571(21.69%)
	15-18 years	426/571(74.64%)
Frequency of checking updates on SM	1-3 hours	107/571(18.68%)
	3-6 hours	143/571(25.11%)
	6-12 hours	101/571(17.75%)
	once in 24 hours	220/ 571(38.46%)

Daily time spent on social media was < half hour 14%, half to 1 hr 22%, 1-2 hrs 34%, 2-4 hrs 21%, > 4hrs 9%. Analysis of purpose of use of social media shows, it was used for interpersonal communication 58.6%, entertainment 78.99%, education and group project 12.68%, research 29.45%, videogames 40.86%, distant learning 39.95%, exercising & gaming 44.32%, sharing art and music 4.5%.

Most common use was for entertainment and interpersonal communication. Use of social media for educational purpose was seen in smaller percentage of children. Time to go to bed at night was found as < 9pm 44.49%, 9-10pm 52.14%, 10-11pm 1.57%, 11-12 pm 1.35% and > 12 midnight 0.45%.

Though majority of children go to bed at night before 11 pm, 94.64% of them use social media before going to bed. Age of using social media for the first time was found to be < 5 yr and 15-18 yr 74.64%.

Frequency of checking phone & mail was 1-3 hr 18.68%, 3-6 hr 25.11%, 6-12 hr 17.75% and once in 24 hrs 38.46%. More than half of the children checked their electronic devices frequently for latest messages.

**Table-3: Social media and its effects.**

Variable		Results
Daily hours spent on physical exercise	< half hr	98/ 571 (15.08%)
	Half -1 hr	212/571(32.62%)
	1-2 hrs	152/571(23.38%)
	> 2hrs	188/571(28.92%)
Feeling with use of SM	Happy	463/571(81.1%)
	Normal	491/571(85.95%)
	Nervous	494/571(86.5%)
	Anxious	45/571(7.8%)
	Lonely	71/571(12.46%)
	Low self esteem	4/571(0.7%)
	Depression	56/571(9.83%)
Affection due to SM	Sleep pattern	350/571(61.33%)
	Eating habit	231/571(40.53%)
	Weight	147/571(25.75%)
	Ideas about body image	293/571(51.37%)
	Aggression and violence	224/571(39.17%)
	Physical activity	392/571(68.68%)
	Food and beverage choice	250/571(43.75%)
	Direct interpersonal communication	324/571(56.76%)
	Tobacco chewing and alcohol habit	192/571(33.63%)
	Smoking gutka	11/571(2%)
Source of information about sex	217/571(37.95%)	
Attractive content of SM	Education	504/571(88.31%)
	Distant learning	329/571(57.54%)
	Peer communication	295/571(51.69%)
	Sending photo and video	430/571(75.23%)
	Entertainment	457/571(80%)
	Videogames	201/571(35.23%)
	Sexting	79/571(13.85%)

Time spent on physical exercise was reported as < half hr 15.08%, half to 1hr 32.62%, 1-2hr 23.38%, and > 2hr 28.92%. Almost 75% could spend more than half an hour daily for exercise; one third could spend more than 2 hours. There was mixed and multiple response for the question how they feel about use of social media. It was found as happy 81.1%, normal 85.95%, nervous 86.5%, anxious 7.8%, lonely 12.46%, low self esteem 0.7% and depression 9.83%. Many children reported multiple feelings.

Though 70% children enjoyed using social media, remaining 30% reported negative feelings like nervousness, anxiety, loneliness and depression. Analysis of how social media affected showed, it affected their sleep pattern 61.33%, eating habit 40.53%, weight 25.75%, ideas about body image 51.37%, aggression and violence 39.17%, physical activity 68.68%, food and beverage choice 43.75%, direct interpersonal communication 56.76%, tobacco chewing and alcohol habit 33.63%, smoking gutka 2%, and source of information about sex 37.95%. Significant number of children felt that use of social media affected their lifestyle adversely.

Fortunately effect on dangerous habits like smoking and gutka was reported by only small percentage of children 2%. On questioning which use of social media children found attractive, it received multiple responses. They were education 88.31%, distant learning 57.54%, peer communication 51.69%, sending photo and video 75.23%, entertainment 80%, videogames 35.23% and sexting 13.85%. Entertainment and communication constitute leading answers. Though educational purpose was reported by 74%, it didn't reflect in their actual use.

## Discussion

There is general assumption that children in rural area have some disadvantage in many areas as compared to their urban counterpart. This study doesn't endorse this assumption as far as availability and use of commonly used electronic gadgets and social media. 86.87% children in rural study population had access to cell phones, 73.42% owned their cell phones and majority of them had access to other forms of electronic gadgets.

These findings are similar with findings of Ansh Bhat et al [10]. 88% children reported to have internet accessibility with significant number having accessibility at multiple sites. Especially connectivity to net at bedroom makes them susceptible for excessive use of social media, late nightwaking, sleep disturbances, and late morning awakening.

WhatsApp, YouTube, Facebook, email were common modes of use of social media with other modes like Twitter, Instagram used to a lesser extent. Daily time spent on social media was more than one hour in 64% children; 9% of them spending more than four hours. It is really a matter of concern.

Children were found to have entertainment as priority for use of social media followed by interpersonal communication. Use of social media for educational purpose, distant learning, research and health was reported by less number of children. In spite of majority of children reporting to go to bed before 11 pm, most of them use social media before going to bed was matter of concern.

Use of electronic media before going to bed is associated with multiple health problems like altered sleep behavior, externalizing behavior, depressed mood, decline in self-esteem and coping; hence strongly discouraged. [11-14]. Two third of children experienced their first exposure to social media between the age of 15-18 years. Half of the students checked their mobiles, mails once in a day while remaining half checked more frequently than once in a day.

Good part of study was in spite of easy accessibility of electronic gadgets and internet connection almost 75% children could spend > half an hour daily for exercise, one third could spend > 2 hours. 70% children enjoyed their social media use.

They felt happy about it. Rest 20% expressed mixed feelings like loneliness, nervousness, depression; which should be a matter of concern. Use of social media did

affect certain areas of children like sleep pattern, food habits, direct interpersonal relations, behavior and physical activities. Response percentage for these negative aspects is alarming.

Similar findings were reported in Indian adolescent children along with other behavioral problems, decreased privacy, living in virtual world than real world, affecting scholastic performance and eating habits. However most of these studies were done in urban area [15]. Analysis of how social media affected various aspects of daily life showed significant findings.

Social media affected their sleep pattern, eating habit, weight, ideas about body image, aggression and violence, physical activity, food & beverage choice, direct interpersonal communication, tobacco chewing and alcohol habit in almost more than half children.

Studies regarding tobacco use in India indicate most susceptible time for initiating tobacco use in India is during adolescence and early adulthood [16]. Similar findings highlighted influence of social media alcohol marketing on youth alcohol use behavior in India [17].

These findings raise concern regarding how social media is adversely affecting healthy life style activities of children at young age. Similar findings were reported in other studies affecting various areas under study [11, 18-22].

Attractive feature of social media was reported as entertainment and interpersonal communication. Though use of social media for educational purpose was appreciated by significant number of children, it didn't reflect in their practical behavior.

Findings from the current study suggests use of social media for constructive positive purpose, is not being used in practice by rural adolescent population under study. Negative aspects of social media use raises concern [23,24].

Use of social media should be keenly monitored and intervened since young age by parents as suggested by American Academy of Pediatrics [14,25-27].

**Limitations of study:** Representative sample is small and it's from only two rural areas. Finding of the study cannot be generalized. As regional variations are expected in use of social media, multicentric studies will be more conclusive.

## Conclusions

Rapidly increasing access to internet and exponential growth in the use of social media by Indian youth is progressing from urban area to rural area. Use of social media for entertainment and communication than for educational and personality development purpose raises concern. Negative effects of social media use are reflecting in rural adolescent children also. This highlights need for timely interventional strategies in at risk adolescent children.

**What is known:** Easy accessibility of urban youth to electronic media and extensive use of social media is known.

**What this study adds:** Negative effects of use of social media are affecting rural youth to significant extent. There is need for timely interventional strategies for high risk adolescent children.

**Contributors:** MAP designed the study, drafted manuscript and reviewed the literature. HB and AP collected data. BK compiled the data, MD analyzed the data. All authors approved the final manuscript.

**Funding:** Nil, **Conflict of interest:** None initiated, **Perission from IRB:** Yes

## References

- O'Keeffe GS, Clarke-Pearson K; Council on Communications and Media. The impact of social media on children, adolescents, and families. *Pediatrics*. 2011 Apr;127(4):800-4. doi: 10.1542/peds.2011-0054. Epub 2011 Mar 28.
- Maeve Duggan, Joanna Brenner. The Demographics of social Media Users 2012. Pew Research Center's Internet & American Life Project. 14 February 2013. Available from: URL:<http://www.pewinternet.org>
- Available from:URL: <http://www.internetworldstats.com/stats.htm>. Internet Users in the World by Geographic Regions- June 30, 2018. Accessed January 7, 2019.
- Richards D, Caldwell PH, Go H. Impact of social media on the health of children and young people. *J Paediatr Child Health*. 2015 Dec;51(12):1152-7. doi: 10.1111/jpc.13023. Epub 2015 Nov 26.
- Surwase K, Bagdey P, Adikane H. Prevalence and Associated Risk Factors of Internet Addiction in College Going Students in Nanded city. *Natl J Community Med* 2017; 8(5):213-218.
- Ray M, Jat KR. Effect of electronic media on children. *Indian Pediatr*. 2010 Jul;47(7):561-8.
- Wilson BJ. Media and children's aggression, fear, and altruism. *Future Child*. 2008 Spring;18(1):87-118.
- Sampasa-Kanyinga H, Lewis RF. Frequent Use of Social Networking Sites Is Associated with Poor Psychological Functioning Among Children and Adolescents. *Cyberpsychol Behav Soc Netw*. 2015 Jul; 18 (7): 380-5. doi: 10.1089/cyber.2015.0055.
- Goel D, Subramanyam A, Kamath R. A study on the prevalence of internet addiction and its association with psychopathology in Indian adolescents. *Indian J Psychiatry*. 2013 Apr;55(2):140-3. doi: 10.4103/0019-5545.111451.
- Bhat A, Cherian A, Thomas C, et al. Problematic internet use among Indian adolescents: finding from a sample of undergraduate students. *J. Evolution Med. Dent. Sci*. 2016;5(53):3491-3495, DOI: 10.14260/jemds / 2016/806
- Ray M, Jat KR. Effect of electronic media on children. *Indian Pediatr*. 2010 Jul;47(7):561-8.
- Lynette Vernon, Kathryn L. Modecki, Bonnie L. Barber. Mobile Phones in the Bedroom: Trajectories of Sleep Habits and Subsequent Adolescent Psychosocial Development. *Child Development: Vol 89, No 1 Jan/ Feb 2018: 66-77*.
- Nicola Hughes, Jolanta Burke .Sleeping with the frenemy: How restricting 'bedroom use' of smartphones impacts happiness and wellbeing. *Computers in Human Behavior*. Volume 85, August 2018: 236-244.
- Policy statement, American Academy of Pediatrics. Children, Adolescents and the Media. *PEDIATRICS* Volume 132, Number 5, November 2013: 958- 961. doi:10.1542/peds.2013-2656.
- Sanjeev Davey, Anuradha Davey. Assessment of Smartphone Addiction in Indian Adolescents: A Mixed Method Study by Systematic-review and Meta-analysis Approach. *Int J Prev Med*. 2014 Dec; 5(12): 1500–1511
- Alpesh Shankerlal Patel, Raman D Damor. A cross section study on tobacco consumption practice in school going adolescent male of Jamnagar city, Gujarat, India. *ijcmph* Vol 5 No.3(2018) March 2018: 933-938. DOI:<http://dx.doi.org/10.18203/2394-6040.ijcmph.2018.0478>.

## Original Research Article

17. Gupta H, Lam T, Pettigrew S, et al. The association between exposure to social media alcohol marketing and youth alcohol use behaviors in India and Australia. *BMC Public Health*. 2018 Jun 13;18(1):726. doi: 10.1186/s12889-018-5645-9.
18. V Goswami, D Singh (2016), Internet Addiction among Adolescents:A Review of the Research, *International Journal of Indian Psychology*, Volume 3, Issue 3, No. 11, DIP: 18.01.194/20160303, ISBN: 978-1-365-21307-6
19. An, Jing MM; Sun, Ying MD; Wang Xi MM; Tao, Fangbiao MD, PhD. Associations Between Problematic Internet Use and Adolescents' Physical and Psychological Symptoms: Possible Role of Sleep Quality. *Journal of Addiction Medicine*: July/August 2014 – Volume 8 - Issue 4 - p 282–287. doi: 10.1097 / ADM.0000000000000026
20. Vivek Agarwal, Saranya Dhanasekaran. Harmful Effects of Media on Children and Adolescents. *J. Indian Assoc. Child Adolesc. Ment. Health* 2012; 8(2):38-45
21. Bányai F, Zsila Á, Király O, et al. Problematic Social Media Use: Results from a Large-Scale Nationally Representative Adolescent Sample. *PLoS One*. 2017 Jan 9;12(1):e0169839. doi: 10.1371/journal.pone.0169839. eCollection 2017.
22. Victor C. Strasburger, Amy B. Jordan, Ed Donnerstein. Health Effects of Media on Children and Adolescents. *Pediatrics*. April 2010, Volume 125/ Issue 4: 756-767.
23. Bianca S. Honnekeri, Akhil Goel, Maithili Umate, Nilesh Shah, Avinash DeSousa. Social anxiety and Internet socialization in Indian undergraduate students: An exploratory study. *Asian Journal of Psychiatry*. Volume 27, June 2017: 115-120.
24. Yatan Pal Singh Balhara, M. Harshwardhan, Rajeev Kumar, Shalini Singh. Extent and pattern of problematic internet use among school students from Delhi: Findings from the cyber awareness programme. *Asian Journal of Psychiatry*: Volume 34, April 2018, 38-42.
25. Suhail K, Bargees Z. Effects of excessive Internet use on undergraduate students in Pakistan. *Cyber-psycholBehav*. 2006 Jun;9(3):297-307.
26. AAP Council on Communications and media. Media and Young Minds. *Pediatrics*, 2016: 138 (5): e20162591. DOI: 10.1542/peds.2016-2591
27. Aysu Turkmen Karaagac. Undesirable Effects of Media on Children: Why limitation is Necessary? *Indian Pediatr* 2015;52: 469-471.

.....

**How to cite this article?**

Patil M.A, Bharti H, Amte A, Singh B.K, Desai M. Profile of adolescent social media user in rural area. *Int J Pediatr Res*. 2019;6(01):22-28.doi:10.17511/ijpr.2019.i01.04

.....