'Caught in the Web': Internet Addiction levels in Indian Adolescents

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Abstract

Context and aim: *Number of internet users is increasing daily. We undertook a multi-centric study to determine levels of internet addiction (IA) in Indian adolescents.*

Methodology, design, and material: *A cross-sectional survey design was adopted and Kimberley Young's Internet Addiction Test was used to assess IA levels.*
Sample: Sample consisted of 796 students (13-17 years) from three middle-socio-economic schools in North India [Delhi (n=320), Haryana (n=277) and Uttarakhand (n=199)]. All ethical guidelines were duly followed.

Statistical analysis and Results: *Independent sample t-test and one-way ANOVA were used for analysis. Overall, 40% and 23% of students had mild and moderate levels of addiction, respectively. Males showed statistically significant higher addiction levels [Delhi: t =12.61, P <0.05; Uttarakhand: t = 9.875, P= 0.000 and Haryana: t = 9.465, P = 0.004]. ANOVA results suggest no difference in addiction levels across the age levels (early (10-13 years), middle (14-16 years) and late (17-18 years) adolescents. However, the frequency of IA shows a steady increase as students move from early to mid and late adolescence, underlining the importance of early intervention. Access by Net Card was also seen to have a statistically significant impact on addiction levels in Uttarakhand and Haryana. Delhi students showed markedly higher levels of mild addiction. Students in Uttarakhand had higher moderate levels of addiction compared to Haryana; these findings indicate an urgent need for intervention in these areas.*

Conclusion: *Results highlight the need for building awareness on healthy practices for internet use, to reduce addiction levels.*

Key words: *Internet addiction, Kimberley IAT, adolescents, school study, India, pilot study.*

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 2)

Abbreviations

AACCI – Association of Adolescent and Child Care in India.

IA – Internet Addiction

IAT – Internet Addiction Test

Introduction

Dr Ivan Goldberg first coined the term 'internet addiction' (IA) in 1995 in his satirical post on the online psychiatric bulletin board PsyCom.net (no longer available) to refer to pathological or compulsive internet use (qtd. in Dalal and Basu). Fashioned as per the Diagnostic and Statistical Manual of Mental Disorders IV (DSM IV) diagnostic criteria of other addictions, Problematic Internet Use (PIU) or Internet Addiction (IA) was described as follows: includes extreme/ poorly controlled urges, preoccupations with the internet and/ or problematic behaviors pertaining to computer use or internet access which leads to social and/or personal impairment and distress (Srinivasan). Young defined IA as a man-machine behavioral addiction. She was also the first to propose a diagnostic criterion for IA which included the following: regular excessive internet use, social isolation, neglect of routine duties or life responsibilities, being secretive about their activities on the internet or suddenly demanding privacy from friends or family when online (Young). Thus, the proposed criteria aimed to distinguish regular internet use from internet addiction by highlighting the negative personal and social consequences resulting from the latter.

Phenomenologically, IA can be divided into three main subtypes: excessive gaming, sexual preoccupations (cybersex and porn addiction) and extreme social networking/ social media usage. While IA as a whole, has not as yet been recognized by any diagnostic manual, internet gaming disorder (IGD) was included in the appendix of Diagnostic and Statistical Manual of Mental Disorders 5 (DSM 5) as an area for further consideration and study.

Since the early 2000s, various news reports have been published highlighting the negative consequences of IA e.g.: cardiopulmonary-deaths in Internet cafes in South Korea, Taiwan etc. The same led to IA being regarded as one of the most serious public health concerns of the present age in various countries (Block). These news findings prompted researchers from across the world to formally investigate prevalence rates and severity of IA to come up with appropriate intervention strategies, treatment methods and public health policies.

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 3)

Prevalence rates of IA, particularly among adolescents were found to vary significantly across the nations. A meta-analysis by Lozano-Blasco, Latorre-Martinez and Cortes-Pascual revealed that age, geographical region (with different regions having cultural variability) and assessment instruments (differences in definition of IA, elaboration on its symptoms and introducing it as a pathology) were found to explain Internet Addiction the most (Lozano-Blasco et al.). Although gender was not found to explain IA directly, it was seen to play a secondary role in addictions, and thus considered to be of importance. Gender, together with self-evaluation was seen to moderate IA, with males being the most affected (Biraglia et al.).

Research by Mo et al. found that IA had significant negative consequences on self-esteem and academic aspirations among Chinese adolescents in Hong Kong (Mo et al.). Nearly 11% of the sample was found to meet the criteria for IA. The prevalence was seen to be higher in males, suggesting that males may be more susceptible to and more easily affected by the negative impacts of IA. IA has often been seen to be comorbid with other conditions such as depression, anxiety, obsessive-compulsive symptoms, emotional instability and hostility and substance/ alcohol abuse. The sedentary lifestyle and erratic eating patterns that often accompany internet overuse have also been documented as contributory factors for obesity, malnutrition, musculoskeletal disorders (e.g.: carpal tunnel syndrome), postural problems, sleep disturbances and other morbidities (Canan et al.; Heidarimoghadam et al.). The causal nature of this relationship remains unclear; but growing evidence suggests that the factors most likely share a complex, bi-directional relationship. Newer, neuroscientific research suggests that there are anatomical differences in the brain structure of those meeting criteria for IA, when compared to 'normal' controls (Spear; Steinberg; Sovani). Research on IA in the Indian context has also identified being a male and an adolescent as one of the demographic risk factors for IA. Additionally, parental education level, metropolitan living area, general level of dissatisfaction with life, ease of access to the internet and frequency of using social media and gaming sites were found to increase chances of IA. Social factors such as introversion, poor in-person communication, lack of interpersonal and parental support, loneliness and negative peer relationships were also found to increase risk for IA (Maheshwari and Sharma).

While there exists an abundance of literature on IA, its risk factors, and negative consequences; there are limited study findings for the same in the Indian context. Given the findings of the meta-analysis by Lozano-Blasco et al. which state that nearly 47% of the variability in IA prevalence is owing to cultural differences, it becomes imperative that the concept be studied keeping the Indian adolescent population in mind (Lozano-Blasco et al.). The same will allow us to identify how many of the risk factors and negative consequences overlap with those from other cultures, and how intervention and

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 4)

preventive strategies must be culturally appropriated so as to maximize their effectiveness. Furthermore, given the fast-paced technological development and rapid changes in the digital world, it is crucial that periodical revisions be carried out for the prevalence rates, risk factors and negative consequences of IA. The same will ensure that the intervention and preventive strategies designed are appropriate and effective.

Internet use no doubt has a lot of positive indications, which may include academic applications, training opportunities using technology, and remote communication to provide services. However, thoughtless overuse often arises out of lack of awareness about its risks, and peer pressure to conform to social norms, to which adolescents are highly susceptible.

Rationale.

Rapid technological advancement over the past two decades has made hand-held electronic devices a common household and personal item, whether in the rural or urban sectors. These items, with their provision for internet connectivity have in turn made internet access an essential part of our daily lives. Though considered a part of our daily life activities, general trends and observations suggest an exponential increase in the use of the internet, particularly among the youth. This then begs the question of whether the increased internet usage borders on addiction, or must be considered as non-pathological. To answer the same, specifically with respect to the Indian adolescent population, the Association of Adolescent and Child Care in India (AACCI) conducted a multi-centric study exploring the level of internet addiction in Indian youth, and relevant associated characteristics.

Methodology

Aim

To assess the level of internet addiction in Indian school children as part of the AACCI multi-centric studies on Youth behavior in India that includes "Internet Addiction in Indian Teens."

Study Design

A cross-sectional school-based Survey.

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 5)

Sample selection

Convenience sampling was employed. The schools chosen were those where the 4th author had a rapport with the principals. The classes which the principals decide to allot, were included in the study.

Inclusion criteria. All students from the allotted classes were included in the sample.

Exclusion criteria. There were no exclusion criteria.

Study duration

Data collection was carried out during November 2016. Across the three states, on different dates, data collection was done as a one-day procedure.

Permissions

Written permission from the respective school authorities were obtained. Parental permission was obtained through the school principals. Students' written assent was obtained as part of the questionnaire itself, since most were below 18 years and cannot give legal consent.

Ethical Considerations

Prior to the data collection, approval was obtained from AACCI institutional ethics committee as part of the its multi-centric youth behavior study.

Sample details

The sample size (N) was 796. Of these, 320 students were from an English-medium co-educational school in Delhi (School 1), 277 were from a Hindi medium co-educational school in Haryana (School 2), who also had English as a subject and had a basic understanding of the English language. (They were also explained the questionnaire in Hindi) and 199 students belonged to an English-medium co-educational school in Uttarakhand (School 3). All schools were from the middle economic class. The respondents were students from 8th to 10th grade, ranging from 13 - 17 years.

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 6)

Procedure

In-person survey was conducted across 3 schools in North India (Delhi, Haryana, and Uttarakhand). The 4th author trained the school teachers to proctor the questionnaire responding process by the students. The students were briefly introduced to the purpose of the study after which they were made to fill in a detailed demographic form, followed by the self-report survey (IAT). They filled both forms under the supervision of trained teachers. The first survey was done in Delhi which is a metropolitan city and the second survey done was in Haryana and Uttarakhand states in semiurban cities.

Tools

Internet Addiction Scale (IAT) (Young)

Description. A well validated, free-for use tool developed to measure the presence and severity of Internet and technology dependency among youth and adults. The IAT is a 20 item, self-report questionnaire that assesses the presence of addiction and dependence on the internet, electronic entertainment, social media, and the general use of electronic devices. Since various factors may lead to internet addiction, each manifesting differently; the IAT also yields scores related to the following areas: escape or salience, compulsion, neglecting duties, anticipation, lack of control and social avoidance. The questionnaire adopts a 6-point Likert scale with the following ratings: 0 - not applicable, 1 - rarely, 2 - occasionally, 3 - frequently, 4 - often and 5 - always.

Scoring. In this scale -higher the score, greater is the severity of addiction: 0-30 - normal use/ no addiction, mild addiction - 31-49, moderate addiction 50-79 and severe addiction 80-100.

Psychometric qualities. The 6 factors in IAT had good internal consistency and concurrent validity; among them, salience was found to be the most reliable (Widyanto and McMurran).

Demographic questionnaire

Description. A customized demographic questionnaire was developed for obtaining additional information about the participants including their age, gender, sibling status , education level of father and mother and access to internet, parental access to the internet.

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 7)

Statistical Analysis

Data analysis was conducted using excel and SPSS version 18. Gender based analyses were conducted using independent samples t-test and age-based analyses were carried out using one-way between groups ANOVA.

We also assessed the relationship of the IAT scores and the demographic variables -age group, gender, and access to 24 hours internet/ internet card.

Results and Discussion

A cross-sectional school-based survey was conducted to assess the level of internet addiction (IA) in the adolescents of India. Sample consisted for 796 students from 8th - 10th standard from across 3 schools in North India (Delhi, Haryana, and Uttarakhand); with ages ranging from 13-17 years.

Frequency distribution and percentage were used to provide demographic profile of the participants in the study; the same has been depicted in Table 1.1

Table 1.1: Demographic Characteristics of the Sample				
		Survey 1	**Survey 2**	
N = 796		**School 1 (Delhi) n = 320**	**School 2 (Haryana) n = 277**	**School 3 (Uttarakhand) n = 199**
Age range	**Early adolescents**	4 (1.3%)	21 (7.6%)	8 (4%)
	Middle adolescents	313 (97.8%)	205 (74%)	137 (68.8%)
	Late adolescents	3 (0.9%)	51 (18.4%)	54 (27.1%)
Gender	**Males**	180 (56%)	181 (65.3%)	102 (51%)
	Females	140 (44%)	96 (34.7%)	97 (49%)

Table 1.1: Demographic Characteristics of the Sample

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 8)

Internet Addiction was determined by analyzing student responses to the Internet Addiction Test (IAT) (Young). Descriptive and inferential statistical analyses were carried out on the data obtained.

Table 1.2 reflects the frequencies and percentages of addiction levels across the three schools. As is clear from the table, internet addiction was prevalent to differing extents. Around 36% students had normal scores. The maximum number of students (around 40%) fell under the mild internet addiction category, which means that they are average internet users who at times may lose track of time while surfing the internet, but largely do show control over their usage. A notable number of students also showed moderate levels of IA (around 23%), suggesting that they do experience a certain degree of difficulty resulting directly or indirectly from their internet usage. The frequency of these problems may vary across individuals. 5 students out of 796 (i.e.: 0.6%) students showed severe addiction levels. Since forms were anonymized, no individual interventions were done, and we administered universal intervention to the classes.

Table 1.2: Frequency and percentage of overall levels of addiction across the three schools				
Score on IAT:	**Normal** **(0-30)**	**Mild** **(31-49)**	**Moderate** **(50-79)**	**Severe** **(80-100)**
School 1 Delhi **n= 320** **Survey 1**	74 (23%)	144 (45%)	99 (31%)	3 (1%)
School 2 Haryana **n = 277** **Survey 2**	139 (50.2%)	102 (36.8%)	34 (12.3%)	2 (0.7%)
School 3 Uttarakhand **n = 199** **Survey 2**	76 (38.2%)	69 (34.7%)	54 (27.1%)	0 (0%)
Total **100%**	**289** **(36.3%)**	**315** **(39.6%)**	**187** **(23.5%)**	**5** **(0.6%)**

Table 1.2: Frequency and percentage of overall levels of addiction across the three schools

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 9)

An interesting yet concerning finding was that despite the difference in the school settings ranging from semi urban to metropolitan, there was very little difference between the moderate addiction levels in School 1 (Urban Delhi school) and School 3(Rural Uttarakhand school).

In metropolitan areas like Delhi, the mild and moderate addiction frequency is over three times that of symptom free children. We need to explore whether the parents and teachers are aware of the seriousness of the problem, and if so, educate them of the various intervention strategies they can adopt to reduce and/or prevent addiction and dependency.

Furthermore, while School 3 (Uttarakhand school) showed zero severe cases, the cumulative frequency of mild and moderate cases was high (123) which is also a matter of concern.

Age-based analysis

Students from the three schools were categorized into three separate groups - early adolescents (10-13 years), middle adolescents (14-16) and late adolescents (17-18 years)

One way between groups ANOVA was conducted to check the addiction levels. For all three schools, no statistically significant association was found between age and level of addiction. The majority of the students across the three schools belonged to the middle adolescent category. The unequal group sizes could be one reason for the lack of statistically significant findings observed.

Gender-based analysis

Independent samples t-tests were conducted to check for gender differences in addiction levels for all three schools; the same have been reflected in Table 1.3.

Results revealed that across all three schools, males showed statistically significant higher addiction levels compared to females [School 1(Delhi): t =12.61, P <0.05; School 2 (Haryana): t = 9.465, P=0.004 and School 3(Uttarakhand): t = 9.875, P=0.000]. The current results are also in line with previous findings which identified being male as a risk factor for developing IA (Maheshwari and Sharma). A possible explanation for these results could be the cultural variables. Owing to the traditional patriarchal societal structure, the boys in these schools may have comparatively greater exposure and opportunities for engagement with different experiences (including the internet) compared to girls. This however, may not account for the difference observed entirely. One research explained that gender as an independent construct may not be relevant to internet addiction; however,

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 10)

considered with self-evaluation, it was seen to moderate the levels of IA, with men being the most affected (Biraglia et al.). Thus, in addition to cultural variables, the relationship of gender with self-evaluation also seems to influence the levels of addiction observed.

Table 1.3				
Gender-based differences in addiction levels across all three schools				
		Survey 1	**Survey 2**	
N = 796		**School 1 (Delhi) n = 320**	**School 2 (Haryana) n = 277**	**School 3 (Uttarakhand) n = 199**
Males	**Number (n)**	180	181	102
	Average score (x)	44.10	32.55	42.03
	±S.D.	±15.95	±18.8	±17.28
Females	**Number (n)**	140	96	97
	Average score(x)	41.85	23.08	32.16
	±S.D.	±13.85	±23.1	±18.34
t- value		**t = 12.61 p <0.05***	**t = 9.465 p = 0.004****	**t = 9.875 p = 0.000*****
Significant p values: p <0.05* p <0.01*, p < 0.001 ***				

Data for school 1 (Delhi) a Metropolitan city was collected as the first survey. School 2 (Haryana state) and School 3 (Uttarakhand) were both from semi-urban cities. Data from both these schools were collected as part of a second survey and then comparative analyses were conducted for the two schools. The same has been reflected in tables 1.4 and 1.5.

The ratio of male students to female students is high in School 2 (Haryana) showing that parents are more reluctant to allow their girl child to avail of schooling (P=0.002).

The demographic variable of sibling status and educational status of father and mother did not yield statistically significant results.

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 11)

Table 1.4

Demographical comparison of Uttarakhand and Haryana school children

Survey 2				
	Uttarakhand School (School 3) (n=199)		**Haryana School (School 2) (n=277)**	**p Value**
Age	15.44 ± 1.56		15.31 ± 1.43	0.360
Sex				
F	97	48.7%	96	34.7%	**0.002****
M	102	51.3%	181	65.3%	
Single Child				
Yes	8	4.0 %	23	8.3%	0.062
No	191	95.9 %	254	91.7%	
Mother's Education				
Illiterate	5	2.5%	18	6.5%	0.123
High School	159	79.9%	209	75.5%	
Graduate	27	13.6%	32	11.5%	
Post graduate	8	4.0%	18	6.5%	
Father's Education				
Illiterate	5	2.5%	10	3.6%	0.898
High School	123	61.8%	171	61.7%	
Graduate	44	22.1%	57	20.6%	
Post graduate	27	13.6%	39	14.1%	
Significant p values: *p <0.05, ** p <0.01, *** p < 0.001				

Kimberley's IAT scale is a self-administered scale and the chances of reality being much worse cannot be ignored. Probable explanations that could account for the presenting results include the rapid penetration rate of internet services in remote parts of India. Internet usage in India exceeded the half a billion mark in March 2019 with India seeing a rapid internet growth in the rural areas ("Internet users in India"). The Internet and Mobile Association of India (IAMAI) reported 692 million active users in the country in their research report published in July 2022 (IAMAI).

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 12)

Table 1.5
Comparison of internet use in the families of students from Haryana and Uttarakhand

Survey 2					
	Uttarakhand School 3 (n=199)		Haryana school 2 (n=277)		P value
	Frequency	%	Frequency	%	
Do your parents use internet?					
No	5	2.5%	11	4.0%	0.384
Yes	194	97.5%	266	96.0%	
Only Mother uses	31	16.0%	58	21.8%	**0.003****
Only Father uses	46	23.7%	90	33.8%	
Both parents use	117	60.3%	118	44.4%	
Do you have 24-hour broad connection at home?					
No	8	4.0%	21	7.6%	0.259
Yes	191	96%	256	92.4%	
Exclusive access	12	6.3%	14	5.5%	
Shared by a Family Member	179	93.7%	242	94.5%	
Do you have internet access via net card?					
No	7	3.5%	26	9.4%	**0.032***
Yes	192	96.5%	251	90.6%	
Exclusive Yes	10	5.2%	18	7.2%	
Shared by a Family Member	182	94.8%	233	92.8%	
Do you access by Internet/Broad connection?					
No	1	0.5%	10	3.6%	**0.026***
Yes	198	99.5%	267	96.4%	
Do you have a gadget to access the Internet?					
No (don't have)	13	6.6%	17	6.4%	0.659
Yes (have)	186	93.4%	250	93.6%	
Desktop computer	28	14.1%	54	20.2%	
Laptop	26	13.1%	28	10.5%	
smartphone	92	46.5%	115	43.1%	
I phone	10	5.1%	14	5.2%	
I pad	2	1.0%	5	1.9%	
Tablet	3	1.5%	7	2.6%	
More than one gadget	24	12.1%	27	10.1%	
Total	198[@]	93.4%	267[@]	93.6%	
Which areas on the net do you spend maximum time on?					
None	10	5.1%	10	3.7%	
Social networking	55	27.8%	56	21%	

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 13)

Educational search	61	30.8%	99	37.1%	**0.006****
Music	35	17.7%	52	19.5%	
Movies	4	2%	23	8.6%	
More than one	33	16.7%	27	10.1%	
Total	198@	100%	267@	100%	
Significant p values: *p <0.05, ** p <0.01, *** p < 0.001 @˙N for school 3 (Uttarakhand) = 198 because 1 student did not respond to the question. N for school 2 (Haryana) = 267 because 10 students left the question unanswered					

In addition to increased availability, the age of exposure to the internet is also an important factor that must be considered. Research by Responsible Netism showed that an increasing number of students were exposed to the internet at an early age (between 7-10 years) and a greater number of children had easy access to smart devices (e.g.: phones, computers etc.) to access the internet (Responsible Netism). The compounded effect of easy access to smart devices, earlier exposure to the internet and the rapid dissemination of the internet, attributable to increased availability of bandwidth, cheap data plans etc. all significantly increase the chances of overuse of the internet, which in turn increases risk for addiction, as is seen in the present study.

Some other interesting trends were seen in the same data, which are reflected in Table 1.5. When asked whether both parents use the internet, a significantly higher percentage of children from school 3 (Uttarakhand) answered in the affirmative (60.3%) as compared to school 2 (Haryana) (44.4%); and the difference was significant (P = 0.003). This leads one to wonder whether parents who are more informed about internet use can contain typical addiction patterns in their children.

Further, 94.8% children from School 3 (Uttarakhand) reported accessing the internet via Net card shared with a family member, as against 92.8% of School 2 (Haryana) students and the difference was significant (P = 0.03).

Hence, it appears that if parents and family members too are using the internet to a high degree, they are probably more aware of possible misuse in their children, a finding that needs to be kept in mind while conducting awareness programs and underlining the importance of parental supervision. It is well known that parents can remain blissfully unaware of child's internet overuse, and need to remain alert and well informed.

Other similar trends seen were that School 3 (Uttarakhand) students used significantly more internet or broadband connectivity (99.5% as against 96.4% in School 2 (Haryana), P = 0.026). School 3 (Uttarakhand) children also showed markedly more social networking at 27.8% as against School 2

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 14)

(Haryana) children showing 21%, whereas the latter showed more educational use of the internet with 37.1% reported, as against School 3 (Uttarakhand) data showing 30.8%; P = 0.006). The school 2 (Haryana) children also showed higher movie watching online (8.6%).

Although not presented separately in tables in this paper, individual responses to the questionnaire yielded some interesting trends which are summarized herein. Children from School 3 (Uttarakhand) also admitted to preferring to spend more time online rather than going out as compared to children from School 2 (Haryana) (21.2% v/s 10.1%, P = 0.001), and failing to cut down time spent online (18.7% v/s 9.4% in the Haryana group; P = 0.003). They admitted to wanting to "stay just a few minutes more online" when asked to log off (P = 0.018) and losing sleep due to late night log-ins (P = 0.001), snapping, and yelling if disturbed if they were online (P = 0.016) and becoming defensive if they were asked what they were doing online (P = 0.008). More research is needed to understand why these differences exist, but it is notable that even a self-report survey could identify these trends.

In today's age of technological advancement, where members of the digital world are increasing by the day and the internet penetrates to the most remote parts of the world, it becomes imperative that we identify and spread awareness about the negative consequences of improper and unmonitored use of the internet. While the internet remains a source of abundant information and knowledge, it also can prove to be a space of chaos and confusion, which if not navigated tactfully can cause significant difficulties in inter and intra-personal matters in the form of an addiction.

Given that IA has often been regarded as a problem with impulse control, it may be beneficial to educate children and adolescents about self-control and how to practice it in their relationship with the internet. The same may help reduce the presenting prevalence rates. AACCI regularly conducts WHO Life skills education programs which help in dealing with the challenges of adolescent life.

Further work is also needed to explore what difficulties the adolescents faced as a result of internet overuse, e.g.: cyber bullying, morphing of pictures, hacking, etc. Studies in Maharashtra have found such results (Responsible Netism).

Limitations and Future Considerations

This was a pilot study. The sample was restricted to students from middle-socio-economic strata schools from three regions of North India where the fourth author was conducting programs and had a rapport with the school management. To get a more holistic understanding of IA trends across the country, the sample must consist of adolescents from across all states.

Citation: Dr Swati Y Bhave 'Caught in the Web': Internet Addiction levels in Indian Adolescents"
MAR Pediatrics, Volume 4 Issue 1
www.medicalandresearch.com (pg. 15)

Present study also only looked at overall IA levels as measured by the IAT; future research can be focused on investigating the differences in trends (if any) owing to the 6 areas as assessed by the IAT (escape, compulsion, neglecting duties, anticipation, lack of control and social avoidance) (Young). The same may allow us to make targeted interventions for reducing IA.

Current study results show that there exist no differences in IA levels across the age-groups; this however, could be owing to the disproportionate group sizes. Future research can investigate age-based differences while ensuring that an equal number of students are present in all three categories. Similarly, reasons for the gender differences observed must also be explored in greater depth.

Conclusion

The presenting study aimed to gauge the level of internet addiction (IA) in adolescents of India, along with identifying the role of related factors such as gender and age . Results revealed that adolescents from three schools in North India indeed do show at least mild levels of addiction - characterized by losing track of time while on the internet that may occasionally result in negative consequences. A significant portion of the sample also showed moderate levels of addiction which suggests that they do experience noticeable levels of difficulties in operating in their daily lives, owing to their degree and nature of engagement with the internet. Another important finding was that male students from across all three schools were seen to have higher addiction levels than females. There exists abundant literature and news coverings highlighting the negative consequences of IA. To ensure that these negative consequences do not occur and/or aggravate, it is important to build awareness among the users regarding IA; the importance of their relationship with the internet and safe practices to follow to ensure that dependency and addiction do not result. Workshops, awareness programs etc. can be introduced within such schools for the same. On the larger scale, data from this study adds to the pool of information regarding the IA trends in India. The same may serve as an important source of information for policy-makers, regulatory bodies, and institutions.

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