ORIGINAL RESEARCH PAPER

Pharmacology

STUDY REGARDING ASSESSMENT OF INTERNET USE AND ACCESS IN SECONDARY SCHOOL STUDENTS OF A PRIVATE TEACHING INSTITUTION IN THANE CITY

KEY WORDS: Secondary school students, Internet, Uses & adverse effects.

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ABSTRACT

The present study was undertaken to assess the use of internet (net) in Secondary school students of a private school in Thane city. Total of 100 students of 8th, 9th & 10th class were enrolled for the study & asked to solve the questionnaire. It was noted that majority of the students of age 14 to 15 years accessed the net more frequently (72%). Girls used net more than boys and the net was accessed for Information purpose (93%) followed by communication (88%) and entertainment (66%). The students also mentioned that addiction (82%) was the most important & a major limitation of internet use along with other side effects.

INTRODUCTION:

The Internet (portmanteau of interconnected network) is a network of networks that consists of private, public, academic, business, and government networks of local to global scope. The term Internet was coined in 1974 as a shorthand for internetworking in the first TCP specification, written by Vinton Cerf, Yogen Dalal and Carl Sunshine.[1]

In November 2006, the Internet was included on USA Today's list of New Seven Wonders.[2]

The term Internet if used to refer to the specific global system of interconnected Internet Protocol (IP) networks, the word is a *proper noun* [3]. Some guides specify that the word need not be capitalized when used as an *adjective* [4]. The Internet is also often referred to as the "Net", as a short form of network. In1849, the word internetted was used as an *adjective*, meaning interconnected or interwoven.[5]. The designers earlier used internet both as a *noun* and as a *verb* in shorthand form of internetwork, meaning interconnecting computer networks [6].

Several newly coined words exist regards Internet use & users like "Netizen" (as in "citizen of the net") [7] refers to those actively involved in improving online communities. and " Digital citizen" refers to a person using the Internet in order to engage in society, politics, and government participation.[8]. The "Internaut" refers to operators or technically highly capable users of the Internet [9][10].

The internet rapidly expanded in Europe and Australia around mid to late 1980s [11][12] and to Asia in the early 1990s.[13]. In late 1990s, the traffic on public Internet grew by 100 % per year, with the mean annual growth of the Internet users to be between 20% and 50%.[14].

Some data obtained from various studies pertaining to Internet usage is provided below :

On 31st March 2011, the total number of Internet users were 2 billion (30% of world's population)[15]. In 2012, the individual users regularly to internet were 34% that grew up to 48% by 2017 end. [16]. From 2000 to 2009 period, the number of Internet users globally rose from 394 million to 1.85 billion.[17] and by 2010, (22 % of the world's population) accessed to computers with 1 billion Google searches daily, 300 million reading blogs, and 2 billion watching videos YouTube.[18]. In 2014 the world's Internet users crossed 3 billion (43% of world population), with 78% of the Europeans using the Internet, then 57.4 % of the Americas.[19]. But by 2018 it was found that Asians stood for 51% of all Internet users (with 2.2 billion / 4.3 billion Internet users in the world coming from Asia , China was the world's leading country in terms of Internet users, with more than 800 million users [20], then India, with around 700 million (70 crores) users and USA a with 275 million (27.5 crores) users.

The 2005 study in America, men using the Internet was very slightly ahead of women (as %), Men logged more often, spent more time online, and were more broadband users, while women used more of email. Men were more likely to pay bills and for downloading music and videos. However men and women equally used the Internet for shopping and banking.[21]

The 2008 study revealed that significant women compared to men, used internet for social networking although the ratios varied with age.[22]. Also women watched more streaming content and men were found to download more.[23]. Men were more likely to have a professional blog, whereas women having a personal blog.[24]. By 2020, its predicted that 44% of the world's population will be users of the Internet [25].

Looking at the above information available for Internet use & its gender wise differences seen, I thought of studying the internet use in secondary school students

MATERIAL & METHODS:

Total of **100 students** (**35** of Std. 8th & 9th and **30** of Std. 10th) of a Private School were enrolled in the study regards Internet use. They were asked to solve & submit the questionnaire form given to them 2 days later in the School Office. The completed forms were collected and data was analysed, calculated & computed.
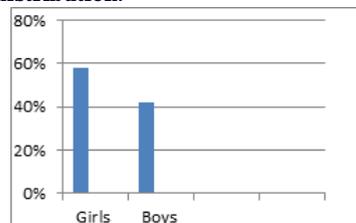
RESULTS:

All the students (100 number) did participate in the study.

Out of **100** Secondary school students enrolled in the study, **30%** were from 10th standard and **35%** were from 9th & 8th standard respectively.

AGE wise distribution of secondary school students:

Age range (Years / yrs.)	Percentage of students (%)
12 to 13 yrs	6%
13 to 14 yrs	10%
14 to 15 yrs	72%

GENDER distribution:

PLACE (of Internet use): Home = **64%,** Library = **25%** and Cybercafe = **11%**

FREQUENCY of Internet access:
Daily internet access mentioned by **95%** (10th class), **86%** (9th class) & **68%** (8th class), respectively. (Average use / day = **84.43%).**

4 to 5 times / day use (10th & 9th class students), **2 to 3 times / day** (8th Std.). Thus the (Average frequency = **2.6** to **3.6 times /day**). Frequency of use for Once /week, Several times / week & Once / month Internet usage = **NIL.**

E-mail access frequency: 2 to 3 times / day (10th class), **1 to 2 times** by (9th and 8th class) students. (Average = **1.3 to 2.33 /day**)

"WEB PAGE": 45% (10th Std.), 33% (9th Std.) and 19% (8th Std.). Average = **(32.3%)**
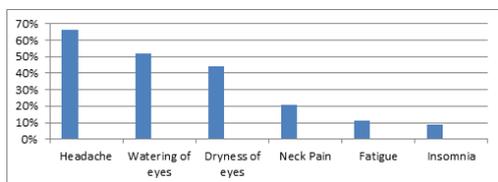
"Nickname" usage:

Class or Standard	Percentage (%) of students
10th class	73%
9th class	68%
8th class	54%

Average = **65%** of all Secondary school students used "nick name".

DURATION of Internet usage (**hours / day**): **5- 6 hours daily** (10th & 9th class), **2 to 3 hours /day** (8th Std.) [Average =**3 to 4 hrs / day].**

ADVERSE SYMPTOMS: noted in students post Internet use via "Bar chart" as shown below:

PAYMENT for Internet services:
Parents: **97%**, Self paid (by the student): **1%** and Private or Government organisation / Scholarship: **2 %.**

MERITS of Internet use:
Information (includes academic & updated information): **99 %,** communication (with relatives, friends): **87%,** shopping : **33% (**10th Std.**)** & **9% (** 9th class.), booking tickets (air ticket & rail reservation: **7%** and payment of bills (mobile & Internet recharge, telephone, electricity): **6%** (10th Std.) and **2%** (9th Std.).

DEMERITS of Internet use:
82% reported **"Addiction"** problem while **67%** mentioned of precipitation of **other adverse effects** like headache, neck sprain, fatigue, diminished vision, decrease intellectual ability, lethargy. (inclusive / overlapping with addiction).

INFLUENCE OF NET:
regards Work, Financial, Social & Family aspects**:** noted that **92%** of the students preferred to use net for academic purpose (to gather information about their school / exam time table, school syllabus / portion, online exams, projects material etc. pertaining to "Work aspect". The 10th class students were observed to be indulged in "On-line shopping" and also were more frequent users regards payment of bills compared to their 8th & 9th Std. regarding "Financial aspect". About the "Social aspect", entertainment activities (**66%**), chatting (**55%)** & Planning trip / vacation (**20%**) was observed in secondary school students. Communication (**88%**) with parents, relatives covered the "Family aspect" of internet usage.

ADVICE from Net**: 2%** students (Astrological), 5% students (Medical advice).

PURPOSE of Internet use:
Social Networking: **64%,** Entertainment (Movies, TV Sops)= **58%,** Gaming= **44%,**Shopping = **33%,** Music = **32%,** Sharing (notes / slides)**= 17%,** News = **8%,** Planning a Holiday **= 5%,** Trading **== NIL,**

SEARCH via Internet:
Local events = **45%,** Research = **20%,** Food recipies = **10%,** Academic activities = **88%,** Weather = **3%,** Job applications = **NIL,** Surveys = **18%,** Chat = **63%.**

DEVICES connected to the Internet: Laptop: **82%,** Desk Top**: 22%** and Smart phone: **4%.**

DISCUSSION:
It is seen from the study that students of **Age 14 to 15** years accessed the most frequently (**72%**). These students belong to **Std. 9th & 10th** probably require most of the Internet use for accessing the **information** about their study material, curriculum of the board, solving online exams / tests, exam time table, projects material & for collecting references. Perhaps this age group also used the net for shopping & payment of exam fees or bills over other age groups.

Girls dominated over Boys regards usage of internet reflecting more regular, studious & dedicated mindset over boys of same age groups.

Internet use was more seen at **home (place)** as students find it more comfortable place to study using net & personal data. Most of the schools also prohibit use of net in their school campus including library could be the reason of students preferring home for net use.

Frequency of internet access and email-access was seen in **10th Std.** & (9th & 10th Std.) respectively as requirement of internet is more pertaining to their syllabus and studies. Due to frequent need & use of internet, the **duration** of its use was also seen to be more in 10th class over 8th Std. The "**nickname**" addition was more in 10th class probably since the students feel more secured using nickname as it hides their personal identity. The actual reason was not stated by the students.

Headache was the most common adverse effect reported by the secondary school students followed by watering & dryness of eyes. **Neck pain** ranked 4th in the list side while NO student did complain of dizziness, depression & excitement. The risk of adverse effects should be informed to the students especially those using net for very long hours.

Parents did the payment of Internet for majority of school students while few students did payment from private or government organizations or from scholarship amount. Only one student did self payment.

Access to information, communication & learning were observed to be the **top 3 benefits** of internet use. Online shopping was more frequently seen in 10th Std. The secondary school students marked **"Addiction"** as the major demerit of internet use. It would be wise for the students therefore to limit the use of internet for a specific period of time in order to avoid development of addiction / dependence to internet.

92% of students accessed net for "**academic purpose**" followed by communication & entertainment. This indicate the restricted use of net by their parents at home as well as school authorities in school campus. Similarly "**Social networking**", entertainment & gaming topped the list regards purpose of using net. Being school students and not self earning at that age, probably NO one was using net for trading.

Majority of students used **laptop** to connect & access the internet. This can also be justified by the fact that mobile phone or smart phones were not being allowed in school

campus.

CONCLUSION:

The study undertaken to assess the use of internet among secondary students of a private teaching institute thus concludes that the internet was accessed by the students mostly for the academic purpose with girls more frequently using it.

The students were aware about the side effects of long term net use like addiction, headache & other symptoms and so should be told to access the net for few hours /day.

Thus **balanced use** of this technological innovation would be certainly very convenient & useful to the students to access information, communication, entertainment, shopping etc. as well as will avoid precipitation of any adverse effects.

Further future studies done on a larger scale using larger population would provide much more better confirmation about the internet's benefits & limitations.

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