

## RESEARCH ARTICLE

### Gender differences in internet preferences and usage pattern among medical students

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#### ABSTRACT


**Background:** Internet began with the development of electronic computers in the 1950s. Internet use is spreading rapidly into daily life, and directly affecting people's ideas and behavior. With the development of the internet, both male and female users to certain extent are unquestionably dependent on it as a medium of sharing ideas, building communication network as well as for searching information though there is the difference in opinion by some researchers regarding the internet usage among gender. **Aims and Objectives:** To study the gender differences in internet preferences and usage pattern among medical students. **Materials and Methods:** A cross-sectional study was carried on 120 1<sup>st</sup>-year MBBS students at PESIMSR, Kuppam. Data were collected with the help of a questionnaire. **Results:** The present study observed gender differences in awareness and pattern of internet use among 1<sup>st</sup>-year MBBS students which are relatively less compared to the previous studies. **Conclusion:** The internet has become an inseparable part of today's educational system. The academics of an individual increasingly depend on the internet for educational purposes. Absence of gender gap in internet usage is probably due to both genders having high exposure to the technology through their educational experience.

**KEY WORDS:** Gender Differences; Internet Usage; Medical Students

#### INTRODUCTION

Internet began with the development of electronic computers in the 1950s. It is a global system of interconnected computer networks that use the standard Internet protocol suite to serve billions of users worldwide.<sup>[1]</sup> Internet use is spreading rapidly into daily life, and directly affecting people's ideas and behavior. Internet has an impact in many areas including

the higher education system. Educators who advocate technology integration in the learning process believe that it improves learning and prepare students to effectively perform. Internet use has become a way of life for the majority of students all around the world. For most college students' internet is a functional tool that has greatly changed the way they interact with others. Internet is appealing for many as it reduces the time lag between the production and utilization of knowledge promotes the exchange of opinions and sharing of information and enables multidisciplinary research. Majority of the students reported internet as a helpful tool for worldwide communication, and use of internet actually helped them improving their grades through improved reading, writing, and information processing skills.<sup>[2]</sup> With the development of the internet, both male and female users to certain extent are unquestionably dependent on internet as

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a medium of sharing ideas, building communication network as well as for searching information. Thus, internet becomes the main channel for the entire information flow.

Role theory suggests that the sexual division of labor and societal expectation based on stereotypes leads to gender role.<sup>[3]</sup> Women traditionally are sensitive, emotional, and nurturing whereas men are expected to be assertive, analytical, and unemotional thus referring them as feminine and masculine, respectively.<sup>[4]</sup> However, observations by Tan *et al.* (2002) suggests that the influence of education, technology and fast economic growth have provided women with more opportunities to lead new roles and require greater partnership with men.<sup>[4]</sup> Today, digital media and internet have become a part of communication and information tool for many children. Internet access and use by children have been increasing throughout the world. Although internet is thought to be a global technology individuals do have differences with respect to gender. Gender differences in the use of internet among children have been well documented with studies in recent years.<sup>[5,6]</sup> Although the internet frequently has been characterized as male-dominated, recent evidence indicates that the gender differences in internet usage are rapidly diminishing.<sup>[7]</sup> Li and Kirkup indicated that gender difference still existed in college students in terms of access to and use of the internet, attitudes toward the internet, the frequency of internet use and self-assessment of internet competency.<sup>[8]</sup> According to Kim *et al.*, gender differences are noticed in the way how the information is processed, and decision-making is made in terms of internet usage.<sup>[3]</sup>

However, if we look into today's education opportunity and technology advancement, internet access and gender imbalance are not as significant as the access is readily available for both genders. Due to the difference in opinion regarding the internet usage among gender the present study is an attempt to quantify the gender difference in internet usage.

## MATERIALS AND METHODS

The present cross-sectional study was conducted at PESIMSR, Kuppam. The study population consisted of 120 1<sup>st</sup>-year MBBS students out of which 60 were boys and 60 were girls selected randomly based on their consent. Data were collected with the help of a questionnaire which was prepared by referring previously drafted questionnaires contained in the similar studies done earlier. The pro forma contained the questions regarding age, gender, use of computer and internet service, place and purpose of using internet, reasons for dissatisfaction with regard to internet services and various applications used by them. Before administering the questionnaire, the class was addressed regarding the purpose of the study and also assured that the collected details for the study are an attempt for improvement

in the facilities so that they are benefitted. They were also told that participation or otherwise in this study will not affect the relationship with either the researcher or the institution in which they are studying. After verbal informed consent from the study subjects, they were divided into groups of 40 and were made to sit in such a way that copying and discussion are not possible. The students were informed not to mention their identity so that they feel free to give true information. The returned questionnaires were checked for completeness.

## RESULTS

In the present study, 120 students (60 males and 60 females) were included among them; all students were using internet and majority felt it to be a useful tool [Table 1]. Among 120 students majority used the internet daily (81.6% of boys compared to 61.6% of girls). Most of them preferred to browse in the night (53.5 % of boys compared to 65% of girls). Both reported to use the internet most of the times for an hour [Table 2]. Most of the students preferred mobile (90% of boys and 87.4% of girls) for using internet followed by laptop, tablet, and desktop (1.4%) [Table 3]. Most of the individuals (55% of boys and 60% of girls) said that use of the

**Table 1: Distribution of study population according to use of computers**

Parameter	Yes	No
Do you feel internet useful	118	2
Do you use internet	120	0

**Table 2: Gender differences in internet access pattern among medical students**

Characteristics	n (%)	
	Males	Females
Frequency of internet usage		
Daily	49 (81.66)	37 (61.66)
Once a week	8 (13.2)	13 (21.6)
Fortnightly	1 (1.6)	1 (1.6)
Monthly	0	4 (6.6)
Hardly ever	3 (5)	6 (10)
Preference of time for internet usage		
Morning	1 (1.6)	2 (3.22)
Evening	19 (31.6)	20 (33.2)
Night	32 (53.2)	39 (65)
Late night	8 (13.2)	3 (5)
Time spend on internet		
1 h	24 (40)	26 (43.2)
2 h	18 (30)	14 (23.2)
3 h	4 (6.6)	3 (5)
4 h and above	13 (21.6)	18 (30)
Based on mood	2 (3.22)	

internet was time saving and the next reason for its use being an easily accessible tool [Table 4]. Most of them reported the use of the internet to browse for text materials [Table 5]. Both of them complained of slow speed, and majority of girls reported to have problems in downloading [Table 6]. The main accessed website reported by both genders was Google followed by Yahoo, Bing, MSN and Opera Mini [Table 7].

## DISCUSSION

The present study observed gender differences in awareness and pattern of internet use among 1<sup>st</sup>-year MBBS students which are relatively less compared to the previous studies. All the students included in the study were using internet which was quite similar to the studies of Aggarwal Summit *et al.*<sup>[9]</sup> When frequency of internet usage was observed majority used internet services daily which shows that the internet has become an integral part of their daily activities and both boys and girls

**Table 3: Appliance chosen for internet usage**

*Appliance	n (%)	
	Males	Females
Laptop	3 (5)	2 (3.22)
Desktop	1 (1.6)	-
Mobile	54 (90)	56 (87.4)
Tablet	2 (3.22)	2 (3.22)

\*Multiple answers were given

**Table 4: Preference for internet usage**

*Reason	n (%)	
	Males	Females
Easy accessibility	31 (51.6)	36 (60)
Time saving	33 (55)	36 (60)
Latest knowledge	13 (21.6)	3 (5)

\*Multiple answers were given

**Table 5: Materials searched**

*Materials	n (%)	
	Males	Females
Text	47 (78.33)	36 (60)
Pictures	20 (33.3)	28 (46.7)
Video	27 (45)	32 (53.3)

\*Multiple answers were given

**Table 6: Difficulty faced during internet usage**

*Difficulty faced	n (%)	
	Males	Females
Slow speed	48 (80)	42 (70)
Irrelevant information	7 (11.6)	9 (15)
Downloading problem	12 (20)	26 (43.3)

\*Multiple answers were given

**Table 7: Website used for searching information**

*Website	n (%)	
	Males	Females
Google	59 (98.3)	60 (100)
Yahoo	3 (5)	1 (1.6)
MSN	-	1 (1.6)
Bing	-	1 (1.6)
Others	2 (3.2)	-

\*Multiple answers were given

preferred to access internet on their internet-enabled mobile and <10% preferred laptop/desktop which is in contrast to the findings of Unnikrishnan *et al.* who observed that 62% UG medical students access internet using personal computers.<sup>[10]</sup> Preference for mobile might be because of portability of the device and recent development in features. Both boys and girls preferred to browse in the night, and the main accessed website reported among UG students were Google followed by Yahoo which was quite similar to the findings of Neeraj and Swarupa<sup>[11]</sup> The appliances chosen, preferences and reasons for the use of internet services did not differ much among gender which is quite similar to the observations of Thanuskodi and Khan *et al.* and also Anasi and Owoeye<sup>[12-14]</sup> though earlier studies by Chen *et al.*<sup>[15]</sup> and many others suggested gender gap. Similarities in use may be probably because both genders have high exposure to the technology through their educational experience to realize their capabilities and reach the full potentials most of the students were aware of recent applications and were using the same for both academic and entertainment purpose which shows the awareness about recent developments in the information technology world supporting the findings of Pujazon-Zazik and Park who concluded that girls and boys have relatively equal interest in computers use the internet differently for different purposes. Online social media, such as social networking sites (e.g., Facebook and MySpace), blogs, status updating sites (e.g., Twitter) and chat rooms, have become integral parts of children and young adult's lives.<sup>[16]</sup>

## Strength and Limitations of the Study

The findings of the present study are interesting enough to know the change in the awareness and usage pattern among students and the difficulties faced during its use compared to studies done earlier. However, our study included a sample involving only 1<sup>st</sup> year students. Further studies involving a larger group may be required for detailed information regarding the trend in internet usage pattern.

## CONCLUSION

The internet has become an inseparable part of today's educational system. The academics of an individual increasingly depend on the internet for educational purposes. In the recent years, policymakers in India have given top

priority to the information and communication industry and have taken a number of favorable steps for development in this regard. Absence of gender gap in internet usage is probably due to both genders having high exposure to the technology through their educational experience.

## REFERENCES

1. Kumari HA, Mahadevamurthy M, Hydarali. Awareness and Use of Internet Facilities by the Students of Vidya Vikas Institute of Management Studies in Mysore City: A study. Tumkur: National Conference on Inspiring Library Services (NCILS-2013); 2013. Available from: <http://www.eprints.uni-mysore.ac.in/id/eprint/13857>.
2. Suhail K, Bargees Z. Effects of excessive internet use on under graduate students in Pakistan. *Cyber Psychol Behav* 2006;9:297-307.
3. Kim DY, Lehto X, Morrison AM. Gender differences in online travel information search: Implication for marketing communication on the Internet. *Tourism Manage* 2007;28:423-33.
4. Munusamy K, Ismail M. Influence of gender role on internet usage pattern at home among academicians *Uluslararası Sosyal Ara\_tirmalar Dergisi. J Int Soc Res* 2009;2:309-18.
5. McQuillan H, O'Neill B. Gender differences in children's internet use: Key findings from Europe. *J Child Media* 2009;3:366-78.
6. Madell D, Muncer S. Gender differences in the use of the Internet by English secondary schoolchildren. *Soc Psychol Educ* 2004;7:229-51.
7. Weiser EB. Gender differences in internet use patterns and internet application preferences: A two-sample comparison. *Cyber Psychol Behav* 2000;3:167-78.
8. Li N, Kirkup G. Gender and cultural differences in Internet use: A study of China and the UK. *Comput Educ* 2007;48:301-17.
9. Aggarwal Sumit S, Ambalkar Deepti D, Kalpana K. Pattern of internet use among medical students: A cross sectional study. *Asian J Sci Technol* 2015;6:1285-8.
10. Unnikrishnan B, Kulshrestha V, Saraf A, Agrahari AC, Prakash S, Samantaray L, *et al.* Pattern of computer and internet use among medical students in coastal south India. *S East Asian J Med Educ* 2008;2:18-25.
11. Neeraj C, Swarupa C. Internet access and utilization among medical undergraduate and post graduate students of a Medical College in Madhya Pradesh. *Natl J Community Med* 2015;6:78-81.
12. Thanuskodi S. Gender Differences in Internet Usage Among College Students: A Comparative Study. *Library Philosophy and Practice (e-journal)*; 2013. p. 1052. Available from: <http://www.digitalcommons.unl.edu/libphilprac/1052>.
13. Khan MA, Shabbir F, Rajput TA. Effect of gender and physical activity on internet addiction in medical students. *Pak J Med Sci* 2017;33:191-4.
14. Anasi SN, Owoeye JE. Gender discrepancy in attitude towards the use of the internet for learning among secondary school students in selected schools in Lagos State, Nigeria. *Inf Knowl Manage* 2016;6. Available from: <http://www.iiste.org> ISSN 2224-5758 (Paper) ISSN 2224-896X (Online).
15. Chen B, Liu F, Ding S, Ying X, Wang L, Wen Y, *et al.* Gender differences in factors associated with smartphone addiction: A cross-sectional study among medical college students. *BMC Psychiatry* 2017;17:341.
16. Pujazon-Zazik M, Park MJ. To tweet, or not to tweet: Gender differences and potential positive and negative health outcomes of adolescents' social internet use. *Am J Mens Health* 2010;4:77-85.

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