



# Use of Internet and Its Influence on Health: A Study on the Postgraduate Students of Assam University

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**Citation:** Anamika Kar et al. (2024) Use of Internet and Its Influence on Health: A Study on the Postgraduate Students of Assam University, *Educational Administration: Theory and Practice*, 3(5), 5042-5050

Doi: 10.53555/kuey.v3oi5.3251

## ARTICLE INFO

## ABSTRACT

: In recent years, the usage of the Internet has increased dramatically among young adults. As Internet use is mostly a sedentary activity, spending too much time on internet may lead to a range of health issues such as obesity, heart disease, diabetes, postural deformity and eye problems. The present study conducted on 592 postgraduate students of Assam University Silchar aims to find out the influence of internet use on the physical health of the respondents. The objectives of the study are to find the extent of internet use among the respondents, to study the awareness of the respondents about the physical health issues associated with the use of smartphones and internet, and to explore the relationship between the extent of internet use and their self-reported physical health problems. A mixed method approach has been adopted to realize the objectives of the present study. The result indicates that most of the respondents are moderate users of internet. Also, most of the respondents are aware of the health problems associated with the use of smartphones and internet. There is a significant relationship between the extent of internet use and the frequency of occurrence of the self-reported physical health problems of the respondents.

**Keywords:** Use of internet, extent of internet use, physical health

## 1.0 Introduction:

The internet is an astounding invention in the history of human civilization. The usage of the internet by young adults has increased dramatically in recent years. There were 16 million internet users worldwide in 1995. The figure rose to 361 million in December 2000. In December 2005, the first billion was reached, and in December 2010, the second billion. Today, about two-thirds of people on the planet have means of entry to the world of internet. According to the reports of statista.com, 5.44 billion people were using the Internet actively as of April 2024 which is approximately 63% of the world population.

In the 21<sup>st</sup> century, the internet has occupied a central place in our lives by expanding its presence in all dimensions of our day-to-day activities especially using smartphones and computers. The biggest screentime consumers are from Africa, Asia, and South America. As per data, an average Indian spends around 6 hours and 23 minutes daily attached to screens, and out of this, 3 hours and 55 minutes on mobile internet.

### 1.1 Significance of the study:

Internet use is primarily a sedentary activity. Spending too much time on internet may lead to a variety of physical health issues such as obesity, heart disease, and diabetes. Furthermore, we frequently use our devices with poor body postures, such as putting a lot of pressure on our neck and spine, which may result in postural deformity and musculoskeletal disorders over time. Digital eye strain is another real problem resulting from screen attachments. When we are glued to our devices, we do not blink our eyes much, which results in dry eyes. It may also cause headaches, blurred vision, burning or itchy eyes, etc. With prolonged use of earphones or ear pods, our ears are also at risk, as listening to music or podcasts with earphones or ear pods for longer durations affects the soft membranes of our eardrum, thus increasing the risk of premature hearing loss.

Accessing mobile internet hours before bedtime interrupts our natural sleep pattern because the screen light inhibits the creation of the melatonin hormone, which governs sleep. Long-term sleep deprivation can lead to serious physical health concerns.

Previous studies on the effect of internet use on physical health showed significant results. According to the American Optometric Association (AOA), a significant number of patients complain about eye strain as well as back and neck pain in association with using the internet with a computer or mobile device. Findings from Zheng et al. (2016) indicate that dry eyes, blurred vision, and neck pain are the most common physical health problems related to the use of the internet. Internet addiction may also cause obesity, back pain, hearing problems, and a decline in physical activity (Aziz et al., 2021). Studies have reported bidirectional relationships between internet addiction and both depressive symptoms and physical health (Kelley and Gruber, 2013).

The ever-increasing spread of internet technology has given rise to great demands for its use in every area of our day-to-day lives. However, the negative effects of internet use on an individual's physical, psychological and social wellbeing indicate the necessity of exploring the extent of internet use and its influence on various psychosocial variables. From this viewpoint, the researcher attempted to explore the extent of Internet use and its influence on the physical health of the postgraduate students at Assam University, Silchar, situated in Cachar district in the state of Assam, India.

### 1.2 Objectives of the study:

The following are the objectives of this research:

1. To find out the extent of internet use among the postgraduate students of Assam University.
2. To examine the awareness of the postgraduate students of Assam University about the physical health problems associated with the use of smartphone and internet.
3. To explore the relationship between the students' extent of internet use and their self-reported physical health problems.

### 1.3 Research Questions:

The following research questions were framed for the objectives 1 and 2.

1. What is the extent of internet use by the postgraduate students of Assam University?
2. Are the students aware about the physical health problems associated with the use of smartphone and internet?
3. Do they suffer from any physical health problems associated with the use of smartphones and internet?

### 1.4 Hypothesis:

The following null hypothesis is formulated for objective 3.

Ho: There is no significant relationship between the students' extent of internet use and the frequency of occurrence of their self-reported physical health problems.

### 1.5 Operational Definitions:

#### Use of Internet:

In this study, use of internet refers to the extent of internet use by the students of Assam University for different purposes. By the extent of internet use, the researcher meant the time spent by the students in a day on internet in terms of hours.

#### Health:

Health is described as a state of complete well-being. According to the World Health Organisation, health is a "state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity."

In the present study, health refers to the physical well-being of internet users. The study aims to examine postgraduate students' awareness of the physical health risks related with smartphone and internet use, as well as explore the relationship between the extent of internet use and the perceived health issues of Assam University postgraduate students.

## 2.0 Review of literature:

**Nalwa and Anand (2004)**, in their study "Internet Addiction in Students: A Cause of Concern" among the 16- to 18-year-old school children in India, identified two groups: dependents and non-dependents. There were significant differences in behavioural and functional usage between the two groups. Dependents were discovered to put off other tasks in order to spend time online, to lose sleep due to late-night logging on to internet, and to believe that life would be dull without the internet. The number of hours spent on the internet by dependents was more than that of non-dependents. Significant disparities in loneliness measures were detected between the two groups, with dependents scoring higher than non-dependants.

**Shuhail & Bergees (2006)**, in their study "Effects of excessive internet use on undergraduate students in Pakistan" conducted on 200 undergraduate students of Lahore reported that excessive use of internet could result in a range of academic, physical, psychological and interpersonal problems. They developed Internet

Effect Scale with seven dimensions to study these effects. However, majority of the students reported positive effects of internet use than the negative effects.

**Li and Chung (2006)**, in the study “Internet function and Internet addictive behaviour”, reported the people who make use of the Internet for social networking purposes for an extended period of time may experience problems such as addictive Internet use, disconnecting from social engagements, decreased tolerance, time management problems, interpersonal problems, as well as health and wellness related problems. The investigators also claimed that overuse of the internet leads to more serious Internet addiction in users. According to the researchers, it is critical to understand how people using the internet build relationships with their peers, whether through online or traditional social interactions. It is also vital to figure out whether people miss social interaction, if they are more at ease with virtual friends, and if they minimise interactions with people in the real world. Furthermore, interpersonal difficulties can be identified based on family members' concerns about users' excessive Internet use. In addition, feelings of isolation that result in overuse of the internet can be used to identify interpersonal difficulties.

**Kim et al. (2009)**, in “Brief report: Predictors of heavy Internet use and associations with health-promoting and health-risk behaviours among Hong Kong university students”, reported that heavy users of Internet (users spending more than 4 hours per day on internet) were much less likely to engage in the following health-promoting behaviours than the rest: attempting to eat a healthier diet, taking nutritional supplements, trying to increase physical activity levels. The heavy users of internet were found to be overweight (BMI >25), had hypersomnia (>10 h of sleep/day), and had adverse effects on their studies.

**Cain & Gradisar (2010)** in their study “Electronic media use and sleep in school-aged children and adolescents: A review” summarized the findings of 36 papers which discussed the effect of the use of electronic media on the sleep patterns of school-going kids and teenagers. The use of electronic media included using computers, playing video games, watching television, using the internet, and listening to music. The research looked at a host of variables. The two factors most consistently linked to electronic media use were found to be delayed bedtimes and shorter overall sleep durations.

**Belanger et al. (2011)**, in their study “A U-shaped association between intensity of internet use and adolescent health,” surveyed 3305 girls and 3906 teenage boys. Depending on their daily use of Internet in hours, the boys and girls were divided into four groups: Heavy Internet users (HIUs; daily use of more than two hours), regular Internet users (RIUs; multiple days a week and daily use of less than two hours), occasional users (weekly use of less than or equal to 1 hour), and non-Internet users (NIUs; no use in the previous month). Perceived health, depression, obesity, headaches, back discomfort, and inadequate sleep were among the health issues that were investigated. Heavy Internet users of both genders were more likely to report greater depression scores in a controlled multivariate analysis using regular Internet users as a reference. The male users were found to be at increased risk of being overweight, and the female users were at increased risk of getting too little sleep. The heavy user group was found to be at higher risk of acquiring health problems due to their lack of health-promoting practices and proclivity of engaging in health-risk behaviours.

**Kodavanji et al. (2014)** studied the “Impact of internet use on lifestyle in undergraduate and medical students” by administering Young's Internet Addiction Test on 90 (18 to 20 year old) undergraduate medical students. Those who scored greater than or equal to 50 in the Internet Addiction Test were categorised as addictive internet users, and those who scored less than 50 were categorised as non-addictive users of internet. Environmental stressors and lifestyle characteristics such as sleep, food patterns, physical activities, and hobbies were examined between the two groups—addictive and non-addictive. Sleep was significantly disrupted in the addicted internet user group. When compared to the non-addictive internet user group, the addictive internet user group had higher sleepiness during the day and a higher prevalence of environmental stressors.

**Cam and Nur (2015)** used the Internet Addiction Test and the Dukes Health Profile to evaluate the incidence of internet addiction and its associated psychopathological manifestations and obesity in adolescents with 1175 high school students from three high schools in Giresun City, Turkey. The study included 1,175 adolescents, (588 females and 587 males). They reported that problematic internet use was prevalent in 7.1% of adolescents. Those who used the internet excessively scored high on anxiety, depression, and both anxiety and depression. However, they discovered no link between problematic internet use and adolescent obesity.

### 3.0 Methodology:

Given the nature and objectives of the current study, a mixed-methods design that incorporates features of both quantitative and qualitative research approaches has been adopted. This is a descriptive survey study in which extensive and precise information was gathered to characterise the facts connected to the variables. The acquired data was first structured using Excel sheets, then tabulated and explained by the researcher as part of the process of drawing generalisations and conclusions based on the previously defined objectives, research questions, and hypotheses.

### 3.1 Locale of the study:

The study has been conducted at Assam University, Silchar (Latitude 24.68 degrees North and Longitude 92.75 degrees East), which is situated at Dargakona in the district of Cachar within the state of Assam, India. The university is situated at a distance of 21 km from the district headquarters in Silchar.

### 3.2 Population:

The population of present study is all the post graduate students of Assam University. The university has sixteen schools on major disciplines. There are 35 departments under these 16 schools. The current student strength is around 4500 out of which around 1500 students are from UG/IG courses. Thus, the total population of PG students is around 3000.

### 3.3 Sample and Sampling procedure:

The researcher collected data for the current study from a total of 16 departments. Six departments from the Arts stream viz., Philosophy, Economics, Education (MA), Political Science, English and Bengali, five departments from the Science stream viz., Chemistry, Physics, Mathematics, Ecology and Life Science, one department from the Commerce stream and four departments from Professional courses viz., Education (MED), Mass Communication, Business Administration and Law (LLM) were selected for the collection of data. The sample included 592 postgraduate students from 16 departments at Assam University, Silchar. The sampling was done purposively and incidentally.

### 3.4 Tools used for the study:

For the present study, the researcher used the following tools:

- (i) To examine the extent of the use of the internet and the pattern of internet usage, a questionnaire has been developed by the researcher which consists of 16 items.
- (ii) A questionnaire with 14 items was developed by the researcher to collect information regarding the awareness of the students about the health problems associated with the use of internet and smartphones.
- (iii) A personal information schedule was prepared by the researcher to collect relevant data.

### 3.5 Techniques of data analysis

According to the objectives of the study, the collected data were categorised and tabulated. The investigator used descriptive statistics to analyse the data, like percentage, mean and standard deviation. To examine the relationships between the independent and dependent variables and testing the Hypotheses, the Pearson's Chi-square tests were employed.

Based on the responses of the respondents on Internet Use Questionnaire, the respondents were categorized into light, moderate and heavy users according to their extent of daily internet use in hours. The categorization was done by calculating the mean of the daily internet usage of all the respondents in hours. The mean came out to be 3.56 and the standard deviation 1.84. With the help of this mean and standard deviation, the researcher classified the respondents into three categories viz. Heavy users, Moderate users and Light users on the basis of their daily internet usage.

The table-1 represents the mean and standard deviation of the daily use of internet in hours by the respondents as revealed by them.

**Table 1: Mean and Standard Deviation of respondents' daily use of internet in hours**

Sample Size (N)	Mean	Standard Deviation (SD)	Mean + SD	Mean - SD
592	3.56	1.84	5.4	1.72

Based on the above table, in the present study, Heavy users refer to those who spend more than five hours on internet daily, Light users are those who spend up to two hours and Moderate users are those who spend three to five hours on internet every day.

## 4.0 Analysis and Interpretation of Data:

The collected data have been analyzed and the results are presented as per the objectives of the study.

### 4.1 Extent of internet use:

It was observed from the analysis of the collected data that every respondent was an active user of internet. Also, the majority of the respondents are moderate users of internet.

Out of 234 male respondents, 39.74% are moderate users, 31.20% are light users and 29.06% are heavy users of internet. The data indicates that the percentage of male respondents is on the higher side in the heavy user category while that of female respondents is on the higher side in the light and moderate user category.

Thus, we can say that males outnumbered females in the heavy user category in terms of percentage whereas the female respondents outnumbered males in the light and moderate user category.

Table- 2 shows the sex wise distribution of data and the extent of internet users.

**Table-2: Sex-wise distribution of the respondents' extent of internet use**

Internet Use	Sex		Grand Total N=592
	Male N=234	Female N=358	
<b>Light</b> (Up to 2 hours per day)	73 (31.20%)	123 (34.36%)	196 (33.11%)
<b>Moderate</b> (2-5 hours per day)	93 (39.74%)	153 (42.74%)	246 (41.56%)
<b>Heavy</b> (More than 5 hours per day)	68 (29.06%)	82 (22.91%)	150 (25.34%)

#### 4.2 Awareness of the respondents about the health hazards associated with the use of smartphone and internet:

The respondents were asked whether they thought that use of smartphone and internet affected the health of an individual. Table 3 represents the sex wise distribution of the responses regarding awareness about the health problems associated with the use of smartphone and internet.

**Table 3: Sex-wise distribution of the responses regarding awareness about the health problems associated with the use of smartphone and internet**

Description of the item	Yes			No			Not Sure		
	Male N=234	Female N=358	Total N=592	Male N=234	Female N=358	Total N=592	Male N=234	Female N=358	Total N=592
<b>Do you think use of smartphone and internet can affect the health of an individual?</b>	219 (93.59%) N=234	331 (92.46%) N=358	550 (92.91%) N=592	05 (2.14%) N=234	08 (2.23%) N=358	13 (2.19%) N=592	10 (4.27%) N=234	19 (5.31%) N=358	29 (4.90%) N=592

Out of 592 respondents, 92.90% responded in the affirmative, while 2.20% responded in the negative, and 4.90% were not sure about the item.

Amongst the 358 female respondents, 92.46% thought that use of smartphone and internet affected the health of an individual, 5.32% were not sure and 2.23% thought that use of smartphone and internet did not affect the health of an individual.

There are 234 male respondents, out of which 93.59% thought that use of smartphone and internet affected the health of an individual, 4.27% were not sure and 2.14% thought that use of smartphone and internet did not affect the health of an individual.

The majority of the post graduate students of Assam University are aware of the health problems associated with the use of smartphone and internet.

#### 4.3 Perceived health problems associated with the use of smartphone and internet

The students were asked whether they suffered from any of the physical health problems associated with the use of the smartphone and internet as perceived by them and what was the frequency of occurrence of that particular problem, if any. Table 4 represents the sex wise distribution of respondents suffering from physical health problems related to the use of smartphone and internet.



**Table 4: Sex wise distribution of respondents suffering from physical health problems related to the use of smartphone and internet**

Type of Health Problem	Sex		
	Male	Female	Total
Physical	93 (39.74%) N=234	161 (44.97%) N=358	254 (42.90%) N=592

Out of the 592 respondents, 42.90% suffered from physical health problems related to the use of smartphone and internet.

44.97% of the 358 female respondents and 39.74% of the 234 male respondents perceived that they suffered from physical health problems associated with the use of internet.

A cross-table (Table 5) was prepared to explain the relationship between the extent of internet use and the physical health problems faced by the postgraduate students of Assam University as perceived by them.

**Table 5: Extent of internet use and frequency of occurrence of physical problems of the respondents**

Internet Use	Problems related to Physical Health								
	Most of the times			Sometimes			Rarely		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Heavy	21 (77.78) N=27	33 (75.00) N=44	54 (76.00) N=71	09 (34.61) N=26	17 (25.37) N=67	26 (27.96) N=93	07 (17.50) N=40	12 (24.00) N=50	19 (21.11) N=90
Moderate	06 (22.22) N=27	11 (25.00) N=44	17 (23.94) N=71	14 (53.85) N=26	34 (50.75) N=67	48 (51.61) N=93	22 (55.00) N=40	15 (30.00) N=50	37 (41.11) N=90
Light	00 (0.00) N=27	00 (0.00) N=44	00 (0.00) N=71	03 (11.54) N=26	16 (23.88) N=67	19 (20.43) N=93	11 (27.50) N=40	23 (46.00) N=50	34 (37.78) N=90
Total	27 (29.03) N=93	44 (27.33) N=161	71 (27.95) N=254	26 (27.95) N=93	67 (41.61) N=161	93 (36.62) N=254	40 (43.01) N=93	50 (31.05) N=161	90 (35.43) N=254

*\*Figures in the parenthesis indicate the percentage of the total population*

Amongst the 254 respondents who reported to suffer from physical problems related to the use of smartphone and internet, 36.62% reported to suffer from those problems sometimes, 35.43% rarely and 27.95% most of the times.

There are 93 respondents who suffer from those problems sometimes. Out of them, 51.61% are moderate users of internet, followed by 27.97% heavy users and 20.43% light users.

Out of the 90 respondents reportedly suffering from these problems rarely, 41.11% are moderate users, 37.78% light users and 21.11% heavy users of internet.

Amongst the 71 respondents who suffer from those problems most of the times, 76.06% are heavy users of internet, followed by 23.94% moderate users and 0.00% light users.

**Table 6: Sex-wise representation of the heavy users suffering from physical health problems related to use of internet and smartphones.**

Occurrence of physical health problems	Sex		
	Male	Female	Total
Most of the times	21 (31)	33 (40)	54 (36)
Sometimes	09 (13)	17 (21)	26 (17)
Rarely	07 (10)	12 (15)	19 (13)
Never	31 (46)	20 (24)	51 (34)
Total	N=68	N=82	N=150

*\*Figures in the parenthesis indicate the percentage of the total population*

There are 150 heavy users of internet. Amongst them, 36% reported to suffer from perceived physical health problems associated with the use of smartphone and internet most of the times, followed by 34% never, 17% sometimes and 13% rarely.

Out of the 82 female heavy users, 40% reported to suffer from those perceived physical health problems most of the times, 24% never, 21% sometimes and 15% rarely.

Amongst the 68 male heavy users of internet, 46% reported to never suffer from those perceived physical health problems, followed by 31% most of the times, 13% sometimes and 10% rarely.

**Table 7: Sex-wise representation of the moderate users suffering from physical health problems related to use of internet and smartphone**

Occurrence of physical health problems	Sex		
	Male	Female	Total
<b>Most of the times</b>	06 (6)	11 (7)	17 (7)
<b>Sometimes</b>	14 (15)	34 (22)	48 (19)
<b>Rarely</b>	22 (24)	15 (10)	37 (15)
<b>Never</b>	51 (55)	93 (61)	144 (59)
<b>Total</b>	<b>N=93</b>	<b>N=153</b>	<b>N=246</b>

*\*Figures in the parenthesis indicate the percentage of the total population*

There are 246 moderate users of internet. Amongst them, 59% reported to never suffer from their perceived physical health problems associated with the use of smartphone and internet, followed by 19% sometimes, 15% rarely and 7% most of the times.

Out of the 153 female moderate users, 40% reported to never suffer from those perceived physical health problems, 22% sometimes, 10% rarely and 7% most of the times.

Amongst the 93 male moderate users, 55% reported to never suffer from those perceived physical health problems, followed by 24% rarely, 15% sometimes and 6% most of the times.

**Table 8: Sex-wise representation of the light users suffering from physical health problems related to use of internet and smartphone**

Occurrence of physical health problems	Sex		
	Male	Female	Total
<b>Most of the times</b>	00 (0)	00 (0)	00 (0)
<b>Sometimes</b>	03 (4)	16 (13)	19 (10)
<b>Rarely</b>	11 (15)	23 (19)	34 (17)
<b>Never</b>	59 (81)	84 (68)	143 (73)
<b>Total</b>	<b>N=73</b>	<b>N=123</b>	<b>N=196</b>

*\*Figures in the parenthesis indicate the percentage of the total population*

There are 196 light users of internet. Amongst them, 73% reported to never suffer from their perceived physical health problems associated with the use of smartphone and internet, followed by 17% rarely, 10% sometimes and 0% most of the times.

Out of the 123 female light users of internet, 68% reported to never suffer from those perceived physical health problems, 19% rarely, 13% sometimes and 0% most of the times.

Amongst the 73 male light users of internet, 81% reported to never suffer from those perceived physical health problems, followed by 15% rarely, 4% sometimes and 0% most of the times.

The data reflects that none of the light users of internet suffered from the perceived physical health problem associated with the use of smartphone and internet most of the times, whereas a significant percentage of heavy users suffered from those problems most of the time.

#### **Testing of Hypothesis 4(i). There is no significant relationship between the students' extent of internet use and the frequency of occurrence of their self-reported physical health problems.**

A chi-square test of independence was used to examine the relationship between the extent of internet use and the frequency of occurrence of physical health problems associated with the exposure to smartphone and internet as perceived by the postgraduate students of Assam University.

For this, the following null hypothesis was formulated.

Ho: There is no significant relationship between the extent of internet use and the occurrence of physical health problems associated with the exposure to smartphone and internet as perceived by the postgraduate students of Assam University.

**Table 9: Relationship between the Extent of Internet use and the frequency of occurrence of the self-reported physical health problems of the respondents**

Internet Use	Frequency of occurrence of physical health problems					Chi-square	df	P-value	Remark
	Most of the times	Sometimes	Rarely	Never	Total				
Low	00(0)	19(20)	34(38)	143(42)	196(33)	131.93	6	<0.001	Significant
Moderate	17(24)	48(52)	37(41)	144(43)	246(42)				
Heavy	54(76)	26(28)	19(21)	51(15)	150(25)				
Total	71(100)	93(100)	90(100)	338(100)	592(100)				

*\*Figures in the parenthesis indicate the percentage of the total population*

Thus, the relation between the extent of internet use and the occurrence of physical health problems associated with the exposure to smartphone and internet as perceived by the postgraduate students of Assam University was found significant at .05 level.

Hence, the null hypothesis is rejected.

There is a significant relationship between the extent of internet use and the occurrence of physical health problems associated with the exposure to smartphone and internet as perceived by the postgraduate students of Assam University.

Similar trends were noticed in the studies conducted by Kelley and Gruber (2013) and Zheng et al (2016).

### 5.0 Major Findings:

1. It was observed from the analysis of the collected data that every respondent was an active user of internet. Also, the majority of the respondents are moderate users of internet.
2. The percentage of male respondents is on the higher side in the heavy user category while that of female respondents is on the higher side in the light and moderate user category. Males outnumbered females in the heavy user category whereas the female respondents outnumbered males in the light and moderate user category. The higher percentage of males in the heavy users group indicate that men are more intense users of internet. However, the lower percentage of females in the heavy user category may be due to the higher involvement of them in the household chores.
3. Majority of the post graduate students of Assam University are aware of the health problems associated with the use of smartphone and internet. Amongst the 592 respondents, 80.91% believed that prolonged use of smartphone and internet might develop problems related to physical health such as headache, eye problems like redness of eyes, strain in the eye and blurred vision, neck pain, backpain, carpal tunnel syndrome, spondylitis, developing bad posture, digestion problem, poor and irregular food habits, sleep deprivation and insomnia.
4. Approximately 42% of the total respondents self-reported to suffer from different physical health problems associated with use of smartphone and internet.
5. None of the light users of internet suffers from the perceived physical health problem associated with the use of smartphone and internet most of the times, whereas a significant percentage of heavy users suffers from those problems most of the time.
6. The relation between the extent of internet use and the occurrence of physical health problems associated with the exposure to smartphone and internet as perceived by the postgraduate students of Assam University was found significant at .05 level. Hence, there is a significant relationship between the extent of internet use and the occurrence of physical health problems associated with the exposure to smartphone and internet as perceived by the postgraduate students of Assam University.

### 6.0 Conclusion:

The use of internet in the field of education and learning has played a pivotal role in democratization of education. Internet has made knowledge accessible to all by defying the constraints of space and time. The internet can be used in many ways. This includes research, collaborative studies, e-learning, online courses, virtual tours, career planning and development, access to infinite volume of open educational resources (OER), personalized self-paced learning etc. The internet provides diverse learning opportunities to all who are willing to learn. It enhances communication and collaboration among students and educators across the globe.

While internet brings the people of the world closer by connecting them online, spending too much time on internet may lead to problems related to different dimensions of health and wellbeing. In the present study, use of internet is found to be significantly related to the occurrence of several physical health related problems. Though internet has become an integral part of our daily life without which the modern civilization seems impossible to run smoothly, yet judicious and effective use of this unprecedented technological innovation is the need of the hour. The teachers and parents should guide the young learners in using the internet in the



most productive way to enhance their knowledge and skills. The parents, teachers and all other stakeholders should play their parts in educating today's youngsters about the effective and meaningful use of internet to make their education and overall life more productive and fulfilling.

### References

1. Aziz et al. (2016). Digital Addiction and Mental-Physical Health: A Scenario in Asia. *International Journal of Academic Research in Business and Social Sciences*, 13(1), 1682– 1690.
2. Bèlanger, R. E. Akre, C. Berchtold, A., & Michaud, P. (2011). A U-shape association between intensity of internet use and adolescent health. *Pediatrics*, 127(2), 330-335.
3. Cain, N. and Gradisar, M. (2010). Electronic media use and sleep in school-aged children and adolescents: A Review. *Sleep Medicine*, 11(8), 735–742.
4. Cam, H. and Nur, N. (2015). A Study on the prevalence of Internet addiction and its association with psychopathological symptoms and obesity in adolescents. *TAF Preventive Medical Bulletin*, 14(3), 181-188.
5. Kar, A and Bagchi, G. (2023). To study the perception of the postgraduate students of Assam University on the changing patterns of social relationships in the internet age. *TIJER*, 10(6), 645-657.
6. Kelley and Gruber (2013). Problematic Internet use and physical health. *Journal of Behavioural Addictions*, 2(2):108-12.
7. Kim et al. (2009). Brief report: Predictors of heavy Internet use and associations with health-promoting and health-risk behaviours among Hong Kong university students. *Journal of Adolescence*, 33(1): 215-220.
8. Kodvanji, B. et al. (2014). Impact of internet use on the life style in undergraduate medical students. *International Journal of Reality Therapy*, 27 (2),4-12.
9. Li and Chung (2006). Internet function and internet addictive behaviour. *Computers in Human Behaviour*, 22(6): 1067-1071.
10. Nalwa, K. and Anand, A. (2004). Internet Addiction in Students: A cause of Concern. *Cyber Psychology and Behavior*, 6 (6), 653-656.
11. Nodoushan, M. et al. (2012). The Survey of Correlation between Internet Addiction and General Health Status among the Students of Qom University of Medical Sciences. *Qom University of Medical Sciences Journal*, 2012;6(3).
12. Zheng et al. (2016). Internet use and its impact on individual physical health. *IEEE Access*, Volume 4, 2016. 5135-5142.