

## **Multiple Effects of Mobile Phone Usage: A Study on Urban Areas College Students in Bangladesh**

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### ***Abstract***

*There are many means of communication, the mobile phone is one of them. It plays a great role in the sector of communication. Bangladesh having a 160 million population, where the total number of Mobile Phone subscribers have reached 159.780 Million at the end of March 2019. The objectives were to see the socio-economic condition of the parents, understanding about multiple options of mobile phone, proper utilization of mobile phone and areas of practice by the college students. It was a descriptive cross-sectional study at three colleges of Dhaka city. There were 134 respondents; the collected data were analyzed by using SPSS (version 21). The major findings were that 94 percent of college students use mobile phone. There were 41 percent boys and 59 percent girls. Among the students- 16 years of age was 17.2 percent, 17 years of age 61.2 percent and 18 years of age 21.6 percent. The monthly average income of the family was a minimum BDT 5000 or 61 US Dollar and the population was 0.7 percent, and more than BDT 40,000 or USD 488 was 34.30 percent (1 US Dollar = 82 BDT). About 70 percent of mobiles were provided to the students by their parents. More than 64 percent of parents monitor their children's mobile phones. The monthly mobile phone expense of the students was within BDT 20 or 0.24 USD which is 9.5 percent (minimum) and more than Taka 400 or USD4.88 was 19.8 percent (maximum). The students visit Facebook 38.8 percent, watch cinema 29.5 percent, games 38 percent and listening song 71.3 percent. Due to the absence of a phone, when friends make fun, 14.7 percent student becomes angry and 20.7 percent become sorrow. 28.1 percent feel inferior and small, those who don't have a mobile. 14.7 percent of students talk at midnight. The physical problem for use of mobile phone are - Neck pain 8.7%, Headache 38.1%, Palpitation 3.2%, Neck pain associated headache 9.5. Fallen in love affairs 30.7 percent, anxiousness on hearing ringtone 37.9 percent. These are all related to the physical, mental, psychological and environmental problems. It is recommended*

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*that mobile phone use should be controlled and monitored more carefully by their guardians to reduce problems as identified by this study. Few aspects like Psychology, Education, social friendship, Facebook internet and few other aspects result indicate that psychological distress is related to maladaptive use of both the Internet and the mobile phone.*

**Keywords:** Mobile Phone Use, Urban Area, College Students, Multiple Effects.

## **Introduction**

The mobile phone is called a cell phone. It is a wireless device used as a handset. It helps the user to make a call, to receive any call, send and receive messages as well. It also helps to some other function like web browsing, playing videogames, video player and navigation. The mobile phone has become as the most important connecting device within the last 20 years. Increased use of mobile phone within few recent years by the plan of 'Digital Bangladesh Program' it has been increased many folds mainly among the adolescent and young adult. But it has also to be kept in mind that there are some harmful effects to the individual and college students as well [Jafarzadeh-Kenarsari, et al. (2018)]. It is portable in the hand and can communicate with anybody, anytime and anywhere in the world. It helps to lead a quality life (Park, W. K. (2005).

In Bangladesh, there are 160 million population and the total number of Mobile Phone subscribers has reached up to 159.780 Million at the end of March, 2019 [B T R C- Apr 2019]. Subscriber means the biometric verified subscribers/subscriptions who have any activity (voice, data, SMS etc.) at least once in the preceding 90 days. Total internet users are now reached at 90.1 million, according to the latest statistics of *Bangladesh Telecommunication Regulatory Commission* [ BTRC- 2019]. As many as 11.6 million *mobile phone users* subscribed to 4G internet faster data service in 2018 [BTRC January,2019]. Increased use of mobile phones within a few recent years under the plan of 'Digital Bangladesh Program,' it has been increased many folds and reached to root level at the hand of very common people like farmers, day laborers etc.

Many research works have recently been done on the mobile phone. The use has been seen among all, like children, young adolescents and adults, which helps to communicate with each other [Lemish, D., & Cohen, A. A. (2005)]. According to the BTRC report, Bangladesh is much ahead. Bangladesh is one of the leading countries in the world in the areas of mobile phone use, the rapid expansion of the mobile phone can be attributed to several matters. It increases the movement, lowers the subscription, costing and provides a lot of facilities in working places.

None of the sectors or society of Bangladesh is out of the use of mobile phones. Moreover, advanced technology is proceeding each year. The technology is advancing throughout the year and all over the world and the Bangladeshi mobile market is also ahead. It is true that all kinds of community in the world using and enjoying the use of mobile contribute to and share in the social and cultural sectors. The mobile phone and other wireless equipment have improved and have changed the living style, business sector, and relationship with each other which was not so much in the earlier period. The use of mobile phones has affected children and adolescents in many ways, to reduce them so many academic steps have been taken on them. [Katz and Aakus, 2002], The research works are focusing on the social implication of mobile phone use in different countries.

Mobile phone is a very powerful device to use which helps to move quickly, accomplishment of a job very quickly. It increases social bonding. It helps in transferring and caller ID is an important predictor [Leung, L., & Wei, R. (2000)]. Mobility is enhanced by mobile phones on the bus, car, train, shopping mol and restaurants with quick communication. Nowadays, it is an important media as mobile banking by which money can be transferred by T-cash and B-cash very quickly in Bangladesh. It is to predict the use and follow few factors like mobility, immediacy, and instrumentality which are found to be the strongest instrumental motives in predicting the use of cellular phones, followed by intrinsic factors such as affection and sociability, predictors for overall cellular phone use.

During the last few years, wireless communications can be considered as the fastest-growing segment of telecommunications. Mobile telephones have become an everyday accessory for hundreds of millions of people, and they are increasingly being used in the most developed and many developing countries in the world [Beaubrun, R., & Pierre, S. (2001)]. The worldwide expansion of mobile established the social network, relationship and easy communication of the college students [choi, S.M et al (2011)]. In the perspective of mobile use, many functional points are highlighted but there are harmful effects of radiation emitted from the mobile phone itself (Sandstrom et al., 2001) is usually not much focused, Due to the use of mobile phone, users sometimes complaint about the feeling of discomfort, headache and feelings of warm around the ear due to the use of digital devices. Electromagnetic radiation that emerged from mobile may provoke the rising temperature up to one degree leading to vascular stimulation in the eye and vestibular stimulation in-ear.[ Pau, H. W., et all (2005)].The wide use of cell phones in society especially in the younger group leading to addiction to a

mobile phone. They pass their prime time seeing Internet, Facebook, etc in social networking services [ Salehan, M., & Negahban, A. (2013)] The mobile has turned into a powerful device of communication within 10 years all over the world [Park, W. K. (2005)] and Bangladesh has also reached up to a considerable limit.

### **Aim**

This study aims to see the results, challenges and the multiple effects like mental, psychosocial, pathological internet use by the college students of urban areas and to identify the consequences and challenges of the application of this technology from the perspective of higher secondary students

### **Objective/ Research Question**

The main objective of this study is to see how the mob phone affecting or benefited to the adolescence? Co-design information and website to support adolescents and young adults with long-term illnesses in their transition to adult healthcare.

### **Literature Review**

The use of the mobile phone has been increased in adolescent college student and thereby internet addiction. It is a condition where the time of using mobile is increased. If due to any reason mobile phones or the internet do not act they feel anxious and depressive illness. When they see the internet and time of engagement increases gradually. They deny the problematic job [ Kandell, J. J. (1998)]. Use of the Internet in college campuses has been increased enormously in the recent few years, leading to pathological use, or Internet addiction, for some student psychological dependence on the Internet has taken place. Some radio frequency emits from mobile phones. Many people object to set up mobile phone base antenna nearer to residence due to some biological effect [Moulder, J. E et all 2005] , mobile phone use may increase risks of brain cancer[Kundi, M. (2008)]. If the children and adolescents are engaged with the internet on mobile there is a chance of addiction, physical, psycho-social and other behavioral problems like depression and anxiety. [Lam, L. T et al 2009] . The children and the adolescent those who have been affected by the physical, psychosocial and behavioral problems and suffering from cancer due to use of mobile phone, they have to be looked after and rendered, mental and medical support to them [Jing, W et all 2016] .

The young people who are suffering from long-term diseases they will have to treated properly. [Kenzie A Cameron et all 2016] Electromagnetic radiation comes out of mobile phone may increase temperature about one degree, which can stimulate the vessels of eye and vestibule of ear[ Pau, H. W., et al (2005)].The wide use of cell phones in

society especially in the younger group leading to addiction to the mobile phones. They pass their prime time seeing the Internet, Facebook, etc in social networking services [Salehan, M., & Negahban, A. (2013)]. The mobile has turned into a powerful device of communication within a few recent past years all over the world [Park, W. K. (2005)]. According to BTRC report, Bangladesh has also reached up to a considerable limit. Adolescents and young adults who are suffering from an illness should be treated as such. (Coyne, I et al 2016.) The patients who underwent transplantation surgery and not taking immune-suppressive drugs will have to be taken under consideration for treatment. [Killian, M. O. (2017)]. If mobile and internet programs are mal-adaptive in nature and there are any symptoms of mental psychological disorder there is a chance of emotional intelligence. It is the condition where he has the capability to find out and manage his personal emotion and other emotion too [Peter, P. C. (2010)]. It indicates psychological distress. [Beranuy, M., et al 2009]. The mobile phone is present in all places at the same time mobile phone is helping to communicate with the desired people [Park, W. K. (2005)].

Types of sleep, depressive illness and anxiety of adolescent depends on the duration of use of the mobile phone. [Kadir Demirci, MD et al]. The moderate use of mobile phones may cause an elevated mood and psychological happiness. A relationship may be seen between the use of the internet and the physical and psychological impact of the adolescent. Depression, sleep quality and anxiety has recently been increased among the student of age 16-20 years those who use mobile. [Demirci, K 2015] Due to more attachment with the Internet there are physical, psychosocial, behavioral problems among urban college students. The result of too much attachment with the Internet leading to addiction, depressive illness and social anxiety. The habit of watching electronic games by children and adolescents leading to changes in behavior and emotion [Lam, L. T et al (2009)]. The use of mobile phones by the students has a relationship with anxiety and many other physical and psychosocial effects. Due to the unlimited use of the Internet, there may be intolerance leading to emotional and psychosocial risk factors [Kandell, J. J. (1998)]. The mobile phone is a symbolical science of industrial arts of space the time reducer, customer seeking tools that can connect anybody. This technology used by the young group of people .it makes possible the children and adolescent to make free from prevailing social structure, parental guide and monitoring. But there is no way to predict that the present social structure has been outdated [Ito, M. (2005)]. Bangladeshi young generation uses mobile phones, but there is limitation in use at residence and outside. They show due respect to their parents and relatives. Increased use of the internet may increase anxiety, in female there is a chance of increased anxiety and sleeplessness. It will

help to find the behavioral condition. [Jenaro, C., et al (2007)] There is public concern about the possibility that mobile phones might cause cancer, especially brain tumors. Mobile phone use raises the risk of the main types of brain tumor glioma and meningioma [Swerdlow, A. J. et al 2011]. A number of studies revealed that there is a relationship between brain cancer due to the use of mobile phones (Ahlbom et al. 2009). There is evidence of road traffic accidents due to use of mobile phones while those individuals driven vehicles [Kundi, M. (2004)].

The mobile phone is not too much old technology rather its age is about three decades that is why long-term follow-up is thin too. Due to the absence of ionizing radiation, the mobile phone emits energy and soaked by the body tissue. The prevalence of cancer is less but Progressive exposure to radiation may provoke and may have an association with brain carcinoma. The distance of the set is also important. In the case of car if the antenna is kept outside and a phone set is kept inside for talking then the risk hazard of radiation is cut down [Frumkin, H., et al 2001]. Internet use may cause psychological, behavioral and health problems. Mobile phone with internet use may be the causes of anxiety, lowering self-confidence, detachment from social gathering, lack of confidence and shyness. [Jenaro, C. et al 2007)]. In adolescents, mobile internet may reduce academic performance due to late morning riser, loneliness, tiredness, and missing classes. [Kubey, R. W et al 2001).

Bullying characteristic in school or in college mainly in the higher secondary section is a common feature all over the world. Many students do not visit the cafeteria to get rid of public association. It can affect social, psychological, and behavioral patterns [Aluede, O., et al (2008)]. Now a day's cyberbullying is also affecting the student in the same way. Bullying is received in school and if it is continued at a higher secondary level it affects the students in educational life [Adams, F. D., et al (2011)]. It may lead to depressive illness. Bullying may be physical, verbal, social and electronic. Younger and adolescent Boys and girls both are the victims of cyberbullying (13.6%) but student girls are higher than those of male students. Afro-Americans are more victims of the circumstances [Wang, J et al (2009)]. Proper watching by the guardian can reduce the incidence of bullying. An increased number of friends may reduce cyberbullying, it has serious long-term negative effects on bullies victims [Smokowski, P. R. et al 2005]. About 15.8% of students become the victim of cyberbullying and it is more within non-hetero sexually youths. There is a depressive illness among them. In serious cases there is an incidence of suicidal attempts by bruising themselves, cutting different parts of the body and burning themselves [Schneider, S. K 2012]

## Conceptual Framework

Fig- 1

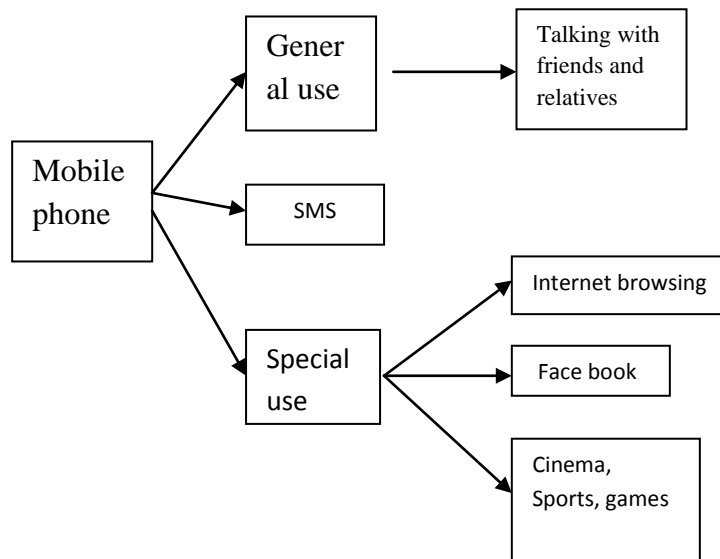
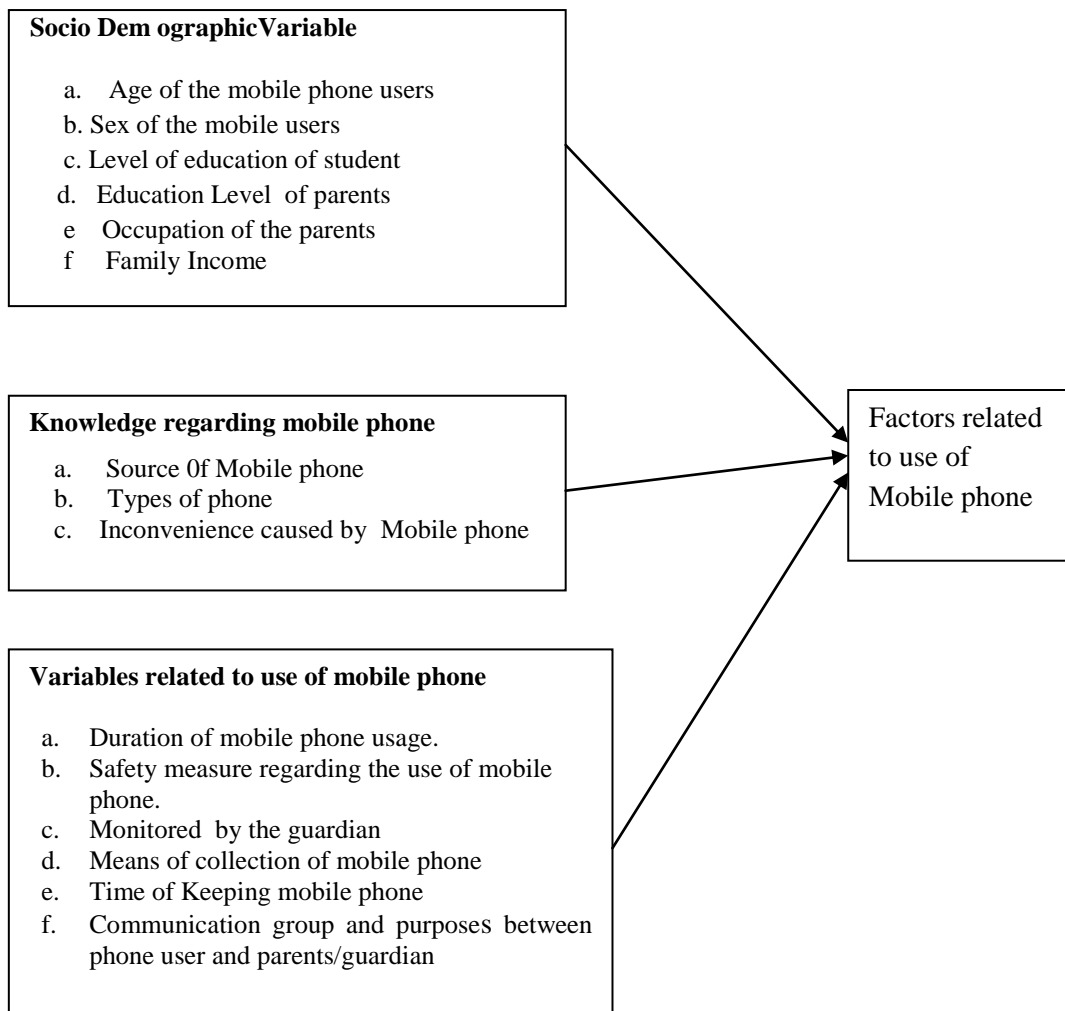


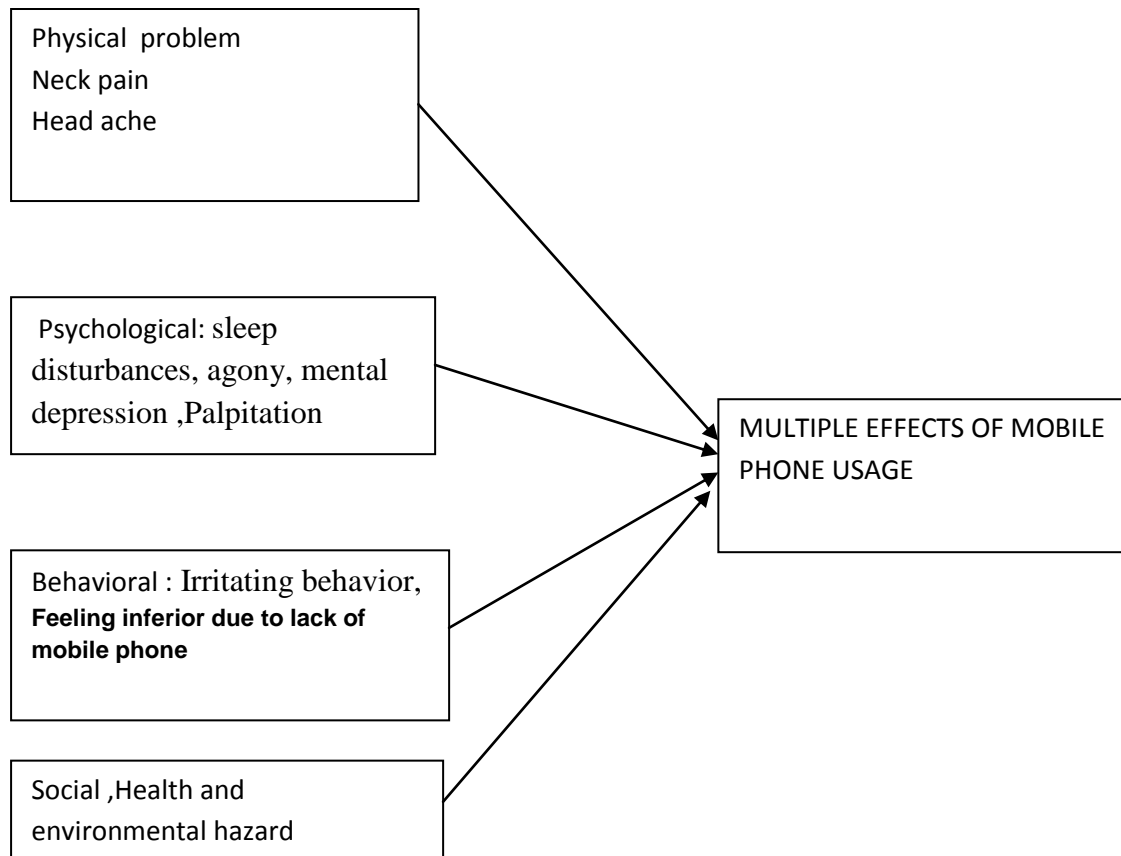
Fig-2: Independent Variables Dependent Variable



**Fig: 3**

**Independent Variables**

**Dependent Variable**



**Theoretical Framework /Conceptual Framework**

Mobile phone or cell phone is an electronic device which helps to communicate with friends, family and to any other person for trade and commerce in adult. But for students, it is used for text message, communication with friends for study, friendship and communication with relatives and internet for study and amusement.( Fig 1) The mobile phone is one kind of wireless which is based on Radio link and act as a communication network. It can be used for text messages, sending study materials by the students to each other through the internet, facebook to convey many social agenda. Sometimes it produces social, health and environmental hazard(Fig 3). All these can be reduced by taking the measure to some extent by the parents, college authority, social media and different mobile companies to produce less radiation emitting materials in the cell phone, and use of a mixture of less radiating materials. Factors of using mobile phone related to Socio-Demographic, Knowledge regarding mobile phone and practices related to the use of mobile phone (Fig-2)

**Methodology**

In this qualitative study, participants were 134 (One hundred thirty-four) students of from different colleges in Dhaka city of Bangladesh, who



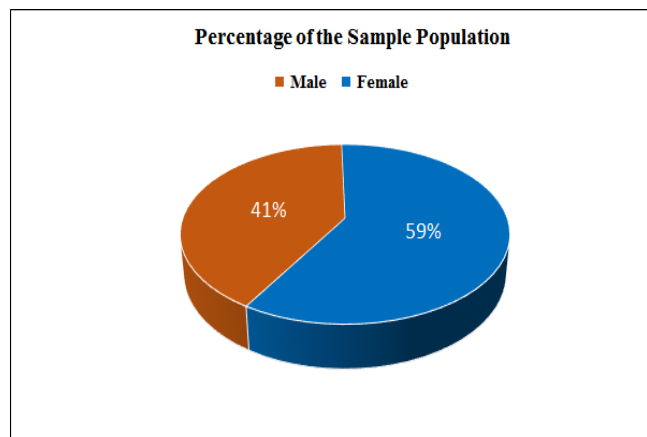
were selected purposefully. Data were collected using semi-structured questionnaire prepared by the researcher and interviewed in the light of the questionnaire. All interviews were continued till those were completed. Data analysis was done using SPSS version 21 analysis approach. Six participatory focus group discussion were done to identify needs and preferences for health and information procedure, to create a proper means of remedy.

**Materials and Methods**

The study was carried out with selected articles via online searches and reference lists (eg, google scholar). Reviewed the literature by the researcher for the target population, stated purpose, sample size, socio-demographic characteristics, and outcome of data analysis, their strengths and weaknesses were studied.

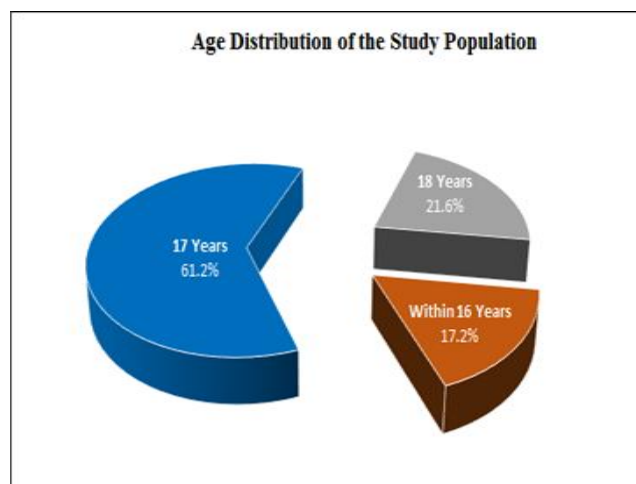
**Results**

**Pie chart 1:**



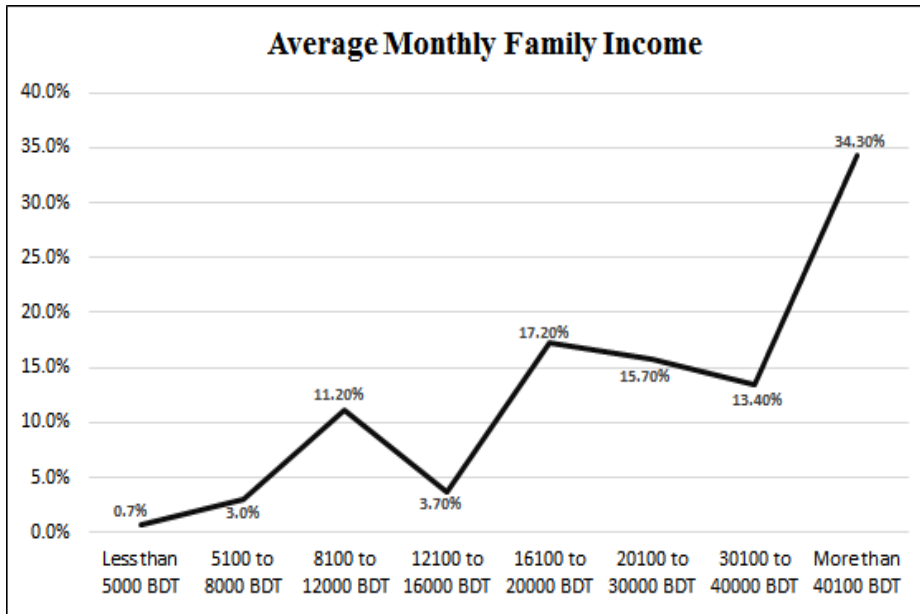
**Pie Chart 1.** Showing Male (boys) 41%, and Female 59% (Girls)

**Pie Chart 2**



**Pie Chart 2:** Showing Percentage of sample- 16 years of age was 21.6%, 17 years of age was 61.2% and 18 years of age was 21.6%.

**Graph 1:**



Above graph showing: Monthly average income of the family (1Dollar= BDT 82): Less than Taka 5000 or 61 US Dollar= 0.7%,5001 to 8000 BDT or 61- 98 USD =3.0% ,BDT 8100—12,000 or 99 USD-- 146= 11.20%, BDT 12100 – 16000 or USD 148— 195= 3.70%, BDT16100— 20,000 or USD 196 – 244= 17.30 %, BDT 20,100 – 30,000 or USD 245 – 366 = 15.70%, 30,100—40,000 or USD 367 – 488 = 13.40%, BDT >40,000 or >USD 488= 34.30%

**Table1:** Percentage of mobile user

| Use of Mobile Phone | Frequency (n) | Percentage (%) |
|---------------------|---------------|----------------|
| No                  | 8             | 6.0            |
| Yes                 | 126           | 94.0           |
| <b>Total</b>        | <b>134</b>    | <b>100.0</b>   |

In above table it shows that 94 % of the college students use mobile phone

**Table 2:** Monthly expense for mobile phone

| Monthly expense for mobile phone | Frequency | Percent |
|----------------------------------|-----------|---------|
| Below Taka 20                    | 13        | 9.5     |
| Below Taka50                     | 18        | 13,5    |
| below taka 100                   | 40        | 30.2    |
| belowTaka 200                    | 36        | 27.0    |
| Above Taka 400                   | 27        | 19.8    |
| Total                            | 134       | 100     |

In above table monthly expense of BDT/ USD (1 USD=BDT 82) shows: within Taka20 or 0.24 USD= 9.5 percent. Taka 50 or USD 0.625 = 13.5 percent. Taka 100 or USD 1.219=30.2 percent. Taka 200 or USD 2.439 = 27.0 percent. and more than Taka 400 or USD 4.878 = 19.8 percent.

**Table 3:** Source of mobile phone

**Way of Getting Phone**

|                          | <b>Frequency</b> | <b>Percent</b> |
|--------------------------|------------------|----------------|
| given by father          | 64               | 47.76          |
| given by mother          | 28               | 20.89          |
| given by brother         | 12               | 8.95           |
| given by sister          | 5                | 3.73           |
| saving from pocket money | 11               | 8.20           |
| by other                 | 14               | 10.47          |
| Total                    | 134              | 100            |
|                          |                  |                |

In above table it is seen that the mobile phone are supplied by: 47.76 percent father, 20.89 percent mother and rest of the 31.35 percent mobile is provided by brother, sister, from their own saving money (8.2 percent) and by other relatives.

**Table 4:** Years of using mobile phone

|                    | <b>Frequency</b> | <b>Percent</b> |
|--------------------|------------------|----------------|
| One year           | <b>51</b>        | <b>38.1</b>    |
| <b>Two years</b>   | <b>22</b>        | <b>16.5</b>    |
| <b>Three years</b> | <b>20</b>        | <b>15.1</b>    |
| <b>Four years</b>  | <b>18</b>        | <b>13.5</b>    |
| <b>Five years</b>  | <b>14</b>        | <b>10.3</b>    |
| <b>Six years</b>   | <b>9</b>         | <b>6.5</b>     |
|                    | <b>134</b>       | <b>100</b>     |

The above table shows that the duration of using mobile phone for one year was 38.1 percent, Two years 16.5 percent, 3 years 15.1 percent, for 4 years 13.5 percent, for5 years 10.3 percent and for six years 6.5 percent

**Table 5:** Causes of using phone

|  | <b>Frequency</b> | <b>Percent</b> |
|--|------------------|----------------|
| to contact with friends for class lesson | 46               | 34.4           |

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|                                  |     |      |
|----------------------------------|-----|------|
| to contact with relatives        | 25  | 18.8 |
| Others                           | 45  | 33.6 |
| to contact friends and Relatives | 18  | 13.3 |
| Total                            | 134 | 100  |

The above table shows that 34.4 percent of students use mobile to contact friends for class lesson, 18.8 percent to contact relatives, 13.3 percent to contact friends and Relatives, and 33.6 percent of students use mobile for other purposes.

**Table 6:** Phone being monitored or not

|        | Frequency | Percent |
|--------|-----------|---------|
| Father | 27        | 20      |
| Mother | 59        | 44.2    |
| Others | 34        | 25.8    |
| Both   | 7         | 5.0     |
| None   | 7         | 5.0     |
|        | 134       | 100     |

Phone monitored by: Father 20percent, Mother 44.2 percent, both father and mother 5 percent but 5 percent of students is not monitored at all.

Table 7: Duration of keeping mobile phone

| Time of keeping mobile phone | Frequency (n) | Percentage (%) |
|------------------------------|---------------|----------------|
| All time                     | 67            | 50.0           |
| Sometimes                    | 67            | 50.0           |
| <b>Total</b>                 | <b>134</b>    | <b>100.0</b>   |

The above table shows that 50 percent students keeping their mobile phone all the time.

**Table8:** Safety methods regarding mobile phone

|                         | Frequency (n) | Percentage (%) |
|-------------------------|---------------|----------------|
| Kept in hidden place    | 31            | 23             |
| Always move with mobile | 103           | 77             |
|                         |               |                |

**Table 9:** Watching Facebook

| No    | Frequency | Percent |  |
|-------|-----------|---------|--|
| Yes   | 52        | 38.8    |  |
| No    | 82        | 61.2    |  |
| Total | 134       | 100     |  |

The above table shows that Face book watching: 38.8 percent student view facebook and 61.2 does not.

**Table 10:** Enjoy games on mobile phone

|       | Frequency | percent |
|-------|-----------|---------|
| Yes   | 51        | 38      |
| No    | 83        | 62      |
| Total | 134       | 100     |

The above table shows that 62 percent students play games in mobile phone

**Table 11:** Watching cinema

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 94        | 70.5    |
| Yes   | 40        | 29.5    |
| Total | 134       | 100     |

The above table shows that 70.5 percent of students watch cinema on mobile phone

**Table 12:** Feel inferior/small to your friends if don't have mobile phone

|       | Frequency | Percent |
|-------|-----------|---------|
| NO    | 96        | 71.9    |
| Yes   | 38        | 28.1    |
| Total | 134       | 100     |

The above table shows that 28.1 percent feel small and inferior due to not having mobile phone

**Table 13:** Anxious or not when hear mobile ring tone

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 83        | 62.1    |
| Yes   | 51        | 37.9    |
| Total | 134       | 100     |

The above table shows that 37.9 percent shows their anxiety state when the ring tone rang from mobile phone

**Table 14:** Percentage of Listening Song

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 38        | 28.7    |
| Yes   | 96        | 71.3    |
| Total | 134       | 100     |

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The above table shows that **71.3 Percent student play song with their mobile phone**

**Table 15:** Percentage of Email use

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 105       | 78.3    |
| Yes   | 29        | 21.7    |
| Total | 134       | 100     |

The above table shows that 21.7 percent student use e-mail

**Table 16:** Talk to boy/girl at Midnight

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 114       | 85.3    |
| Yes   | 20        | 14.7    |
| Total | 134       | 100     |

The above table shows that 14.7 percent of boys and girls talk over mobile phone on midnight

**Table 17:** Number of time receiving SMS (Per Month)

| Per Month in number | Frequency | Percent |
|---------------------|-----------|---------|
| 0- 20               | 116       | 86.7    |
| 21-60               | 10        | 07.6    |
| 61-100              | 05        | 03.8    |
| More than 100       | 03        | 1.9     |
| Total               | 134       | 100     |

The above table shows that SMS received monthly upto 20=86.7 percent, 15 to 60 = 15.2 percent and more than 100 SMS= 1.9 percent

**Table 18:** Fallen in love over mobile phone conversation

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 93        | 69.3    |
| Yes   | 41        | 30.7    |
| Total | 134       | 100     |

The above table shows that about 31 percent of students fallen in love due to conversation over mobile

**Table 19:** When Do you like to talk

|      | Frequency | Percent |
|------|-----------|---------|
| Noon | 61        | 45.8    |

|         |     |      |
|---------|-----|------|
| Evening | 39  | 29.2 |
| Night   | 34  | 25   |
| Total   | 134 | 100  |

The above table shows that talking time of the students: Above table shows that 45.8 percent of students use mobile in the daytime, Evening 29.2 percent and at the night 25 percent

**Table 20:** Friends Make fun or not when you don't have mobile phone

|       | Frequency | Percent |
|-------|-----------|---------|
| No    | 91        | 67.8    |
| Yes   | 43        | 32.2    |
| Total | 134       | 100     |

Feel inferior or small to friends if s/he does not have phone: 67.8 percent do not bother but 32.2 percent feel small.

**Table 21:** Photography by mobile user

|       | Frequency | Percent |
|-------|-----------|---------|
| Yes   | 83        | 62      |
| No    | 51        | 38      |
| Total | 134       | 100     |

The above table shows that 62 percent of mobile users use to use mobile for photography

**Table 22:** Mental state when friends make fun due to absence of mobile phone

| Mental condition | Frequency | Percent |
|------------------|-----------|---------|
| Become angry     | 20        | 14.7    |
| Become Sorrow    | 28        | 20.7    |
| Don't care       | 86        | 64.6    |

The above table shows the mental state of the student due to the absence of phone. When friends make fun: 14.7 percent of students become angry, 20.7 percent become sorrow and the majority or 64.6 percent don't care.

**Table 23:** Physical Problem due to use of Mobile

|             | Frequency | Percent |
|-------------|-----------|---------|
| Neck pain   | 12        | 8.9     |
| Head ache   | 67        | 50.0    |
| Palpetation | 1         | 1.1     |

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|                              |     |      |
|------------------------------|-----|------|
| Both Neck Pain and Head ache | 13  | 10.0 |
| Others                       | 18  | 13.3 |
| No problem                   | 23  | 16.7 |
| Total                        | 134 | 100  |

The above table shows that the physical problem for use of mobile phone are: Neck pain 8.9%, Headache 50%, Palpitation 1.1%, Neck pain associated with headache 10 percent, No problem 16.7%

**Table 24:** Time of going to sleep

|              | Frequency | Percent |
|--------------|-----------|---------|
| Within 10 PM | 13        | 10.1    |
| Within 11 PM | 49        | 36.4    |
| Within 12 PM | 72        | 53.5    |
| Total        | 134       | 100.0   |

The above table shows that more than 53 percent of students go to sleep at midnight, but more than 46 percent of students go to sleep within 11 PM.

**Table 25:** Do the students wake up in early morning?

|       | Frequency | Percent |
|-------|-----------|---------|
| Yes   | 106       | 78.8    |
| No    | 28        | 21.2    |
| Total | 134       | 100     |

Above table shows that 79 percent student rises in the morning but 21 percent is late riser

### Key Findings/ Discussion:

In this study, 41 percent of boys and 59 percent of girls were participated [pie chart 1] , The age of them is within 16 years 17.2 percent, 17 years 61.2 and 18 years 21.6 percent.[pie chart 2] Among them 94 percent of the college students use mobile phones [Table 1].

The monthly average income of the family (1Dollar= BDT 82): Minimum monthly income Less than Taka 5000 or 61 US Dollar= 0.7%, and a maximum income of the family was USD 488= 34.30% [ Graph 1]Monthly minimum mobile phone expense of the students were within Taka20 or 0.24 USD and that was 9.5 percent and maximum mobile expense were more than Taka 400 or USD 4.88 and those were 19.8 percent [Table 2]. Bangladesh is a developing country and the parents can afford this expense.



About 69 percent mobile phones are supplied to the students by their parents. Rest 30 percent mobiles are provided by their brother, sister, from their own saving money (8.7 percent) and by other relatives [Table 3] It is seen that exploration of mobile phone has reached more than 38 percent within a year whereas it was about 7 percent only five years back [Table 4]. 34.9 percent college students keep their mobile phone to keep contact with their friends and 19.1 percent students to keep contact with relatives [Table 5] More than 60 percent students mobile phones are monitored mainly by their parents but 5 percent students are not monitored by anybody [Table 6], 50 percent students keep their mobile with them [Table 7]. 38.8 percent of students watch facebook [Table 9], Enjoy games 38 percent [Table 10], watch cinema 29.5 [Table 11], listen to song 71.3 percent [Table 14], attracted to the opposite sex or fallen in love affairs 30.7 percent [Table 18], 14.7 percent student talk at midnight [Table 16] leading to the late riser in the morning which affects their attention on the main study. Due to the use of mobile phone few physical problems are arises and those are Neck pain 8.7 percent, Headache 38.1 percent, Palpitation 3.2 percent, Neck pain associated headache 9.5 percent [Table 23]

Few points were exposed to the qualitative analysis. These were “physical, psychological problems, sleep disturbances, information security concerns, and progressive dependence, “ reduced academic fitness, reduced study time but increasing time for mobile use, wasting time, and “ engaged more time in mobile to see different options of mobile phone., unhealthy relationship with the opposite sex.

Physical aspect: Due to the use of mobile phones few physical problems like Neck pain, Headache Palpitation, Neck pain-associated with headache might be seen [Table 23]. In the long term use of mobile phone may be one of the causes of brain cancer.

Mental state : Due to the absence of phone, when friends make fun few percentage students become angry [Table 22], a few become sorrow and the majority don't care. Those who do not have their own mobile phone they feel inferior and small [Table 12]. Bullying somebody over mobile may also affect each other.

Social aspects: Few percent of students establish their love affairs talking over the telephone [Table-18]. It is not a problem in western countries but in the perspective of Asians especially in the Muslim majority countries like Bangladesh have a little bit of restriction from the family on it. Viewing cinema, listening to song watching cinema speaking the relation helps the students to keep up their mind and energy as there are fewer facilities for playing on the ground especially in Dhaka city. But those options should be seen on a limited scale.

Age, gender, and types of gender are related to the prediction of mobile use. A few percentages of people become panic and anxious if they are deprived of the set advantages of radio link communication. [De Bock, H. (1980)]. Addiction of mobile phone has been used to make under-stand that the uninterrupted or frequent use of radio-link. But drug addiction is a bit different and due to physical dependence in cases of some drugs. The newer concept may be that the condition where it is difficult to detach from the habit, which is more prevalent than in community samples of healthy peers [Akers, R.L. (1991)]. Psychological stress related to healthy and in distress individuals, many adolescent and young people can assess their mental and psychological state and report to health care for asking advice and medication [Palen, L., et al, E. (2001)]. Internet addiction in a mobile phone was assessed, information was also collected on demographics, health behaviors, and perception of the individual respondent [AZLam, L. T. et al 2009]

Bullying to school and college student may abstain themselves from attending the public association which can change their behavior. [Aluede, O., et al (2008)]. Cyberbullying may also affect the student in their academic carrier [Adams, F. D., et al (2011)]. It may be one of the causes of depressive illness. Both the boys and girls may be the victim but the girl students are higher [Wang, J et al (2009)]. Parents' vigilance and increased number of good friends may reduce bullying behavior. [Smokowski, P. R. et al 2005]. If sometimes it becomes serious the victim may attempt suicidal attempts by scratching, cutting some parts of the body by knife or blade, firing on the body by flaming of fired stick or other means [Schneider, S. K. et al 2012]

### **Conclusion**

Based on the students' experiences, appropriate cultural planning is necessary with approaches such as mass media education, early childhood education, and education before entering the technologies with the aim of properly the usage of these technologies. Few other aspects like Psychology, social and their friendship, facebook internet and a few other newer technologies to be taken under consideration. Results indicate that psychological distress is related to maladaptive use of both the Internet and the mobile phone

To make a success in health care, sufficient informative materials and readiness is required. Adolescents are reluctant to get the information and to dispatch the information. The modern concept of technology may enhance the adolescent to work on health care. Day to day developed technology to be practiced and to allow the adolescent for participation.

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