

PREVELENCE OF SMARTPHONE ADDICTION AMONG GRADUATE STUDENTS

Dissertation Submitted by
SHAILAJA KOMAR

Under the Guidance of

Natesh Babu, Ph.D.
Rajesh S.K., PH.D.

TOWARDS THE PARTIAL FULFILLMENT OF THE MASTER'S DEGREE

Master of Science in Yoga (M.Sc. Yoga)

October 2017



To
SWAMI VIVEKANANDA YOGA ANUSANDHANA SAMSTHANA
(Declared as Deemed University under Section 3 of the UGC Act, 1956)
#19 Eknath Bhawan, Gavipuram Circle, K G Nagar
BENGALURU - 560 019
INDIA

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CERTIFICATE

This is to certify that Shailaja Komar is submitting this literature research **“PREVELENCE OF SMARTPHONE ADDICTION AMONG GRADUATE STUDENTS”** in partial fulfilment of the requirements of Master of Science in Yoga with effect from January 2016 to December 2017 by Swami Vivekananda Yoga Anusandhana Samstahana (SVYASA) under the division of Life Sciences and this is a record of work carried out by him in this university.

Natesh Babu, Ph.D.
Research Guide

Rajesh S.K., Ph.D.
Research Co - Guide

DECLARATION

I hereby declare that the work presented in this dissertation is done by me under the guidance of **Natesh Babu, Ph.D.** and **Rajesh S.K., Ph.D.**

I also declare that this work entitled, “**PREVELENCE OF SMARTPHONE ADDICTION AMONG GRADUATE STUDENTS**” has not been previously formed as the basis of any degree, diploma, membership or similar titles.

Place- Prashanti Kutiram
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Date:

Shailaja Komar

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Shailaja Komar
Reg No. 40116014

**STANDARD INTERNATIONAL TRANSLITERATION CODE USED TO
TRANSLITERATE SANSKRIT WORDS**

a	=	अ	ña	=	ढ	pa	=	प
ā	=	आ	ca	=	च	pha	=	फ
i	=	इ	cha	=	छ	ba	=	ब
ī	=	ई	ja	=	ज	bha	=	भ
u	=	उ	jha	=	झ	ma	=	म
ū	=	ऊ	ñ	=	ञ	ya	=	य
ṛ	=	ऋ	ṭa	=	ट	ra	=	र
ṝ	=	ॠ	ṭha	=	ठ	la	=	ल
e	=	ए	ḍa	=	ड	va	=	व
ai	=	ऐ	ḍha	=	ढ	śa	=	श
o	=	ओ	ṇa	=	ण	ṣa	=	ष
au	=	औ	ta	=	त	sa	=	स
m̐	=	अं	tha	=	थ	ha	=	ह
ḥ	=	अः	da	=	द	kṣa	=	क्ष
ka	=	क	dha	=	ध	tra	=	त्र
kha	=	ख	na	=	न	jña	=	ज्ञ
ga	=	ग						
gha	=	घ						

ABBREVIATION

APAC: - Asia Pacific

BCD: - Blogging/ Contributing to websites/ Discussion boards

BET: - Booking Events/ Trips

Bha Gi: - Bhagwad Gita

COM: - Communication

Conv: - Convenience

DHS: - Depression Happiness Scale

EC: - E-Commerce

EM: - Entertainment/ media consumption

ET: - Education and Training

FS: - Financial Service

IAYT: - Integrated approach of yoga therapy

IJOY: - International Journal of Yoga

Inf: - Information

MP: - Mobile Phone

NA: - Nonattachment

NAS: - Nonattachment Scale

NMP: - No Mobile Phobia Nomophobia

NMPS: - Nomophobia Scale

OI: - Obtaining information

Pa Yo Su: - Patanjali Yoga Sutra

PC: - Personal Computer

PYS: - Patanjali Yoga Sutra

SA: - Smart Phone Addiction

SA: - Social Awareness

SAS: - Smartphone Addiction Scale

SB: - Shopping/ Buying items

SD: - Standard Deviation

SDHS: - Short Depression Happiness Scale

SI: - Social Intelligence

SIP: - Social Information Processing

SIS: - Social Intelligence Scale

SN: - Social Networking

SS: - Social Skills

TSIS: - Tromso Social Intelligence Scale

WHO: - World Health Organisation

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ABSTRACT

Background: One of the most widely growing addiction in all developed countries in graduate students is smartphone addiction. This study correlate Smartphone addiction ratio with social intelligence, nonattachment, short depression happiness, and nomophobia ratio in Indian graduate students.

Aim: To evaluate the relationship between yoga related concept and smartphone addiction.

To study the relationship between social intelligence related concept and smart phone addiction

Methods: A sample size of 511 students age 18-25 years was taken from 3 colleges in south Bangalore. It was an in person survey. Students were given 15 to 20 minutes to fill out the questionnaire in their respective classrooms. Questionnaire was collected after they were filled by the students.

Setting: Study was conducted on 511 graduate students, in Bangalore, on September 2017.

Intervention: The study is cross sectional survey study to assess prevalence of Smartphone Addiction correlate with Social Intelligence, Nonattachment, Depression, and Nomophobia. No intervention methods were used.

Result: The correlation showed smartphone addiction is positively correlated with Social Media Addiction and Game Addiction. Smartphone addiction is negatively correlated with social intelligence, Social Skill, Social Awareness and Happiness.

Conclusion: Social Intelligence is negatively correlated with Smart Phone Addiction and Game Addiction and Social Media Addiction and positively correlated with Happiness. Smartphone addiction is positively correlated with Game

addiction and social media addiction, and negatively with social intelligence, social awareness, social skill and social information.

Keywords: addiction, Student, smartphone, nomophobia, nonattachment, depression, happiness, smartphone addiction, graduate.

CHAPTER 1

INTRODUCTION

1. INTRODUCTION

1.1 Smartphone: A smart phone is an electronic device; it is multifunctional cell phone that provides voice communication and text-messaging capabilities and data processing as well as enhanced wireless connectivity. ⁱ(Zheng & Ni, 2006)

A Smartphone is a term for distinguishing mobile phones with advanced features from basic feature phones. The term "Smartphone" first appeared in 1997, when Ericsson described its GS 88 "Penelope" concept as a smartphone. This term was basically introduced in the market for a new class of mobile phones that provides integrated services from communication, computing and mobile sectors such as voice communication, messaging, personal information management applications and wireless communication capability. Modern Smartphone's currently include all the features of a laptop, including web browsing, Wi-Fi, and 3rd-party apps etc., ⁱⁱ (Davey & Davey 2014)

Smartphones usually have touch screens, mobile Internet access via Wi-Fi or cellular networks, capability for installation of smartphone applications, and other functions such as media players, digital cameras, and GPS-based navigation ⁱⁱⁱ(Haug et al., 2015)

Smartphone combines both computer and mobile phone features into one device having web browsers that can be connected through mobile internet, and WiFi internet network. It is a source of education and entertainment through the usage of numerous applications. Smartphone has become more popular to all generations because of its social networking applications such as Twitter, Facebook that connects people under one umbrella. ^{iv} (Arefin, et at, 2017)

1.2 Growth of mobile phone: Mobiles have become very essential part of our everyday life. Their current development is the outcome of various generations. The cellular concept was introduced in the 1G technology which made the large scale mobile wireless communication possible. Mobile wireless industry has started its technology creation, revolution and evolution since early 1970s. In the past few decades, mobile wireless technologies have experience 4 or 5 generations of technology revolution and evolution, namely from 0G to 5G. Since then mobile communications have undergone considerable changes and experienced massive growth. ^v(Bhalla, 2010)

1.3 Impact of using Smartphone:

Smartphone has impacted almost all walk of human life. The prominent areas, where impacts of Smartphone are obvious include business, education, health and social life. Mobile technology has drastically changed the cultural norms and behavior of individuals. The impacts are both at the positive side and also at the negative side.

Positive Impact:

Use of the Internet has become a part of life of every student and a mean to search for the information as and when it is needed. The Smartphone with the capability of always connected makes it much easier for the students to avail this type of education facility and makes the Smartphone a perfect fit device for distance learning. ^{vi} (Sarwar & Soomro, 2013)

Globalization and technology related developments are 'change drivers' that have significantly re-shaped the landscape of the higher education. ^{vii} (Manoj Kumar, 2011)

Negative Impact: Along with their fantastic facilities, Smartphone's enables students to text, cooperate on social networking sites, check e-mails, play online games, and even watch TV channels. This is one of the sources of distraction. Children expose to the habit of jumping from one option to another. This habit is harmful for the brain development. Addiction to Smartphone is major impact on social life. Surveys show that Smartphone addiction is interfering with our night's sleep. ^{viii}(Sarwar & Soomro, 2013)

The extensive and unrestricted usage of mobile communications, mainly by children and adolescents, is raising alarm about the latent effects of electromagnetic radiations on the human organs, particularly the brain. ^{ix} (Khalil et al., 2012).

1.4 Why this study: "Put down the cellphone and get to work, Putdown the cellphone and go to bed!" This is what the bosses' plea their workers and parents plea their children. Many people are glued to their phones and having trouble concentrating in school or at work. These people are not getting enough sleep and suffer the consequences of bad health in the workplace. This is why various medical studies examining the problem of smartphone addiction. (NY Post, 2017)^x

The study found that smartphone addiction tendency is influenced by the psychosocial factors such as depression and aggression. Therefore, a proper guideline is needed to promote the beneficial use of smartphone by college students for their social health. Also multi-dimensional intervention programs for smartphone users should be developed. ^{xi} (Kim et al, 2015)

1.5 Addiction: Addiction is characterized by the inability to control the consumption of product or control certain behaviors, and the continuation of

the behavior despite knowledge of its adverse effects.^{xii} (Semaille, 2009) The condition of being abnormally dependent on some habit^{xiii}(Dictionary, 2017). The term addiction can be used to describe an obsession, infatuation, craving, or excessive psychological dependence on some habits. Such as alcoholism, workaholic, compulsive over eating, gambling, computer addiction, smartphone addiction etc.^{xiv}(Rashmi, 2010).

Addiction is a major health problem facing many countries. There are a number of substances and activities that a person can be addicted to such as Alcohol addiction, Smoking, Drug addiction, Gambling, Food addiction, Video games, Internet addiction, sex addiction, shopping, workaholic, smartphone addiction, etc.^{xv}(Rashmi, 2010).

1.6 Types of addictions:

There are many substances and activities that a person can be addicted to, some are as follows:

- **Alcohol Addiction:** Prolonged or excessive use of alcohol lead to a problem with addiction.. The term alcoholism was first used in 1849 by a physician Magnus Huss to describe the systematic adverse effects of alcohol (Rashmi, 2010).
- **Smoking:** Smoking is highly-addictive substance is the reason why smoking is such a difficult habit to give up. Smoking cause many deadly diseases. It is injurious to health.
- **Drugs:** Drug addiction includes both illegal substances and legal drugs. The problem is the same, whether the drug of choice is easily available by prescription or not.
- **Gambling:** Many people enjoy participating in a game of chance in hope of

winning some money or a prize. When it becomes a compulsive activity that person has become addicted to gambling.

- **Food:** Food addiction is unable to control his or her urge to eat during certain times and uses food as a way to deal with feelings of sadness, depression, or anxiety.
- **Video Games:** A video game addict plays video games to the extent that this activity intrudes on his or her life.
- **Internet:** If someone feels anxious or upset when they are not online, it may be a sign that they have developed an Internet addiction. Due to online gaming and social media many people are highly addicted to internet.
- **Sex:** Having an addiction to sex is likely engaging in risky sexual behavior to feel their compulsion.
- **Shopping:** This excessive shopping may lead to financial problems, as well as relationship issues with the compulsive shopper's spouse or partner.
- **Work:** When work becomes an obsession, it is a problem. If you get to the point where you can't stop working and thinking about work when you are supposed to be off the job, it may be a sign that your dedication has turned into an addiction.

^{xvi}(Tracy, 2016)

1.7 Smartphone addiction:

Smartphone users habitually engage in browsing web, checking e-mail, pocking social networking sites, sending text messages with touch and giant screen facility. However, the excessive usage of smartphone causes adverse effect on users who gradually become addicted to it. It has been observed that smartphone addiction is more severe than the addiction to mobile phones, computers, and even internet. ^{xvii} (Arefin et .al , 2017)

Smartphone addiction is defined as a behavior addiction, loss of control by excessive immersion and obsessions to smartphone use , consequent daily disorder by nervousness and anxiety , and inclination toward virtual world that feels more enjoyable with smartphone than with friends ^{xviii} (Kim, M. O. et al, 2015)

University students with cumulative GPAs of distinction or higher are also within the same levels of smartphone addiction. Undergraduate students who were at a high risk of smartphone addiction were less likely to achieve cumulative GPAs of distinction or higher. ^{xix} (Hawi & Samaha, 2016)

Nearly 57 percent of Indians cannot live without their smartphones, which makes them the most addicted group of respondents globally, finds a new survey.

One in three Indians would give up their TV for a week before their smartphone, revealed the findings from the survey conducted by San Francisco-based B2X Care Solutions, the leading provider of customer care for smartphones worldwide ^{xx} (B2X , 2014)

Without a smartphone life is missing something, so many tasks can be completed on phone, no need to be on a long que, no need to go outside from house, no need to reschedule our work, banking, buying ticket, shopping, all available on one click. There are many applications which is making the use of smartphone more important in daily use. Booking a cab, train, cinema ticket, flight, a table in restaurant and many more all can be done with one click. So many applications make the use of smartphone very necessary in our life.

There are many health issues which is related with smartphone addiction such as anxiety, depression, nomophobia.

1.8 Prevalence of Smartphone Addiction:

Indians are getting too much addicted to smartphones. Many Indians said that they can't live without their smartphones. As if this was not enough, it was discovered that 98% Indians sleep with their smartphones and 83% keep it on their body or within reach throughout the day. ^{xxi}(B2X, 2014)

.Deloitte survey confirms "Indians addicted to smartphones from our study, it is evident that smartphone usage has disrupted many common daily activities and this is here to stay," said Santosh Anoo, senior director at Deloitte Touche Tohmatsu India LLP, highlighting the addiction among consumers. ^{xxii}(Deloitte, 2015)

Deloitte analyzed the mobile phone usage habits of over 2,000 Indian consumers as part of a global survey of 49,000 respondents across 30 countries. As of June, 86 per cent of those surveyed owned smartphones, which is 12 per cent higher than in 2013, the survey found. ^{xxiii}(Deloitte, 2015)

Eighty-four percent people worldwide are addicted to smartphones. With wider and increasing number of mobile apps and Web sites, it's time to leverage students' addiction to Smartphone's and teach them information literacy in a mobile setting. 81% of smartphone users have their mobile phone switched on all of the time even when they are in bed or in bathrooms. ^{xxiv} (Davey & Davey, 2014)

Indians teens love their Smartphone. Nokia research reveals that an average person checks the phone every 6.30 min in a 16 h waking cycle. Of the 20-25 people, at least 10% face smartphone and computer-related injuries in the 20-45 age group. These are usually upwardly mobile patients who are constantly looking at their phone in a bent-forward position. They complain of their backs stiffening up, developing a stoop and text neck besides the tendons in their thumbs hurting when they text.

Tendon injuries, carpal tunnel syndrome, radiation related problems, inattention blindness and computer vision syndrome are common ailments that stem from unrelenting mobile usage ^{xxv} (Davey & Davey, 2014)

According to Canalis an investment firm of Singapore and research firm Gartner by 2017, there will be 15.6% smartphone users and annual rate of growth of smartphone users in India would be around 129%, even more than that of China (109^{xxvi}) (Davey & Davey, 2014)

1.9 Criteria for Smartphone Addiction:

25 signs that you are completely Addicted to your smartphone ^{xxvii} (Parker, 2015).

1. You have your phone in your hand 24/7.
2. Not a day goes by that you are without your phone.
3. Your phone battery does not even last a day.
4. When you are running out of battery, you run for your charger.
5. You worry about losing your smartphone.
6. You take your phone to the bathroom.
7. You are on your phone in social settings.
8. You check your phone constantly, in most cases without any reason.
9. The first thing you do after getting up in the morning, and the last thing you do before going to sleep at night, is check your phone.
10. Even while getting ready to sleep you feel the need to check your phone.
11. Vacation time is more like an extended phone time for you.
12. You obsessively check for emails, texts, and missed calls.
13. You start feeling your phone vibrate just to find out later that it was a false alarm.

14. You carry it in your hand instead of your bag or pocket.
15. You turn to your phone whenever things get awkward.
16. You have to reply to messages even while you are getting a massage and trying to destress.
17. You are currently reading this article on your phone.
18. Dressing up for an important occasion can wait, but your phone can't.
19. You're on your phone even while watching TV or eating food.
20. You procrastinate on important work with your phone.
21. You have a panic attack if you leave your phone at home.
22. You do not mind responding to messages or checking your phone while on a date.
23. For you, your phone is one or the most important experiences that you treasure.
24. You get lost in your phone without realizing how much time you have wasted.
25. You will be caught using your phone during exam or an important meeting.

^{xxviii}(Parker, 2015)

CHAPTER 2

REVIEW OF THE ANCIENT LITEATURE

2 REVIEW OF THE ANCIENT LITERATURE

2.1 Aim

To unearth the concept of Addiction from the light of the ancient lore.

2.2 Objectives

- i. To enumerate the Addiction, Attachment, according to, Patanjali Yoga Sutra
- ii. To enlist the characteristics and consequences of Addiction from the insight of Vedas, Bhagavadgita, Ayurveda
- iii. To enlist relevant information regarding Non-addiction from, Patanjali Yoga Sutra

2.3 Methodology

In the initial stages, searches were carried out for the keyword related to addiction, nonattachment, desire and depression from various scriptural texts. Vedas, Rig Veda, Ayurveda and Patanjali Yoga Sutra are taken.

2.4 TEXT-WISE PRESENTATION (SLOKA, TRANSLITERATION, TRANSLATION AND EXPLANATION)

2.5 Addiction, Attachment

2.5.1 Addiction according to Patanjali:

The following shloka is taken from samadipada of Patanjali Yoga Sutras. One of the obstacle of Yoga is Avirati means failure to withdraw or worldliness.

When one is not able to withdraw or stop what he is doing that becomes an addiction.

व्यधिस्त्यानसंशयप्रमादालस्याविरतिभ्रान्तिदर्शना

लब्धभूमिकत्वानवस्थितत्वानिचित्तविक्षेपास्तेन्तरायाः ॥प।यो।सु।१।३०॥

vyadhistyānasamśayapramādālasyāvīratibhrāntidarśanā

labdhabhumikatvānavasthitatvānicittavikṣepāsteantarāyāḥ |palyo|su|1|30||

There are nine obstacles which distract the mind. They appear only in conjunction with the mental processes described previously, and without the obstacles, the latter do not arise.

Failure to withdraw(Avirati) is a hankering caused by past addiction to objects. Instability(Anavasthitatvānam) is when a state has been attained but the mind is not established in it. It is an obstacle because in true attainment of samādhi the mind would be established there.

These distractions are explained as the blemishes, adversaries and obstacles of yoga.

^{xxix} (Saraswati, 1976)

2.5.2 Addiction according to Ayurveda

24th chapter of Susruta Samhita deals with the symptoms and treatment for alcoholism. It is called Madatyaya Chikitsa Adhyaya. Ayurveda has mentioned the Alcoholism & Alcohol withdrawal under the heading of Madatyaya & Pranapakarma respectively.

निर्भक्तमेकाथथ एव मध्यं निर्षव्यमाणं मनुर्जन् नित्यम् ।

उत्पादयेत् कष्टतमान् विकारानापादयेच्चापि शरिरभेदम् ॥ सु । सम ।११-७-१४ ।

nirbhaktamekāthath eva madhyam nirṣavyamāṇam manurjan nityam|

utpādayet kaṣṭatamān vikārānāpādayeccāpi śarirabhedam|| su sam|11-7-14|

Wine consumed by the person without food and in solitude (without the company of others) daily produces many disorders of the body which are very difficult to cure and which even lead to death.

^{xxx} (Murthy, 2014)

2.6 Effect of Addiction, Attachment

2.6.1 Effect of Addiction according to Rig Veda

HYMN OF THE GAMBLER (X.34)

In Rg Veda volume X of the 34th chapter explains story of a gambler how an addiction can ruin his life, his home by his inability to resist the attraction of dice. It is the lament of a gambler who, unable to resist the fascination of the dice, deplores the ruin he has brought on himself and his family. ^{xxxi}(The Path, 1893)

One of the most famous hymns in the Rig veda is this lively and vivid lament of the gambler depicts the sad lot of a man addicted to dicing but unsuccessful at it. This hapless speaker describes the intoxication and grips him when he is playing or even contemplating play and that leaves him hapless to resist Vs 5-9, as well as the toll this compulsion takes on his personal life and the self pity on him vs 2-4, 10=11. At the end of the hymn the gambler vows to renounce to play Vs 12 and God Savitar restores him to his former position Vs 13. The final verse 14 is the gambler address to the dice urging them to leave him alone and find another victim.. . The dice consisted of the nuts of a large tree called vibhidaka which is still utilized for this purpose in India. ^{xxxii}(Ralph & Griffith, 1896)

Shloka No. 3

द्वेष्टि श्वश्रुर अप जाया रुणद्धि न नाथितो विन्दते मर्डितारम् ।

आश्वस्येव जरतो वस्त्रस्य नाहं विन्दामि कितवस्य भोगम् ॥१०-३४-३ ॥

dveṣṭi śvaśrur apa jāyā ruṇaddhi na nāthito vindate marḍitāram |
āśvasyeva jarato vastrasya nāhaṁ vindāmi kitavasya bhogam ||10-34-3||

My mother-in-law hates me, my wife drives me away; the man in distress finds none to pity him. I find no more use in a gambler than in an aged horse that is for sale.

apa jāyā ruṇaddhi means – turns him away when he asks for money to gamble with. The gambler speaks of himself.

Shloka No. 7

अक्षास इदङ्कशि नो नितोदि नो निकृत्वानस्तपनास्तापयिष्णवः

कुमारदैष्णा जयतः पुनर्हणो मध्वा संप्रृक्ताः कितवस्य बर्हणा ॥१०-३४-७ ॥

akṣāsa idaṅkaśino nitodino nikṛtvānastapanāstāpayiṣṇavaḥ
kumāradaīṣṇā jayataḥ punarhaṇo madhvā samprṛktāḥ kitavasya barhaṇā
||10-34-7||

The dice are hooked, piercing, deceitful, burning and causing to burn; presenting gifts like boys, striking back victors, sweetened with honey by magic power over the gambler.

Tapayisnavah: causing the gambler to pain by others by his losses.

kumara-desnas: giving gifts and then taking them back like children

Shloka No. 10

जाया तप्यते कितवस्य हीना माता पुत्रस्य चरतः क्व स्वित् ।

ऋणावा बिभ्यद्वनमिच्छमानोऽन्येषां अस्तमुप नक्तमेति ॥१०-३४-१० ॥

jāyā tapyate kitavasya hīnā mātā putrasya carataḥ kka svit |

ṛṇāvā bibhyadvanamicchamāno'nyeṣām astamupa naktameti ||10-34-10||For

saken The wife of the gambler is grieved, the mother (too) of the son that wanders who knows where. Indeed fearing, desiring money he approaches at night the house of others.

Shloka No. 11

स्त्रियं द्रष्टाय कितवं ततपान्येषां जायां सुकृतं च योनिम् ।

पूर्वाह्ने अश्वान्युयुजे हि बभ्रून्त्सो अग्रेरन्ते वृषलः पपाद ॥ १०-३४-११ ॥

striyaṃ draṣṭāya kitavaṃ tatapānyeṣām jāyāṃ sukṛtaṃ ca yonim |

purvāhne aśvānyuyuje hi babhruntso agrerante vṛṣalaḥ papāda ||10-34-11||

It pains the gambler when he sees a woman, the wife of others and their well-ordered home. Since he yokes the brown horse in the morning, he falls down (in the evening) near the fire , a begger.

Striyam means a women who is the wife of others and their comfortable homes, he is reminded of unhappiness of his ownwife and the bareness of his own home. Asvan: the brown dice are here figuratively called horses which he yokes; that is he begins a long spell of gambling with them Papada: he consequently falls down exhausted and over come on the ground beside the fire in the evening having lost everything.

Shloka No. 13

अक्षैर्मा दिव्यः कृषिमित्कृषस्व वित्ते रमस्व बहु मन्यमानः

तत्र गावः कितव तत्र जाया तन्मे वि चष्टे सवितायमर्यः । ॥१०-३४-१३॥

akṣairmā divyaḥ kṛṣimitkṛṣasva vitte ramasva bahu manyamānaḥ
tatra gāvaḥ kitava tatra jāyā tanme vi caṣṭe savitāyamaryaḥ ॥10-34-13॥

This stanza is spoken by the gambler who in quotes advises of “Savitar”.
“ Play not with dice; ply thy tillage ; rejoice in thy property, thinking much of it; there are thy cattle, O gambler , there thy wife” this Savitr here, the noble reveals to me.

Shloka No. 14

मित्रं कृणुध्वं खलु मृळता नो मा नो घोरेण चरताभि ध्रष्णु ।

नि वो नु मन्युर्विशतामरातिरन्यो बभ्रूणां प्रसितौ न्वस्तु । ॥१०-३४-१४॥

mitraṁ kṛṇudhvaṁ khalu mṛḷatā no mā nou ghoreṇa caratābhi dhraṣṇu |
ni vo nu manyurviśatāmarātiranyo babhruṇāṁ prasitau nvastu ॥10-34-14॥

Pray make friendship, be gracious to us. Do not forcibly bewitch us with magic power. Let your wrath, your enmity now come to rest.

The gambler stops gambling with the advise or the help from the God Savitar.

^{xxxiii} (Macdonell, 1917)

2.6.2 Effect of Addiction according to Bhagavadgita

On the emergence of emotions and attachment Krishna tells Arjuna the following:

ध्यायतो विषयान् पुंसः संगस्तेषूपजायते ।
संगात्सञ्जायते कामः कामात्क्रोधोऽभिजायते ॥

भ गी १२ ।६२ ॥

क्रोधाद् भवति सम्मोहः सम्मोहात्स्मृतिविभ्रमः ।
स्मृतिभ्रंशाद् बुद्धिनाशोः बुद्धिनाशात्प्रणश्यति ।

भ गी १२ ।६३ ॥

dhyāyato viṣayān puṁsah saṅgasteṣūpajāyate |
saṅgātsañjāyate kāmaḥ kāmātkrodho'bhijāyate | |

bha gī |2|62||

krodhād bhavati sammohaḥ sammohātsmṛtīvibhramaḥ |
smṛtibhramśād buddhināśoḥ buddhināśātpṛaṇaśyati |

“Brooding on the objects of desires, man develops attachment to them, from attachment comes desire; from desire anger sprouts forth. From anger proceeds delusion, from the delusion confused memory; from confused memory the ruin of reason; due to the ruin reason he perishes”

When you go on thinking about the particular object , you go on repeating that again and again, that repeated thinking brings attachment *saṅgasteṣūpajāyate* and that attachment what does it do? You get desire. When an object is attractive then you want it. All because of the inner Kama a desire. Responding to that you get your desire fulfilled then it turns itself into greed.

This strong desire turns itself into greed and untill you succeed in getting it, the desire goes on looping in your thoughts. Finally you get frustrated, resulting into anger. As a result of anger you lose your memory. Once memory goes, your discrimination power is gone, your analytical faculty vanishes, no different from animal behaviour.

2.6.3 Effect of Addiction according to Ayurveda

विछिन्नमद्यः सहसा योऽतिमद्यं निषेवते ।

ध्वंसको विक्षयश्चैव रोगस्तस्योपजायते ॥ च । सम । १९९ ॥

vichinnamadyaḥ sahasā yoo'timadyaṁ niṣevate |

dhvaṁsako vikṣayaśchāiva rogastasyopajāyate || ca | sam | vol iv | ch-xxiv | 199 ||

If a person who has stopped drinking alcohol, suddenly takes recourse to drinking alcohol, in excess, he suffers from two diseases, dhvaṁsako and vikṣaya. Since such a person is already emaciated because of his earlier drinking habit, these two diseases appearing in him are very difficult to cure.

^{xxxiv}(Sharma & Dash, 2004)

2.7 How to get out of Addiction and attachment

2.7.1 Non-attachment according to Maharshi Patanjali

Necessity of Abhyasa and Vairagya

अभ्यासवैराग्याभ्यां तन्निरोधः ॥प ।यो ।सु ।१ ।१२ ॥

abhyāsavairāgyābhyām tannirodhaḥ |pa|yo|su|1|12||

In this sutra, patanjali describes two methods for stopping the flow of the chitta vrittis. They are abhyasa and vairagya(Nonattachment). Abhyasa means repeated and persistent practice. Vairagya is a very controversial word. From time to time, from country to country and from brain to brain, it has had different meaning. We may say that it is a mental condition of non-attachment, or detachment, which is freedom from raga and dwesha, attraction and repulsion. When the mind becomes free of these, that state is called vairagya. In India, vairagya traditionally means an order of sannyasa.

Patanjali has may say, is the attitude of liking for any object of our choice. On the other hand, dwesha is an attitude of the mind which involves dislike for an object. Freedom from these two is called vairagya ^{xxxv}(Saraswati, 1976).

CHAPTER 3

LITERATURE

REVIEW

3. REVIEW OF SCIENTIFIC LITERATURE

In this chapter, an attempt is made to review all the work done earlier in the field of prevalence of mobile phone dependency among College Students relevant subject.

Sl. No.	Author/ Journal Ref./year/ Volume	Title	Sample	Result	Conclusion
1.	Kim, M. O., Kim, H., Kim, K., Ju, S., Choi, J., & Yu, M. (2015). <i>Indian Journal of Science and Technology</i> , 8(25).	Smartphone addiction:(Focused depression, aggression and impulsion) among college students	353	In this study, we conducted a survey to examine the relationship among Smartphone addiction tendency, depression, aggression and impulsion in college students. In this study, the smartphone addiction was more severe in men than in women with statistical significance. This result is in opposition with the study by Hwang, Yoo	This study found that smartphone addiction tendency is influenced by the psychosocial factors such as depression and aggression. Therefore, a proper guideline is needed to promote the beneficial use of smartphone by college students for their social health. Also multi-dimensional intervention programs for smartphone users should be developed.
2.	Davey, S., & Davey, A. (2014). <i>International journal of preventive medicine</i> , 5(12), 1500.	Assessment of Smartphone Addiction in Indian Adolescents: A Mixed Method Study by	1304	Smartphone usage behaviors' e.g. duration of usage and use of mobile phones for accessing Internet are found to be the main risks which can increase likelihood of hazards resulting from mobile phone use. Excessive smartphone use by Indian teens may even damage interpersonal skills of adolescents.	Increase in the use of smartphones in societies, has raised concern about social and psychological effects of excessive use of smartphone's especially among Indian adolescents. Smartphone's have made mobile connectivity so accessible that today's Indian generations are abusing their

		Systematic-review and Meta-analysis Approach			Smartphone. Smartphone abuse to addiction has become more serious since adolescents can download and run numerous applications with smartphone even without Internet connection.
3.	Kibona, L., & Mgya, G. (2015). <i>Journal of Multidisciplinary Engineering Science and Technology</i> , 2(4), 777-784.	Smartphones' Effects on Academic Performance of Higher Learning Students.	100	the impact of smartphone on the academic performance of higher learning students, in which the results has revealed that the smartphone bring negative results or progression on students' performance academically. So there is a need to evaluate and understand better the use of smartphones for higher learning students	to conclude, there is negative impact of smartphone usage on higher learning students in Tanzania
4.	Ahn, S. Y., & Kim, Y. J. (2015). <i>Indian Journal of Science and Technology</i> , 8(35).	The Influence of Smart phone Use and Stress on Quality of Sleep among Nursing Students.	738	The average age of subjects was 21.06, and there were more women (650, 89.9%) than men. Smart phone use and quality of sleep were significantly correlated, where higher the smartphone use, the lower was the quality of sleep ($r = .30$, $p = .000$). Similarly, stress and quality of sleep exhibited a significant correlation, where the higher the stress,	The findings of this study that, among nursing students, smartphone use and stress are significantly related ($r = .40$, $p = .000$), and the two variables can explain 21.1% of sleep quality seem to the remarkable fact in respect to finding a way to improve sleep quality of them. Based on these findings, we can find ways to improve sleep quality

				the lower was the quality of sleep ($r = .44$, $p = .000$). To identify the factors influencing quality of sleep in nursing students, a simple regression analysis was performed	of nursing students. That is, intervention in their smartphone use can be a useful strategy to reduce their stress
5.	Pavithra, M. B., Madhukumar, S., & Mahadeva, M. (2015). <i>National Journal of Community Medicine</i> , 6(3), 340-344.	A study on nomophobia-mobile phone dependence, among students of a medical college in Bangalore.	200	The study population of 200 students comprised of 47.5% females and 52.5% males. Majority (74%) of the students spent Rupees 300-500 per month on mobile recharge. About 23% students felt they lose concentration and become stressed when they do not have their mobile around, 79(39.5%) students were Nomopobic in this study and another 27% were at risk of developing Nomophobia	The result of our study is indicative of increasing prevalence of Nomophobia among younger generation. Further research and multi-centric studies are required to investigate more in depth the psychological aspects and solutions for nomophobia.
6.	Nikhita, C. S., Jadhav, P. R., & Ajinkya, S. A. (2015). <i>Journal of clinical and diagnostic research: JCDR</i> , 9(11), VC06.	Prevalence of Mobile Phone Dependence in Secondary School Adolescents	415	Mobile Phone Dependence was found in 31.33% of sample students. It was significantly associated with gender ($p=0.003$, $OR=1.91$, $CI: 1.23-2.99$), family type ($p=0.0012$), type of mobile phone used ($p<0.001$, $OR=2.6$, $CI: 1.63-4.35$), average time per day spent using mobile phone ($p<0.001$) and years of mobile phone usage ($p =0.004$, $OR=2.4$, $CI: 1.31-4.55$).	Mobile Phone Dependence has been found to be an emerging public health problem. There is need to recognize and identify early the growing trends and negative consequences of inappropriate mobile phone use in young users so as to generate awareness, and plan educational and treatment interventions, if need be, so as to prevent a major public health

					concern.
7.	Mok, J. Y., Choi, S. W., Kim, D. J., Choi, J. S., Lee, J., Ahn, H., ... & Song, W. Y. (2014). <i>Neuropsychiatric disease and treatment</i> , 10, 817.	Latent class analysis on internet and smartphone addiction in college students	448	Classifications of the subjects into subgroups based on internet and smartphone addiction were performed separately for each sex. Each sex showed clear patterns with the three-class model based on likelihood level of internet and smartphone addiction ($P < 0.001$). A common trend for psychosocial trait factors was found for both sexes: anxiety levels and neurotic personality traits increased with addiction severity levels (all $P < 0.001$). However, Lie dimension was inversely related to the addiction severity levels (all $P < 0.01$).	Through the latent classification process, this study identified three distinct internet and smartphone user groups in each sex. Moreover, psychosocial traits that differed in terms of addiction severity levels were also examined. It is expected that these results should aid the understanding of traits of internet and smartphone addiction and facilitate further study in this field
8.	Chiu, S. I. (2014). <i>Computers in Human Behavior</i> , 34, 49-57.	The relationship between life stress and smartphone addiction on	387	The structural equation modeling (SEM) path analysis yielded the following results: (1) Academic stress had negative predictive power for social and learning self-efficacies, and interpersonal relationship stress had negative predictive power for social self-efficacy. (2) Social self-efficacy had positive predictive power	This study established a model for analyzing the mediating effect that learning self-efficacy and social self-efficacy have on the relationship between university students' perceived life stress and smartphone addiction.

		taiwanese university student: A mediation model of learning self-Efficacy and social self-Efficacy		for smartphone addiction. (3) Family and emotional stresses had positive predictive power for smartphone addiction.	
9.	Kwon, M., Kim, D. J., Cho, H., & Yang, S. (2013). <i>PloS one</i> , 8(12), e83558.	The Smartphone Addiction Scale: Development and Validation of a Short Version for Adolescents	540	The 10 final questions were selected using content validity. The internal consistency and concurrent validity of SAS were verified with a Cronbach's alpha of 0.911. The SAS-SV was significantly correlated with the SAS, SAPS and KS-scale. The SAS-SV scores of gender ($p<.001$) and self-evaluation of smartphone addiction ($p<.001$) showed significant difference. The ROC analysis results showed an area under a curve (AUC) value of 0.963(0.888–1.000), a cut-off value of 31, sensitivity	The SAS-SV showed good reliability and validity for the assessment of smartphone addiction. The smartphone addiction scale short version, which was developed and validated in this study, could be used efficiently for the evaluation of smartphone addiction in community and research areas.

				value of 0.867 and specificity value of 0.893 in boys while an AUC value of 0.947(0.887–1.000), a cut-off value of 33, sensitivity value of 0.875, and a specificity value of 0.886 in girls.	
10	Alosaimi, F. D., Alyahya, H., Alshahwan, H., Al Mahyijari, N., & Shaik, S. A. (2016). <i>Saudi medical journal</i> , 37(6), 675.	Smartphone addiction among university students in Riyadh, Saudi Arabia	2367	Out of 2367 study subjects, 27.2% stated that they spent more than 8 hours per day using their smartphones. Seventy-five percent used at least 4 applications per day, primarily for social networking and watching news. As a consequence of using the smartphones, at least 43% had decrease sleeping hours, and experienced a lack of energy the next day, 30% had a more unhealthy lifestyle (ate more fast food, gained weight, and exercised less), and 25% reported that their academic achievement been adversely affected.	University students in Saudi Arabia are at risk of addiction to smartphones; a phenomenon that is associated with negative effects on sleep, levels of energy, eating habits, weight, exercise, and academic performance.
11	Bhardwaj, M., & Ashok, M. S. J. (2015). <i>Int J Indian Psychol</i> , 2, 27-34.	Mobile Phone Addiction and Loneliness among Teenagers	150	The purpose of the study was to measure the mobile phone addiction and loneliness among teenagers. Here t-test statistic was applied to check the significant difference in mobile phone addiction and loneliness among teenagers.	<ol style="list-style-type: none"> 1) There is a high level of mobile phone addiction was found among teenagers. 2) There is no gender difference found in terms of mobile phone addiction. 3) There is a high level of loneliness was found among teenagers. 4) There is no gender difference found

					in terms of loneliness. 5) There is a significant correlation found between the mobile phone addiction and loneliness among college students.
12	Aljomaa, S. S., Qudah, M. F. A., Albursan, I. S., Bakhiet, S. F., & Abduljabbar, A. S. (2016). <i>Computers in Human Behavior</i> , 61, 155-164.	Smartphone addiction among university students in the light of some variables	416	Results revealed that addiction percentage among participants was 48%. The order of smartphone addiction indices were as follows: overuse of smartphone, the technological dimension, the psychological-social dimension, preoccupation with smartphones, and the health dimension. Significant gender differences were found in the degree of addiction on the whole questionnaire and all of its dimensions with the exception of the technological dimension in favor of males. Significant differences by social status were found in favor of the unmarried. Bachelor degree students were found to have the highest degree of addiction	Significant differences by hours of daily use were also detected in favor of participants using the smartphone for more than 4 h a day. As to the monthly income dimension, significant differences were found on the health dimension in favor of participants with lower monthly income
13	Goswami, V., & Singh, D. R. (2016). <i>Int J</i>	Impact of mobile phone addiction on			On the basis of this review paper we have understand that adolescent's is more inclined towards using mobile

	<i>Home Sci, 2, 69-74.</i>	adolescent's life: A literature review			phones for activities other than communication than older generation because in adolescence stage, people are more susceptible to changing fashion trends and style, building them more Tech savvy which creates certain behavioral disorders.
14	Bhise, A. T., Ghatule, A. A., & Ghatule, A. P. (2014). <i>Indian Journal of Research in Management, Business and Social Sciences, 2(1), 17-21.</i>	Study of Mobile Addiction among Students w.r.t. Gender and Education	672	Present study concentrates on mobile addiction among students and the behavioral aspects of mobile addiction. Study also checks whether mobile addiction really exists among the students by using 10 item scale. It also reveals whether there is any relationship between Gender and mobile addiction.	As per this study it seen that more than 75% students are addicted to mobile. The addiction is like using mobile 24 X 7 and feeling uncomfortable while not using mobiles. Some percentage of feeling anxiety is also noted. Mobile addiction is seen to be independent on gender whereas it is depending on education.
15	Deshpande, A., & Deshpande, S. (2017). <i>Indian Journal of Health & Wellbeing, 8(8).</i>	A study of cell phone dependency among college students.	400	The study examined factors like gender, educational qualification, family type, living arrangement and other factors pertaining to duration of years using cell phones, availability of wi-fi, and subscription plan. A total of 400 students from different colleges in Mumbai, Navi-Mumbai, and Thane jurisdiction were	Results revealed that gender and duration of years using cell phone were statistically significant in predicting cell phone dependency. Other factors were not statistically impact cell phone dependency.

				recruited. Clustered Sampling and Snowball Sampling were used for data collection. Mobile Phone Problem Use Scale (MPPUS; Bianchi & Phillips, 2005) was used to measure the cell phone dependency among college students.	
16	Pundir, P., Andrews, T., Binu, V. S., & Kamath, R. (2016). <i>International Journal Of Community Medicine And Public Health</i> , 3(10), 2841-2849.	Association of problematic mobile phone use with psychological distress and self-esteem among college students in South India: a cross-sectional study	1108	Psychological distress was present among 5.8% and lower self-esteem using was present among 13.2% of the participants. The mean score of GHQ among problematic mobile phone users was 10.14 (± 4.87) whereas the score among Normal users was 7.85 (± 3.42). A significant cross-sectional association was found in between problematic mobile phone use and psychological distress, lower self-esteem, gender, smartphone use, multiple chatting applications, committed relationship status, relationship with mother and frequency of mobile phone use.	Conclusions: Health education is required for increasing awareness about PMU among the college students. Further research should be undertaken and factors related to PMU (Problematic mobile phones use) may be considered for intervention.

17	Khezhie, P., & Srivastava, A. (2016). <i>Int. J. of Multidisciplinary and Current research</i> , 4.	Mobile Phone Addiction among College Students	60	The result is not significant and there is no gender difference between male and female. In terms of mobile addiction, the level of addiction in girls show [Mean=95.23] and boys [Mean=88.33]	It can be concluded that, due to the advance technology mobile addiction has a large effect on the other areas of their life like inter-personal relationship as most of the people prefer to stay alone, and don't mingle with peers or family members.
18	Kanmani, A., Bhavani, U., & Maragatham, R. S. (2017). <i>The International Journal of Indian Psychology</i> , 4(2), 5-15.	NOMOPHOBIA – An Insight into Its Psychological Aspects in India	1500	Results show that the anxiety of 'not being able to communicate' with family and friends are higher than the nervousness of losing one's online identity. This shows that the extensive usage of Smartphone is for a genuine purpose of communication and not to maintain a perceived virtual world. Yet, though minimal, there are about 20% people who agreed that arguments have arisen with others because of their Smartphone use, that they interrupt whatever work they do when contacted on Smartphone and that they have been unable to reduce their usage. These are indicators to the fact that we are slowly walking towards a digitally dependent future.	It is true that Nomophobia is prevalent in the Indian society. But the level of Nomophobia is presently not that threatening to such an extent where people should be recommended for a digital detox. It is found to gradually increase in the student population with texting as the major use. Majority of males are found to fall under mild Nomophobia category while most females fall under moderate Nomophobia category.

19	Venkatesh, E., Jemal, M. Y. A., & Samani, A. S. (2017). <i>International Journal of Adolescent Medicine and Health.</i>	Smart phone usage and addiction among dental students in Saudi Arabia: a cross sectional study	205	Smart phone addiction was seen in 136 (71.9%) of the 189 students. The findings from our study revealed that high stress levels, low physical activity, higher body mass index (BMI), longer duration of smart phone usage, higher frequency of usage, shorter time period until first smart phone use in the morning and social networking sites (SNS) were associated significantly with the smart phone addiction.	The current research gives the information about the extent of smart phone over usage and addiction among the dental students in Saudi Arabia with indication of the predictors of addiction and the need for further research in the area with comprehensible interpretation to spread the awareness of the smart phone addiction
20	Yahyazadeh, S., Fallahi-Khoshknab, M., Norouzi, K., & Dalvandi, A. (2017). <i>Advances in Nursing & Midwifery</i> , 26(94), 1-10.	The prevalence of smart phone addiction among students in medical sciences universities in Tehran 2016	150	The mean smart phone addiction among students was 12.77 ± 32.94 . 9.3% of students were addicted to the smart phone addiction. Between the hours of use of smart phones and Internet access and there is a single smart phone addiction ($p < 0.05$).	Smartphone addiction among students with prevalence was nearly ten percent. There is access to the Internet and the increased use of smart phones is associated with the disorder. The use and how to use smart phones in educational environments and health should be controlled.

21	Deshpande, A., & Verma, V. (2014, May). In <i>2014 ASIAN CONGRESS OF APPLIED PSYCHOLOGY (ACAP 2014) CONFERENCE PROCEEDINGS</i> (p. 386).	IMPACT OF MOBILE DEPENDENCY ON ASPECTS OF SOCIAL ISOLATION AMONG COLLEGE STUDENTS	100	<p>Initially, a Correlation Analysis was conducted to find the relationship shared by Mobile Dependency, Shyness, Loneliness and Depression. Shyness showed significant positive association with Loneliness ($r = 0.22$; $p < 0.05$) and a significant negative association with Depression ($r = - 0.21$; $p < 0.05$). Loneliness was also found to be positively associated with Mobile Dependency ($r = 0.37$; $p < 0.01$).</p> <p>The findings show that Excessive mobile use could predict loneliness and depression, but not shyness. The researchers also found that lower reported levels of shyness are a significant predictor for depression</p>	There have been fears that the technology that lets us reach the globe at one click may on the other hand be leading people to social isolation. This study has demonstrated that mobile dependency shares significant and predictive relationships with loneliness and depression, but not with shyness. Shyness on the other hand is negatively associated with depression, so that shy people are less likely to report depressive symptoms, even among those who use their mobile phones extensively. Thus, it seems that there is some association between mobile use on the one hand and social isolation and vulnerability to mental illness on the other.
22	Ikeda, K., & Nakamura, K. (2014). <i>Environmental health and preventive medicine</i> , 19(3), 187-193.	Association between mobile phone use and depressed mood in Japanese adolescents: a cross-sectional	2785	Among the respondents, mean mobile phone use per week was 24 (median 18) h. Long-duration mobile phone use was associated with female students, no participation in sports club activities, early mobile phone use, and fewer hours spent sleeping (all $P < 0.001$). Overall associations between hours of mobile	Increased duration of mobile phone use is associated with unfavorable psychological mood, in particular, a depressed mood. Decreasing mobile phone use may help maintain appropriate mental health in very long-duration users.

		study		phone use and total scores were significant for “Depressed mood” (P for trend = 0.005), “Tension and excitement” (P for trend <0.001), and “Fatigue” (P for trend <0.001). Total scores for “Depressed mood,” “Tension and excitement,” and “Fatigue” of the fourth quartile (≥ 33 h/week) of mobile phone use were significantly higher than for other quartiles (all $P < 0.05$).	
23	Haug, S., Castro, R. P., Kwon, M., Filler, A., Kowatsch, T., & Schaub, M. P. (2015). <i>Journal of behavioral addictions</i> , 4(4), 299-307.	Smartphone use and smartphone addiction among young people in Switzerland	1519	Smartphone addiction occurred in 256 (16.9%) of the 1,519 students. Longer duration of smartphone use on a typical day, a shorter time period until first smartphone use in the morning, and reporting that social networking was the most personally relevant smartphone function were associated with smartphone addiction. Smartphone addiction was more prevalent in younger adolescents (15–16 years) compared with young adults (19 years and older), students with both parents born outside Switzerland, persons reporting lower physical activity, and those reporting higher stress. Alcohol and tobacco consumption were unrelated to	The study provides the first insights into smartphone use, smartphone addiction, and predictors of smartphone addiction in young people from a European country, which should be extended in further studies.

				smartphone addiction.	
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CHAPTER 4

AIMS AND OBJECTIVES

4. AIMS AND OBJECTIVES

4.1 AIMS: Aim of the study is to evaluate the relationship between Social Intelligence related concept and smartphone addiction.

4.2 OBJECTIVES:

- To evaluate the relationship between smartphone addiction and social intelligence.
- To evaluate the relationship between smartphone addiction and social information, social skill.
- To evaluate the relationship between smartphone addiction and social media and game addiction.
- To evaluate the relationship between smartphone addiction and happiness.

4.3 HYPOTHESIS:

- High Smartphone addiction (SA) may be associated with lower level of Social Intelligence(SI).
- High Smartphone addiction(SA) may be associated with higher level of Game Addiction(GA)
- High Smartphone addiction (SA) may be associated with lower level of Happiness.
- High Smartphone addiction(SA) may be associated with higher level of Social Media Addiction.

4.4 DEFINITIONS OF KEY TERMS:

4.4.1 SMARTPHONE ADDICTION: when someone is abnormally dependent on habit of using smartphone, when there is low battery, no internet connection, then craving for use of smartphone, then it is smartphone addiction.

Smartphone addiction, sometimes colloquially known as “nomophobia” (fear of being without a mobile phone), is often fueled by an Internet overuse problem or Internet addiction disorder. Smartphone addiction can encompass a variety of impulse-control problems, including: virtual relationships (Addiction to social networking, dating apps, texting, and messaging), online compulsions (such as gaming, gambling, stock trading, online shopping, Information overload (Compulsive web surfing, watching videos, playing games)

^{xxxvi} (Smith et al., 2017)

Heavy phone use can often be symptomatic of other underlying problems—such as stress, anxiety, depression, or loneliness. Spending a lot of time connected to your phone only becomes a problem when it absorbs so much of your time it causes you to neglect your face-to-face relationships, your work, school, hobbies, or other important things in your life. ^{xxxvii}(Smith, et al., 2017)

4.4.2 SOCIAL INTELLIGENCE:

Social intelligence, “which is frequently defined as “ability to deal with people” In his classic formulation: "By social intelligence is meant the ability

to understand and manage men and women, boys and girls -- to act wisely in human relations" Similarly, Moss and Hunt (1927) defined social intelligence as the "ability to get along with others. Vernon (1933), provided the most wide-ranging definition of social intelligence as the person's "ability to get along with people in general, social technique or ease in society, knowledge of social matters, susceptibility to stimuli from other members of a group, as well as insight into the temporary moods or underlying personality traits of strangers". (Daniel Goleman,2006)

"social intelligence is just general intelligence applied to social situations"^{xxxviii} (Kihlstrom & Cantor, 2000).

4.4.3 **NOMOPHOBIA:** Nomophobia is the fear of being out of mobile phone contact-and it's the plague of our 24/7 age. ^{xxxix}(Evening Standard, 2008)

The term was coined in 2008 in a pilot survey conducted by the United Kingdom Post Office. Nomophobia is an abbreviation for “no-mobile-phone phobia” and can be understood as a social phenomenon brought about by the dependence on mobile phones to communicate. YouGov, a UK research organization, was commissioned by the Post Office to analyze the level of anxiety experienced by mobile phone users when their devices were not with them or no longer functional. ^{xl} (Bahl & DeJuliis , 2015)

Nomophobia is considered a modern age phobia introduced to our lives as a byproduct of the interaction between people and mobile information and communication technologies, especially smartphones. ^{xli} (Yildirim,& Correia, 2015)

4.4.4 NONATTACHMENT: Nonattachment is defined as a flexible, balanced way of relating to one's experiences without clinging to or suppressing them. As one might expect, nonattachment is positively related to mindfulness but empirically distinguishable from it ^{xliii}(B K Sahdra, Shaver, & Brown, 2010). A deep or spiritual peace of mind can be achieved by practicing a type of inner simplicity known as non-attachment ^{xliii}(B K Sahdra, Shaver, & Brown, 2010). It allows a person to let go of all sorts of worldly concerns. Non-attachment simplifies the inner life by removing attachments - those thoughts and desires that cause stress and clutter in the mind ^{xliv}(B K Sahdra, Shaver, & Brown, 2010).

This study examined the health consequences of an indigenous concept "Anāsakti" which means non-attachment. "Anāsakti" was based on the characteristics of a man of steady wisdom "the sthitaprajña", described in the Bhagvad Gītā. It was hypothesized that those high on "Anāsakti" would experience less distress and exhibit fewer symptoms of strain when faced with stressful life events. People with non-attachment were less distressed and exhibited fewer symptoms of ill health. Non-attachment was also found to be the most significant predictor of strain symptoms. ^{xlv} (Pande & Naidu, 1992)

4.4.5 DEPRESSION: Depression is a normal helpful reaction to stressfully demanding situations and is one of the several emotions that we experience in our lives in response to situations. Depression adversely affects the work and mental health when it occurs too often and lasts too long. Depression becomes

a disease when it affects our daily routine for months and disturbs the quality of life when it becomes mandatory to seek medical help.

Depression is a common mental disorder. This can happen for many reasons. Different people act differently while depressed. The symptoms include low mood, loss of interest or pleasure, feeling of guilt, hopeless, helpless, worthless, empty, disturbed sleep, disturbed appetite, low energy and poor concentration ^{xlvi}(Nagrathna & Nagendra, 2014).

The number of people suffering from anxiety and depression is on the increase and has become a common problem of modern progressive affluent society ^{xlvii}(Nagrathna & Nagendra, 2014).

The primary clinical symptoms are said to be sad, despairing mood, decrease of mental productivity, retardation or agitation in motor behavior. The secondary symptoms are said to include somatic preoccupation, feeling of de-personalization and suicidal ruminations. Sleep disturbances, anorexia and weight loss are also associated with depressive states.^{xlviii}(Lorr et al., 1967)

Depression is ranked by WHO as the single largest contributor to global disability Depression is also the major contributor to suicide deaths, which number close to 800 000 per year. ^{xlix} (World Health Organization, 2017). The total number of people living with depression in the world is 322 million. Nearly half of these people live in the South-East Asia Region and Western Pacific Region, reflecting the relatively larger populations of those two Regions (which include India and China, for example) (World Health Organization, 2017). Depression also occurs in children and adolescents below the age of 15 years, but at a lower level than older age groups ¹ (World Health Organization, 2017).

CHAPTER 5

METHODOLOGY

5. METHODOLOGY

5.1 SUBJECTS:

A total of 511 Graduate students (287 males and 224 females) participated in the study. They were all from Bangalore. All subjects were randomly selected from 3 different colleges and different sections of the college. For all participants, informed consent was obtained.

5.2 Inclusion Criteria:

- The subjects age ranges from 18 to 28years.
- Both male and female.
- College students who are willing in participating in this survey

5.3 Exclusion Criteria:

- The college students who is not willing to participate.
- The college students who are recently started using smartphone less than a month
- The college students who do not use or own smartphone

5.4 Ethical Consideration:

The current research had been approved by the higher authority of the organizations. All subjects also had been informed about the trial of the current research and an informed consent has been obtained from each subject.

5.5 Design:

Cross sectional design.

5.6 ASSESSMENTS TOOL:

1, who invented, 2, definition, 3, no. of items, 4, how many domain /sub scale 5, defines factor in one line, 6, Likert scale/ type of scale 7 higher score and lower score result like if higher score then more happy and lower score then depressed 8, cronback alpha.

5.6.1 Smartphone Addiction Scale(SAS):

Smartphone addiction scale (SAS) is a scale for smartphone addiction. SAS is a scale short version of previous scale recommended by Polit & Beck was conducted by 7 experts. The objective of this scale was explained to the experts, namely, 3 psychiatrists (M.D.), 2 nurses with doctorate degree, and psychologists with doctorate degree. SAS is a scale for smartphone addiction that consisted of 6 factors and 10 items with a six-point Likert scale (1: “strongly disagree” and 6: “strongly agree”) based on self-reporting. The six factors were daily-life disturbance, positive anticipation, withdrawal, cyberspace-oriented relationship, overuse, and tolerance. During its development stages, the internal-consistency test result (Cronbach’s alpha) was 0.967. In this study, the internal- consistency test result (Cronbach’s alpha) of SAS was 0.966. ^{li}(Kwon et al., 2013)

5.6.2 Social Intelligence Scale(SIS): The Tromso Social Intelligence Scale developed by Silvera et al. (2001) in order to reveal social intelligence level, the Tromso Social Intelligence Scale (TSIS) is a self-report instrument including 21 items. The TSIS measures intelligence on the base of three different subscales: ^{liii} (Silvera et al., 2001)

(i) Social Information Processing (SIP): This subscale measures the ability of understanding verbal or nonverbal messages regarding human relations, empathizing and reading hidden messages as well as explicit messages. *Sample Item:* “I usually understand what people are trying to do without feeling the need for their explanations.” **(ii) Social Skills (SS):** This subscale measures the basic communication skills such as active listening, acting boldly, establishing, maintaining, and breaking up a relationship. *Sample Item:* “I am good at becoming acquainted with people and being involved in new social circles.” **(iii) Social Awareness (SA):** This subscale measures the ability of active behaving in accordance with the situation, place, and time. *Sample Item:* “I usually break others’ heart

without being aware.” Each of the subscales comprises of 7 items. A 7-point Likert-type scale form was prepared for the items included in the scale. The minimum and maximum scores in the items are 1 and 7 respectively. ^{liii}(Silvera et al., 2001), cronbach alpha internal consistency coefficients for social information processing, social skills and social awareness were found to be .81, .86 and .79 respectively.

5.6.3 Nomophobia Scale(NMPS): Nomophobia scale was developed by Yildirim & Correia (2015). The Scale contains 20 questions (NMP-Q) upon 7-point Likert type. The reliability coefficient of the instrument (Cronbach’s alpha) is found .95. According to Field (2005), if the reliability coefficient is greater than .80 then the reliability is very high and stated as excellent. In addition to this, this scale consisted of 4 sub-scales namely; “Not being able to access information” 4 items, “Losing connectedness” 5 items, “Not being able to communicate” 6 items, and “Giving up convenience” 5 items. Reliability coefficients of the sub-scales are .94, .87, .83, and .81 respectively. The NMP-Q was shown to produce valid and reliable scores; and thus, can be used to assess the severity of nomophobia. ^{liv} (Yildirim & Correia, 2015).

5.6.4 Nonattachment Scale(NAS): NAS is short version of the original 30-item Nonattachment Scale ^{lv} (B K Sahdra, Shaver, & Brown, 2010) with the 7-item Nonattachment scale. The NAS measures nonattachment, i.e., a subjective quality characterized by a relative absence of fixation on ideas, images, or sensory objects, as well as an absence of internal pressure to get, hold, avoid, or change circumstances or experiences. Items are scored on a 6-point scale from 1= disagree strongly to 6 = agree strongly. Cronbach alpha was 0. ^{lvi} (Sahdra et al., 2015).

The Buddhist notion of “nonattachment” (release from mental fixations) is related to but distinguishable from the Western construct of attachment. Secure (or insecure) attachment is based on internal working models related to security (or insecurity), whereas nonattachment is based on insight into the constructed and impermanent nature of mental representations. ^{lvii} (Sahdra et al., 2015)

5.6.5 Short Depression Happiness Scale(SDHS): .The depression and happiness scale was developed as part of the positive psychological framework, which is concerned not only with the alleviation of depression but also with the promotion of happiness. ^{lviii} (Joseph, Linley, Harwood, Lewis & McCollam, 2004) .SDHS is the short six-item form of the Depression-Happiness Scale. Six items that loaded consistently highly across three data sets were selected to compose the Short Depression-Happiness Scale (SDHS). In order to maintain the statistical bipolarity of the short scale, three negative items and three positive items were selected. Principal components analysis provided evidence in support of a single-component solution, confirming that the six items can be summed to yield a single score. The SDHS was demonstrated to have good internal consistency reliability and good test-retest reliability over a 2-week period. It was also demonstrated to have good convergent validity with the full DHS, as well as with other established measures of depression and happiness, and good discriminant validity with established measures of free-floating anxiety, somatic anxiety, and hysteria ^{lix} (Joseph, Linley, Harwood, Lewis & McCollam, 2004) .

5.6.6 Bergen Social Media Addiction Scale (BSMAS): Bergen Social Media Addiction Scale (BSMAS) is used to assess problematic social media use. Dr. Cecilie Andraessen designed this scale and found that if diagnosed as

addicted to Facebook, negative effects are the result. *Bergen Social Media Addiction Scale* (BSMAS) is a modified version of the previously validated *Bergen Facebook Addiction Scale* (BFAS; ^{lx}Andreassen et al., 2012). The modification involves using the words 'social media' instead of the word 'Facebook', with social media being defined as "Facebook, Twitter, Instagram and the like" in the instructions. The scale is anchored in general addiction theory, and operationalizes social media addiction according to six basic addiction symptoms noted earlier (i.e., salience, conflict, mood modification, withdrawal, tolerance, and relapse) ^{lxi}(Griffiths, 2005). The Bergen Social Media Addiction Scale (BSMAS) is a newly developed scale that overcomes the aforementioned drawbacks, because it assesses the use of social media activities more generally rather than on one specific platform ^{lxii}(Andreassen et al., 2017). All questions concern experiences occurring over the past year, and are rated on a 5-point Likert scale spanning from Very rarely (1) to Very often (5) (e.g., "How often during the last year have you become restless or troubled if you have been prohibited from using social media?"). The items correspond with diagnostic addiction criteria ^{lxiii}(Andreassen et al., 2017). Internal consistency of the BSMAS in the present study was high ($\alpha = 0.88$). The Cronbach's alpha of the translated BSMAS was .85 in the present.

5.6.7 Gaming Addiction Scale (GAS):

Gaming Addiction Scale was developed by Lemmens, Walkenburg and Peter in 2009. This scale measures the computer and videogame addiction. 21-items to measure seven underlying criteria(i.e., salience, tolerance, mood modification, relapse, withdrawal, conflict and problems). The dimensional structure of the scale was investigated in two independent samples of

adolescent gamers ($N = 352$ and $N = 369$). In both samples, a second-order factor model described our data best. The 21-item scale, as well as a shortened 7-item version, showed high reliabilities. Furthermore, both versions showed good concurrent validity across samples, as indicated by the consistent correlations with usage, loneliness, life satisfaction, social competence, and aggression.^{lxiv} (Lemmens, et al., 2009)

Both the scales show high reliabilities with a Cronbach's alpha of .94 in the first sample and .92 in the second sample. The shortened 7-item version also showed high reliabilities with a Cronbach alpha of .87 in the first sample and .82 in the second sample.^{lxv} (Lemmens, et al., 2009)

5.6.8 INTERVENTION: The study is cross sectional survey study to assess prevalence of Smartphone Addiction correlate with Social Intelligence, Nonattachment, Depression, and Nomophobia. No intervention methods were used.

CHAPTER 6

DATA

EXPLORATION

AND ANALYSIS

6. DATA EXPLORATION AND ANALYSIS

6.1 DATA COLLECTION:

A survey was constructed for this study. The Survey questionnaire was distributed to graduate students in three colleges located in South Bangalore. Survey was administered in their respective classrooms. Each student was given enough time to fill out the questionnaire.

6.2 DATA SCORING:

Smartphone Addiction Scale

SAS have 10 items with 6 points generalize by 1,2,3,4,5 and 6. All 10 items was coded as SA01, SA02, SA03..... SA10. The 10 items are summed up to get a total SAS score with a 10-60 range, where a higher score indicates more serious smartphone addiction.

COMPUTE

SA01+SA02+ SA03+ SA04+ SA05+ SA06+ SA07+ SA08+ SA09+ SA10=Total SAS

EXECUTE

Social intelligence scale

SIS have 21 items with 7 points. 11 items are reverse scoring.

Reverse scoring item no.- SI02, SI04, SI05, SI08, SI11, SI12, SI13, SI15, SI16, SI20, SI21.

Normal scoring item no.- SI01, SI03, SI06, SI07, SI09, SI10, SI14, SI17, SI18, SI19.

Normal scoring: - 1, 2, 3, 4, 5, 6, 7

Reverse scoring: - (1=7), (2=6), (3=5), (4=4), (5=3), (6=2), (7=1).

Sub Scale Correlation		
Social information	Social skill	Social awareness

processing (SP Sub Scale)	(SS Sub Scale)	(SA Sub Scale)
SI01, SI03, SI06, SI09, SI14, SI17, SI19,	SI04, SI07, SI10, SI12, SI15, SI18, SI20,	SI02, SI05, SI08, SI11, SI13, SI16, SI21,

BSMAS Bergen Social Media Addiction Scale

BSMAS has 6 items with 5 points generalize by 1,2,3,4,5. All 6 items were coded as BSMAS01, BSMAS02, BSMAS03, BSMAS04, BSMAS05,BSMA06. All the 6 items are summed up with a range of 6-30, where a higher score indicates how strongly the sample is addicted to Social Media.

COMPUTE

$$BSMAS = BSMAS01+BSMAS02+BSMAS03+BSMAS04+BSMAS05+BSMAS06$$

EXECUTE

GAS Gaming Addiction Scale

GAS has 7 items with 5 points generalize by 1,2,3,4,5. All 7 items were coded as GAS01, GAS02, GAS03, GAS04, GAS05, GAS06, GAS07. All the 7 item is summed up with a range of 7-35 range. Where a higher score indicates how strongly sample is addicted to Gaming.

COMPUTE

$$\text{Gaming Addiction Scale} = GAS01+GAS02+GAS03+GAS04+GAS05+GAS06+GAS07$$

EXECUTE

Nonattachment

NAS have 7 items with 6 points generalize by 1,2,3,4,5 and 6. All 7 items was coded as NA01, NA02, NA03..... NA07. The 7 items are summed up to get a total NAS score with a 7-42 range, where a higher score indicates more serious Nonattachment.

COMPUTE

Nonattachment= NA01+NA02+NA03+NA04+NA05+NA06

EXECUTE

Short Depression Happiness Scale

SDHS have 6 items with 4 points. 3 items are reverse scoring.

Normal scoring item no.- SDHS02, SDHS04, SDHS05.

Reverse scoring item no.- SDHS01, SDHS03, SDHS06.

(1=4), (2=3), (3=2), (4=1)

RECODE: - SDHS01R, SDHS02, SDHS03R, SDHS04, SDHS05, SDHS06R (1=0), (2=1),

(3=2), (4=3)

COMPUTE

Happiness= SDHS01R+SDHS02+SDHS03R+SDHS04+SDHS05+SDHS06R

EXECUTE

Nomophobia

NMP have 20 items with 7 points, it is divided into 4 factors

Factor1 – Not being able to communicate; Factor2 – Losing connectedness;

Factor3 – Not being able to access; Factor4 – Giving up convenience.

Factor 1=NMP01+ NMP02+ NMP03+ NMP04

Factor 2= NMP05+ NMP06+ NMP07+ NMP08+ NMP09

Factor 3= NMP10+ NMP11+ NMP12+ NMP13+ NMP14+ NMP15

Factor 4= NMP16+ NMP17+ NMP18+ NMP19+ NMP20

Item Analysis of the NMP Questionnaire:

Factor 1 Not being able to communicate	Factor 2 Losing connectedness	Factor 3 Not being able to access information	Factor 4 Giving up convenience
NMP01, NMP02, NMP03, NMP04	NMP05, NMP06, NMP07, NMP08, NMP09	NMP010, NMP11, NMP12, NMP13, NMP14, NMP15	NMP16, NMP17, NMP18, NMP19, NMP20

6.3 DATA ANALYSIS:

All variable was as a mean ± standard deviation. The correlation significant test was used for analysis of correlation between smartphone addiction and SI, NA, NMP, and depression in all groups. Statistical significant was set up $p < 0.05$, and all the analysis were performed using SPSS.

CHAPTER 7

RESULTS

7. RESULTS

The cross-sectional design studies have the significant results as following

The total sample size is 510. Their age ranges from 18 to 25 years with a mean

1. Social Information is negatively correlated with

- Game Addiction ($r = -0.078$, $n = 510$, $p = 0.080$)
- Smart Phone Addiction ($r = -0.052$, $n = 510$, $p = 0.243$)

Social Information is positively correlated with

- Social Skill ($r = -0.135$, $n = 510$, $p = 0.002$)
- Social Intelligence ($r = -0.0549$, $n = 510$, $p = 0.000$)

2. Social Skill is negatively correlated with

- Social Media Addiction ($r = -0.006$, $n = 510$, $p = 0.897$)
- Game Addiction ($r = -0.029$, $n = 510$, $p = 0.518$)
- Smart Phone Addiction ($r = -0.003$, $n = 510$, $p = 0.940$)

Social Skill is positively correlated with

Social Awareness ($r = 0.143$, $n = 510$, $p = 0.001$)

Happiness ($r = 0.087$, $n = 510$, $p = 0.048$)

Social Intelligence ($r = 0.686$, $n = 510$, $p = 0.000$)

3. Social Awareness is negatively correlated with

- Game Addiction ($r = -0.033$, $n = 510$, $p = 0.455$)
- Smart Phone Addiction ($r = -0.070$, $n = 510$, $p = 0.112$)

- Social Media Addiction ($r = -0.086$, $n = 510$, $p = 0.053$)

Social Awareness is positively correlated with

- Social Intelligence ($r = .467$, $n = 510$, $p = .000$)
- Happiness ($r = 0.034$, $n = 510$, $p = .444$)

4. Social Intelligence is negatively correlated with

- Social Media Addiction ($r = -0.023$, $n = 510$, $p = .612$)
- Game Addiction ($r = -0.087$, $n = 510$, $p = 0.050$)
- Smart Phone Addiction ($r = -0.079$, $n = 510$, $p = 0.074$)

Social Intelligence is positively correlated with

- Happiness ($r = .048$, $n = 510$, $p = .282$)

5. Social Media Addiction is negatively correlated with

- Happiness ($r = -0.181$, $n = 510$, $p = 0.000$)

Social Media Addiction is positively correlated with

- Game Addiction ($r = 0.284$, $n = 510$, $p = 0.000$)
- Smart Phone Addiction ($r = 0.440$, $n = 510$, $p = 0.000$)

6. Game Addiction is negatively correlated with

- Happiness ($r = -0.155$, $n = 510$, $p = 0.000$)

Game Addiction is positively correlated with

- Smart Phone Addiction ($r = 0.289$, $n = 510$, $p = 0.000$)

7. Smart Phone Addiction is negatively correlated with

- Happiness ($r = -0.129$, $n = 510$, $p = 0.003$)

Among our young smartphone users, males (n=287) 57% and females (n= 224) 43%. Married (n=4) 4.4% and single (n=) 95.6%. Their socio-economic status is low (n=80) 17.9%, medium (n=356) 79.6% and high (n=11) 2.5%. They all live in urban area (n=390) 81.2%, sub rural area (n=51) 10.6% and sub-urban area (n=39) 8.1%. They have 89% (n= 457) is using a mobile data plan to excess internet through their smart phone and 11% (n=52) not using. They are spending their time for using smartphone is listed as 5.7% for 0-30min, 7.1% for 30min-1hrs, 12.3% for 1-1.5hrs, 11.3% for 1.5-2hrs, 12.6% for 2-2.5hrs, 5.9% for 2.5-3hrs, 8.5% for 3-3.5hrs, 7.9% for 3.5-4hrs and 28.7% for more than 4hrs. They are watching their phone often as 14% every 5min, 17.1% every 10min, 11.2% every 20min, 11.6% every 30min, 21.5% every hour, 11.6% every 2hours, 6.0% every 3hours, 7.0% more than 3 hours. Most of my sample size using the smart phone for **communication** is listed as 44.3% for 0-30min, 28.2% for 30min-1hrs, 12.3% for 1-1.5hrs, 3.8% for 1.5-2hrs, 2.8% for 2-2.5hrs, 2.0% for 2.5-3hrs, 1.2% for 3-3.5hrs, 1.0% for 3.5-4hrs and 4.4% for more than 4hrs.

Most of my sample size using the smart phone for **Social Networking** is listed as 21.8% for 0-30min, 22.2% for 30min-1hrs, 12.7% for 1-1.5hrs, 11.6% for 1.5-2hrs, 7.1% for 2-2.5hrs, 4.0% for 2.5-3hrs, 3.7% for 3-3.5hrs, 3.5% for 3.5-4hrs and 13.3% for more than 4hrs.

Most of my sample size using the smart phone for **Obtaining Information** is listed as 45.5% for 0-30min, 25.5% for 30min-1hrs, 13.9% for 1-1.5hrs, 5.0% for 1.5-2hrs, 3.2% for 2-2.5hrs, 3.2% for 2.5-3hrs, 0.6% for 3-3.5hrs, 1.1% for 3.5-4hrs and 1.9% for more than 4hrs.

Most of my sample size using the smart phone for **Entertainment and Media Consumption** is listed as 20.7% for 0-30min, 19.8% for 30min-1hrs, 15.7% for 1-1.5hrs, 11.7% for 1.5-2hrs, 11.3% for 2-2.5hrs, 9.2% for 2.5-3hrs, 3.1% for 3-3.5hrs, 1.9% for 3.5-4hrs and 6.7% for more than 4hrs.

Most of my sample size using the smart phone for **Shopping Buying Items** is listed as 67.8% for 0-30min, 16.0% for 30min-1hrs, 7.9% for 1-1.5hrs, 2.9% for 1.5-2hrs, 2.7% for 2-2.5hrs, 0.5% for 2.5-3hrs, 0.7% for 3-3.5hrs, 0.7% for 3.5-4hrs and 0.9% for more than 4hrs.

Most of my sample size using the smart phone for **E-Commerce** is listed as 67.9% for 0-30min, 18.9% for 30min-1hrs, 4.8% for 1-1.5hrs, 3.4% for 1.5-2hrs, 1.4% for 2-2.5hrs, 0.7% for 2.5-3hrs, 0.7% for 3-3.5hrs, 1.4% for 3.5-4hrs and 1.4% for more than 4hrs.

Most of my sample size using the smart phone for **Booking events trips** is listed as 76.9% for 0-30min, 13.3% for 30min-1hrs, 3.6% for 1-1.5hrs, 1.9% for 1.5-2hrs, 1.7% for 2-2.5hrs, 1.7% for 2.5-3hrs, 1.2% for 3-3.5hrs, 1.0% for 3.5-4hrs and 1.2% for more than 4hrs.

Most of my sample size using the smart phone for **Financial Services** is listed as 77.6% for 0-30min, 16.2% for 30min-1hrs, 3.0% for 1-1.5hrs, 1.0% for 1.5-2hrs, 0.5% for 2-2.5hrs, 1.2% for 2.5-3hrs, 0.2% for 3-3.5hrs, 1.0% for 3.5-4hrs and 0.2% for more than 4hrs.

Most of my sample size using the smart phone for **Blogging** is listed as 76.2% for 0-30min, 12.7% for 30min-1hrs, 6.1% for 1-1.5hrs, 1.6% for 1.5-2hrs, 1.3% for 2-2.5hrs, 0.8% for 2.5-3hrs, 0.3% for 3-3.5hrs, 0.5% for 3.5-4hrs and 0.5% for more than 4hrs.

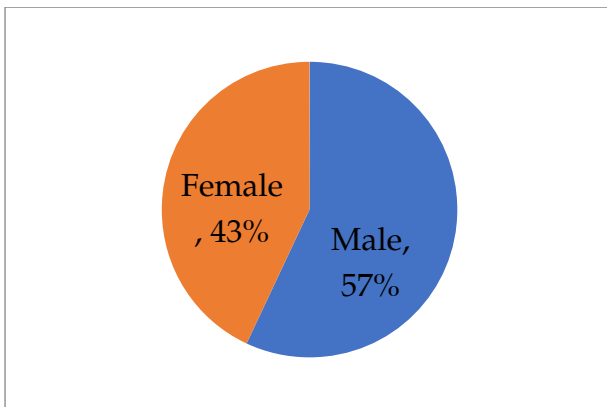
Most of my sample size using the smart phone for **Education and Training** is listed as 38.4% for 0-30min, 24.1% for 30min-1hrs, 17.0% for 1-1.5hrs, 7.7% for 1.5-2hrs, 3.8% for 2-2.5hrs, 1.5% for 2.5-3hrs, 2.2% for 3-3.5hrs, 1.8% for 3.5-4hrs and 3.5% for more than 4hrs.

Using phone for Checking email 49.02%; Checking lecture notes 32%; Checking social media 70.2%; Gaming 58.4%; Getting news 46.08%; killing time 37.1%; Looking information up on the internet 12.08%; Listening to music 86.5%;

Scheduling meetings and events 17.3%; Talking with family or friends 75.7%; Texting family or friends 81.2%; . At the dinner table 31%; Between classes 42.2%; During a class 24.1%; In the restroom 23.7%; On public transportation 66.3%; While driving 12.9%; When I'm alone 84.7%; When I'm bored 89.6%; While hanging out with friends 41.8%; While talking to somebody 3.05%; while waiting for someone or something 0.35%; While walking 42.2%; While watching TV or a movie 48.82%;

Table no. 1 Gender		
Sex	N	Percentage
Male	287	43%
Female	224	57%

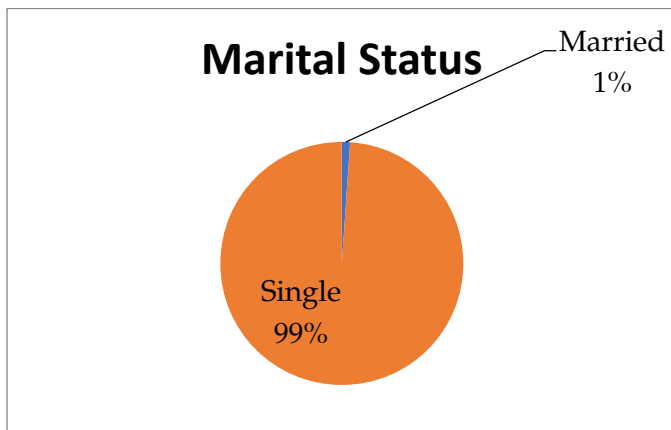
Graph no. 1 Gender:



Among the sample chosen male students are 57% and female students are 43%.

Table no. 2 Marital Status		
Marital Status	N	Percentage
Married	4	1%
Single	362	99%

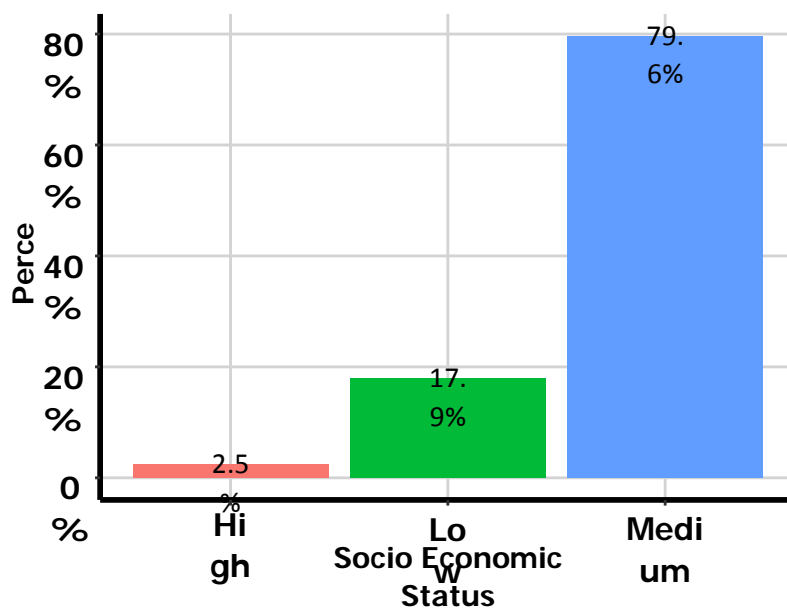
Graph no. 2 Marital Status:



Among the college students in the sample only 1% of the students are married and rest of the 99% were single.

Socio Economic Status	N	Percentage
High	11	2.5%
Low	80	17.9%
Medium	356	79.6%

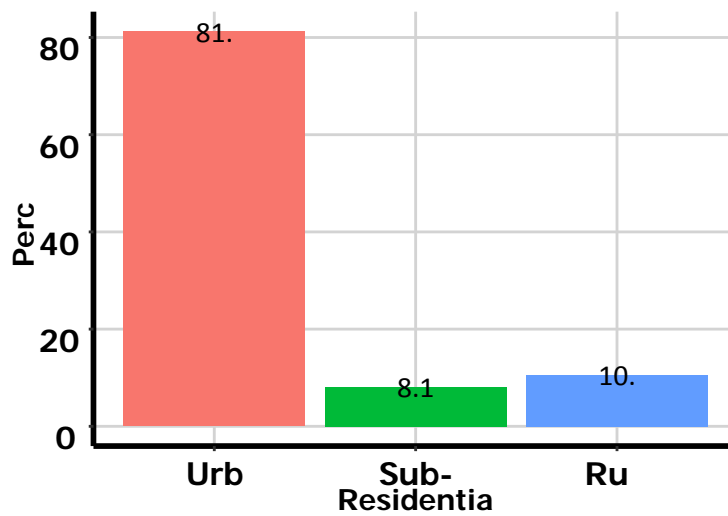
Graph no. 3 Socio Economic Status



Their socio-economic status is low 80(17.9%), medium 356(79.6%) and high 11(2.5%).

Table no. 4 Residential Areas		
Residential areas	N	Percentage
Urban	390	81.00%
Sub-urban	39	8.1%
Rural	51	10.00

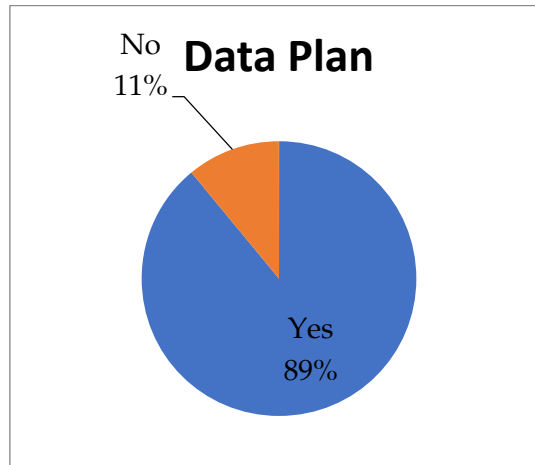
Graph no. 4 Residential Areas:



Among them 390(81.2%) live in urban area, 39(8.1%) live in sub Urban area and 51(10.6%) live in rural area.

Table no. 5 Data Plan

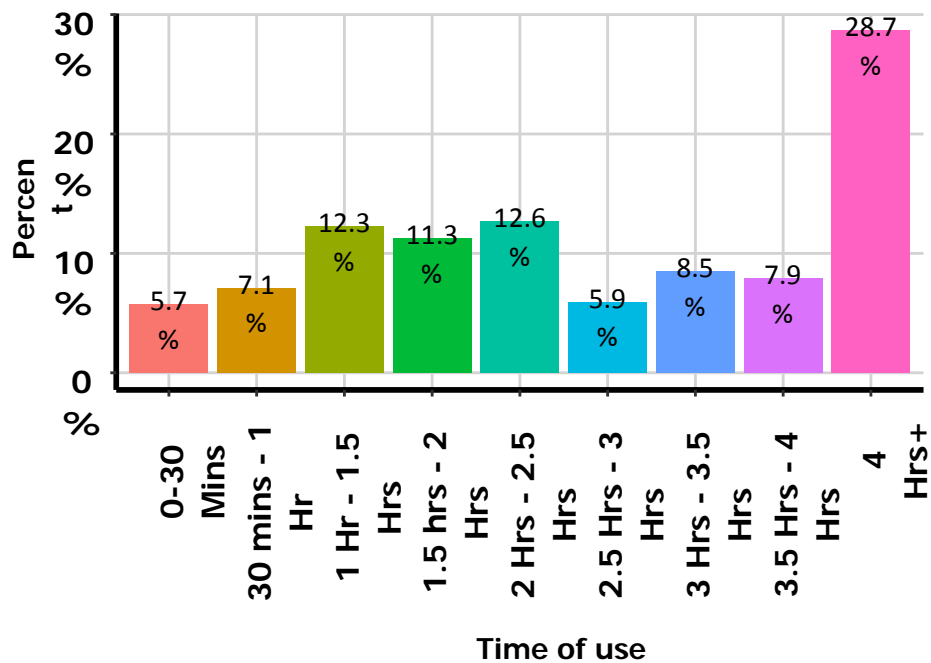
Data Plan	N	Percentage
Yes	457	89%
No	52	11%

Graph no. 5 Data Plan:

Among them 89% of my sample size is using a mobile data plan to access internet through their smart phone and 11% not using.

Time of use	N	Percentage
0-30 Mins	29	5.7%
30 mins - 1 Hr	36	7.1%
1 Hr - 1.5 Hrs	62	12.3%
1.5 hrs - 2 Hrs	57	11.3%
2 Hrs - 2.5 Hrs	64	12.6%
2.5 Hrs - 3 Hrs	30	5.9%
3 Hrs - 3.5 Hrs	43	8.5%
3.5 Hrs - 4 Hrs	40	7.9%
4 Hrs+	145	28.7%

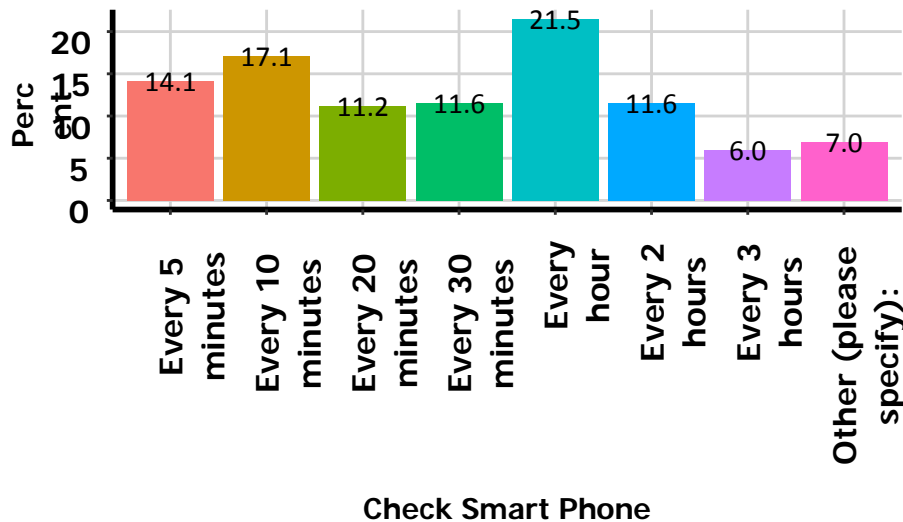
Graph no. 6 Time of Use:



They are spending their time for using smartphone is listed as 5.7% for 0-30min, 7.1% for 30min-1hrs, 12.3% for 1-1.5hrs, 11.3% for 1.5-2hrs, 12.6% for 2-2.5hrs, 5.9% for 2.5-3hrs, 8.5% for 3-3.5hrs, 7.9% for 3.5-4hrs and 28.7% for more than 4hrs.

Table no. 7 Check Smart Phone Per Day		
Check Smart Phone per day	N	Percentage
Every 5 minutes	71	14.1%
Every 10 minutes	86	17.1%
Every 20 minutes	56	11.2%
Every 30 minutes	58	11.6%
Every hour	108	21.5%
Every 2 hours	58	11.6%
Every 3 hours	30	6.0%
Other (please specify):	35	7.0%

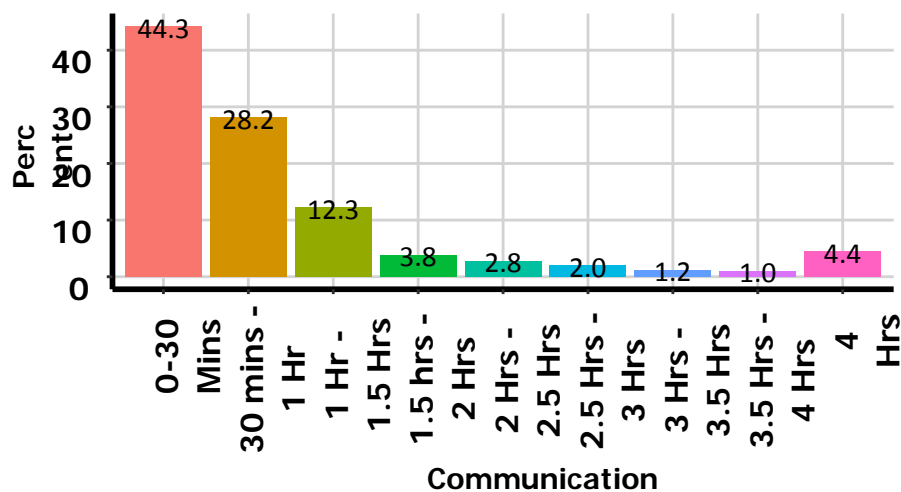
Graph no. 7 Check Smart Phone Per Day:



They are watching their phone often as 14.1% every 5min, 17.1% every 10min, 11.2% every 20min, 11.6% every 30min, 21.5% every hour, 11.6% every 2hours, 6.0% every 3hours and 7.0% other times .

Table no. 8 Communication		
Communication	N	Percentage
0-30 Mins	220	44.3%
30 mins - 1 Hr	140	28.2%
1 Hr - 1.5 Hrs	61	12.3%
1.5 hrs - 2 Hrs	19	3.8%
2 Hrs - 2.5 Hrs	14	2.8%
2.5 Hrs - 3 Hrs	10	2.0%
3 Hrs - 3.5 Hrs	6	1.2%
3.5 Hrs - 4 Hrs	5	1.0%
4 Hrs+	22	4.4%

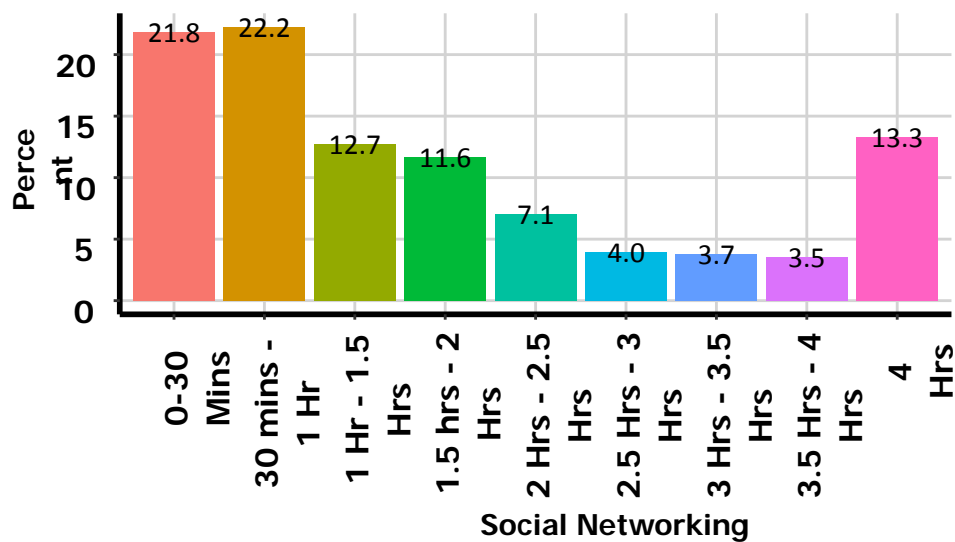
Graph no. 8 Communication:



The time they are using the smartphone for Communication listed as 44.3% for 0-30min, 28.2% for 30min-1hrs, 12.3% for 1-1.5hrs, 3.8% for 1.5-2hrs, 2.8% for 2-2.5hrs, 2.0% for 2.5-3hrs, 1.2% for 3-3.5hrs, 1.0% for 3.5-4hrs and 4.4% for more than 4hrs.

Table no. 9 Social Networking		
Social Networking	N	Percentage
0-30 Mins	105	21.8%
30 mins - 1 Hr	107	22.2%
1 Hr - 1.5 Hrs	61	12.7%
1.5 hrs - 2 Hrs	56	11.6%
2 Hrs - 2.5 Hrs	34	7.1%
2.5 Hrs - 3 Hrs	19	4.0%
3 Hrs - 3.5 Hrs	18	3.7%
3.5 Hrs - 4 Hrs	17	3.5%
4 Hrs+	64	13.3%

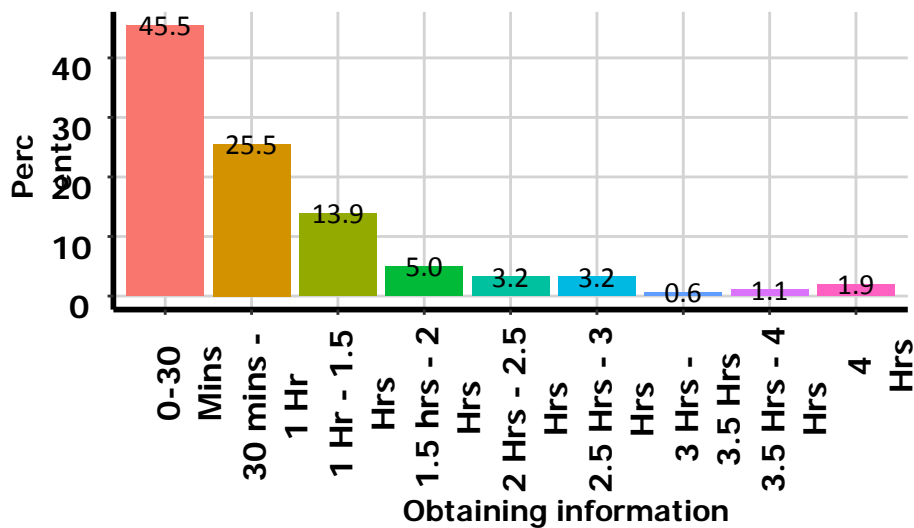
Graph no.9 Social Networking:



The time they are using the smartphone for Social Networking listed as 21.8% for 0-30min, 22.2% for 30min-1hrs, 12.7% for 1-1.5hrs, 11.6% for 1.5-2hrs, 7.1% for 2-2.5hrs, 4.0% for 2.5-3hrs, 3.7% for 3-3.5hrs, 3.5% for 3.5-4hrs and 13.3% for more than 4hrs.

Table no. 10 Obtaining Information		
Obtaining information	N	Percentage
0-30 Mins	210	45.5%
30 mins - 1 Hr	118	25.5%
1 Hr - 1.5 Hrs	64	13.9%
1.5 hrs - 2 Hrs	23	5.0%
2 Hrs - 2.5 Hrs	15	3.2%
2.5 Hrs - 3 Hrs	15	3.2%
3 Hrs - 3.5 Hrs	3	0.6%
3.5 Hrs - 4 Hrs	5	1.1%
4 Hrs+	9	1.9%

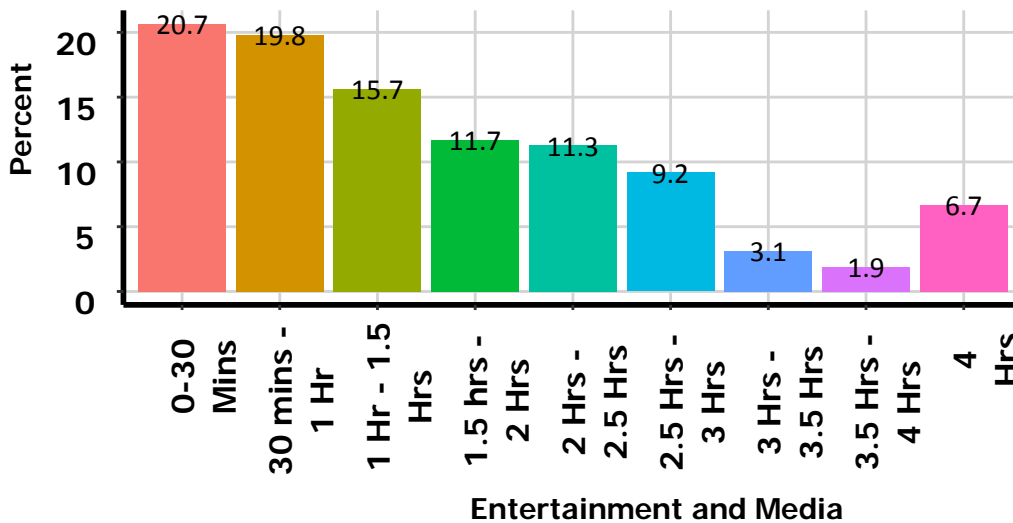
Graph no. 10 Obtaining Information:



The time they are using the smartphone for Obtaining Information listed as 45.5% for 0-30min, 25.5% for 30min-1hrs, 13.9% for 1-1.5hrs, 5.0% for 1.5-2hrs, 3.2% for 2-2.5hrs, 3.2% for 2.5-3hrs, 0.6% for 3-3.5hrs, 1.1% for 3.5-4hrs and 1.9% for more than 4hrs.

Table no. 11 Entertainment and Media		
Entertainment and Media	N	Percentage
0-30 Mins	99	20.7%
30 mins - 1 Hr	95	19.8%
1 Hr - 1.5 Hrs	75	15.7%
1.5 hrs - 2 Hrs	56	11.7%
2 Hrs - 2.5 Hrs	54	11.3%
2.5 Hrs - 3 Hrs	44	9.2%
3 Hrs - 3.5 Hrs	15	3.1%
3.5 Hrs - 4 Hrs	9	1.9%
4 Hrs+	32	6.7%

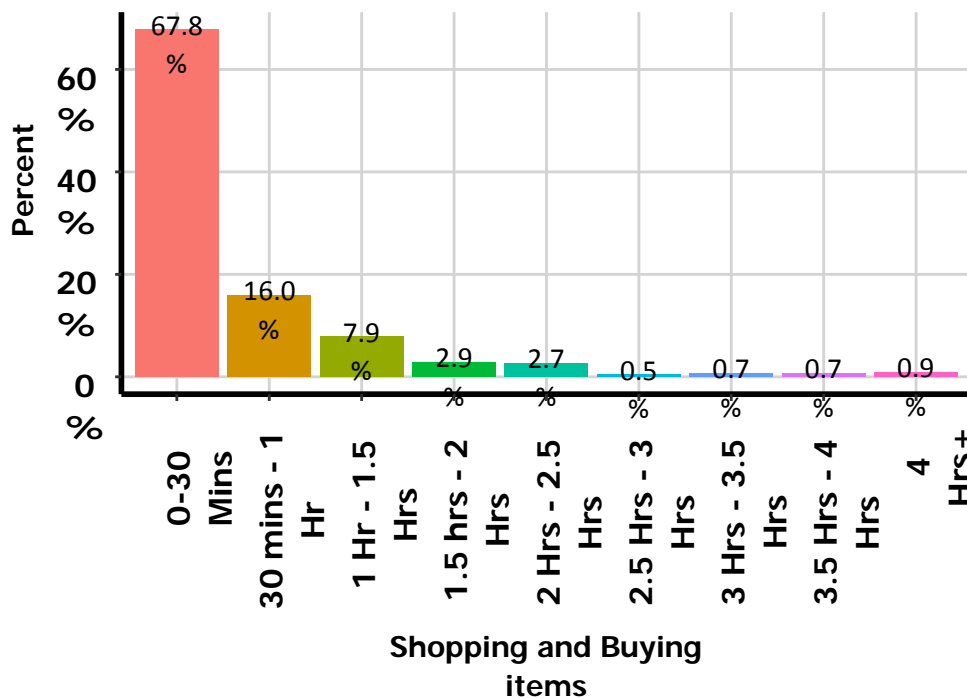
Graph no. 11 Entertainment and Media:



The time they are using the smartphone for Entertainment and Media listed as 20.7% for 0-30min, 19.8% for 30min-1hrs, 15.7% for 1-1.5hrs, 11.7% for 1.5-2hrs, 11.3% for 2-2.5hrs, 9.2% for 2.5-3hrs, 3.1% for 3-3.5hrs, 1.9% for 3.5-4hrs and 6.7% for more than 4hrs.

Table no. 12 Shopping and buying items		
Shopping and Buying items	N	Percentage
0-30 Mins	301	67.8%
30 mins - 1 Hr	71	16.0%
1 Hr - 1.5 Hrs	35	7.9%
1.5 hrs - 2 Hrs	13	2.9%
2 Hrs - 2.5 Hrs	12	2.7%
2.5 Hrs - 3 Hrs	2	0.5%
3 Hrs - 3.5 Hrs	3	0.7%
3.5 Hrs - 4 Hrs	3	0.7%
4 Hrs+	4	0.9%

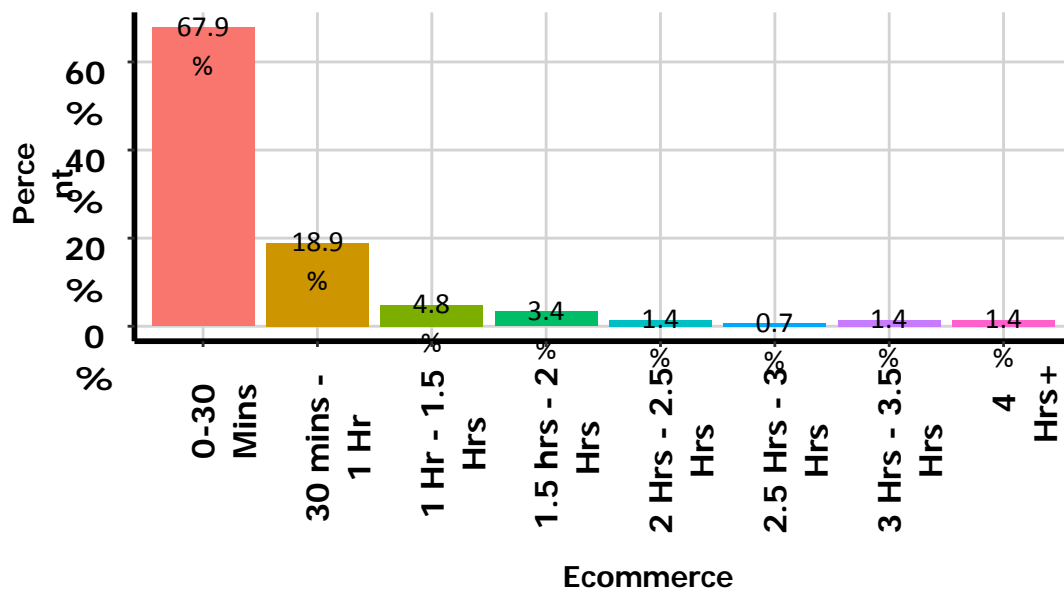
Graph no. 12 Shopping and buying items:



The time they are using the smartphone for Shopping and Buying items are listed as 67.8% for 0-30min, 16.0% for 30min-1hrs, 7.9% for 1-1.5hrs, 2.9% for 1.5-2hrs, 2.7% for 2-2.5hrs, 0.5% for 2.5-3hrs, 0.7% for 3-3.5hrs, 0.7% for 3.5-4hrs and 0.9% for more than 4hrs.

E commerce	N	Percentage
0-30 Mins	283	67.9%
30 mins - 1 Hr	79	18.9%
1 Hr - 1.5 Hrs	20	4.8%
1.5 hrs - 2 Hrs	14	3.4%
2 Hrs - 2.5 Hrs	6	1.4%
2.5 Hrs - 3 Hrs	3	0.7%
3 Hrs - 3.5 Hrs	6	1.4%
3.5 Hrs - 4 Hrs	0	NaN%
4 Hrs+	6	1.4%

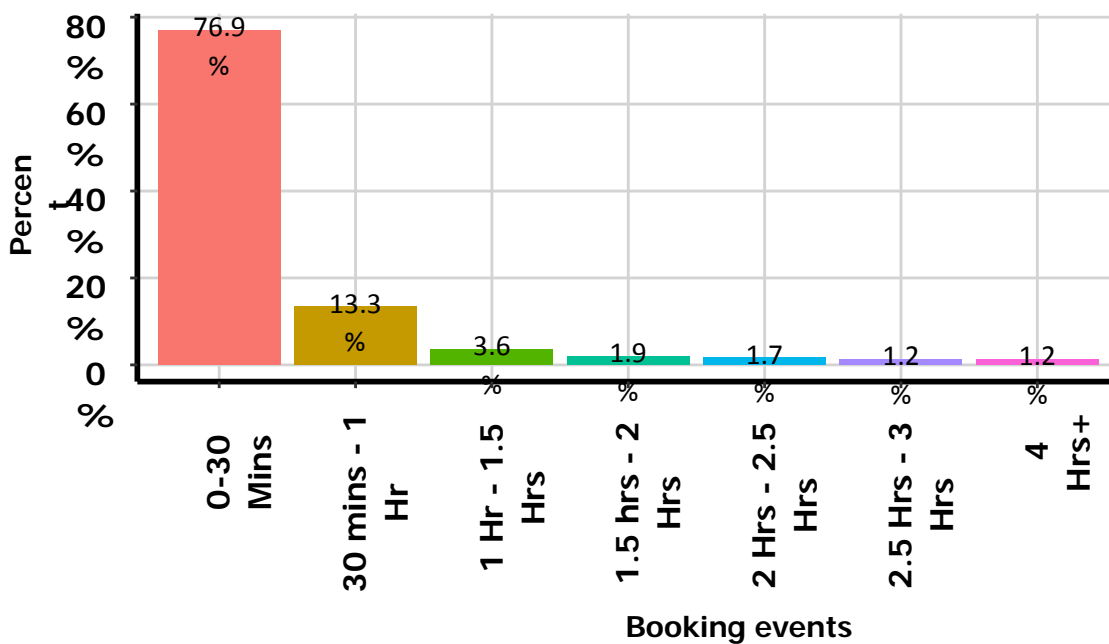
Graph no. 13 Ecommerce:



The time they are using the smartphone for Ecommerce listed as 67.9% for 0-30min, 18.9% for 30min-1hrs, 4.8% for 1-1.5hrs, 3.4% for 1.5-2hrs, 1.4% for 2-2.5hrs, 0.7% for 2.5-3hrs, 1.4% for 3-3.5hrs, 7.9% for 3.5-4hrs and 1.4% for more than 4hrs.

Table no. 14 Booking Events		
Booking events	N	Percentage
0-30 Mins	317	76.9%
30 mins - 1 Hr	55	13.3%
1 Hr - 1.5 Hrs	15	3.6%
1.5 hrs - 2 Hrs	8	1.9%
2 Hrs - 2.5 Hrs	7	1.7%
2.5 Hrs - 3 Hrs	5	1.2%
3 Hrs - 3.5 Hrs	0	NaN%
3.5 Hrs - 4 Hrs	0	NaN%
4 Hrs+	5	1.2%

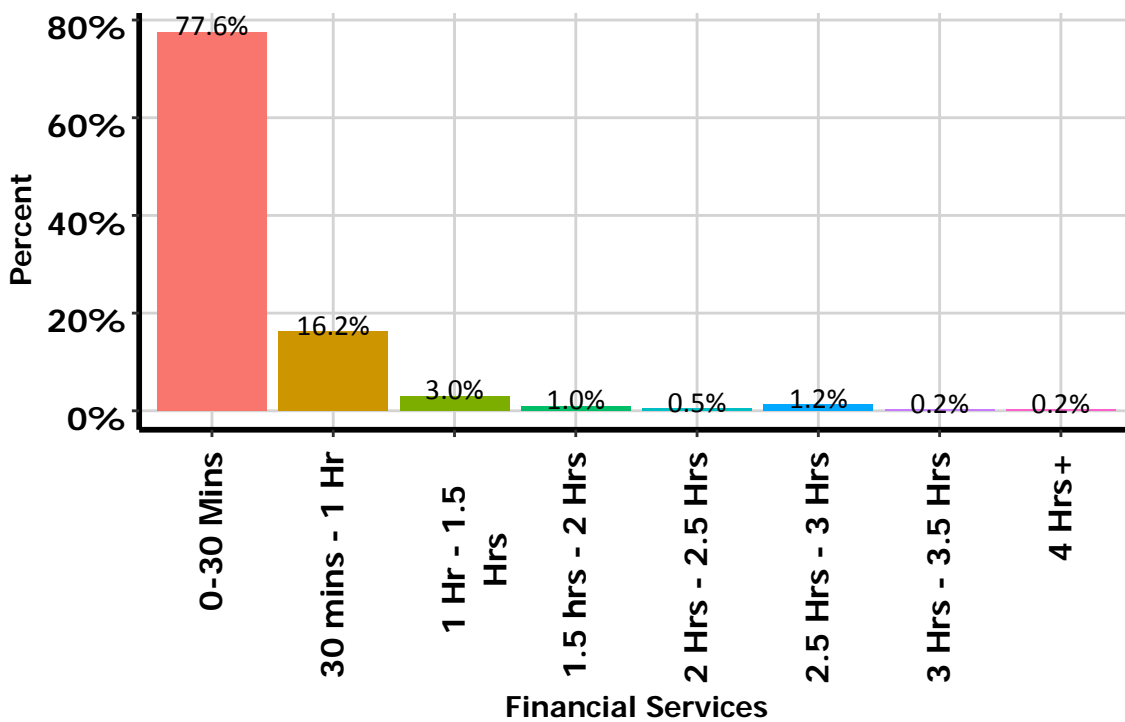
Graph no. 14 Booking Events:



The time they are using the smartphone for Booking events are listed as 76.9% for 0-30min, 13.3% for 30min-1hrs, 3.6% for 1-1.5hrs, 1.9% for 1.5-2hrs, 1.7% for 2-2.5hrs, 1.2% for 2.5-3hrs, 8.5% for 3-3.5hrs, 7.9% for 3.5-4hrs and 1.2% for more than 4hrs.

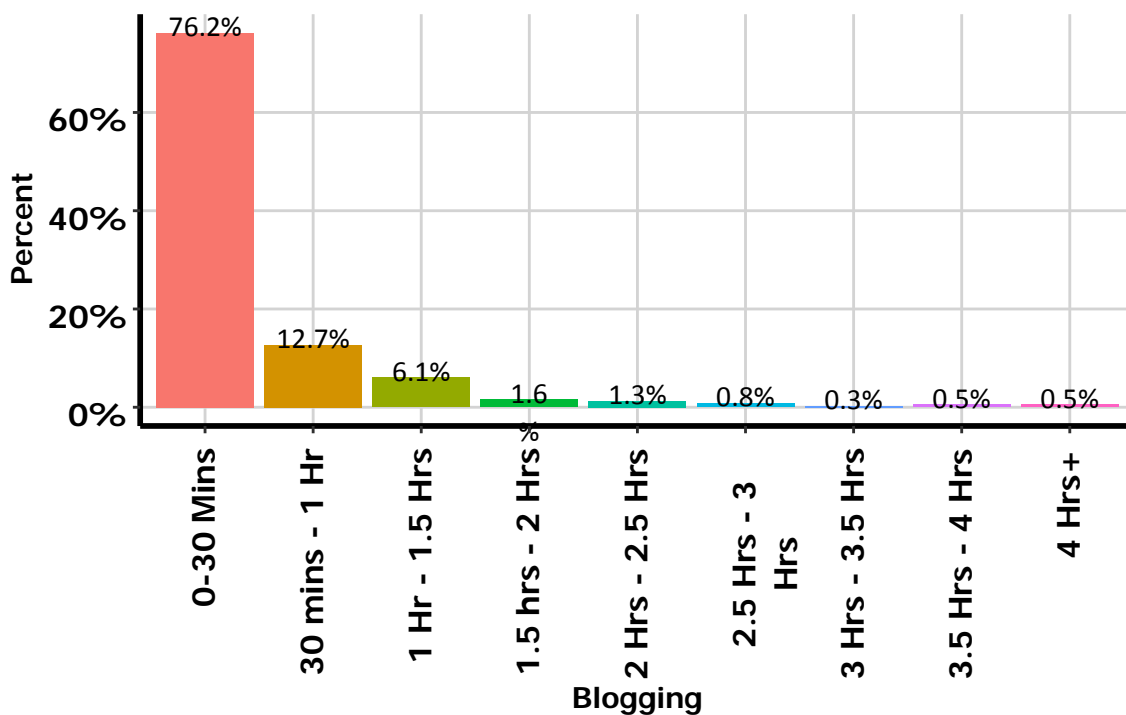
Table no. 15 Financial Services		
Financial Services	N	Percentage
0-30 Mins	311	77.6%
30 mins - 1 Hr	65	16.2%
1 Hr - 1.5 Hrs	12	3.0%
1.5 hrs - 2 Hrs	4	1.0%
2 Hrs - 2.5 Hrs	2	0.5%
2.5 Hrs - 3 Hrs	5	1.2%
3 Hrs - 3.5 Hrs	1	0.2%
3.5 Hrs - 4 Hrs	1	0.1%
4 Hrs+	1	0.2%

Graph no. 15 Financial Services:



The duration they are using the smartphone for Financial Services are listed as 77.6% for 0-30min, 16.2% for 30min-1hrs, 3.0% for 1-1.5hrs, 1.0% for 1.5-2hrs, 0.5% for 2-2.5hrs, 1.2% for 2.5-3hrs, 0.2% for 3-3.5hrs, 0.1% for 3.5-4hrs and 0.2% for more than 4hrs.

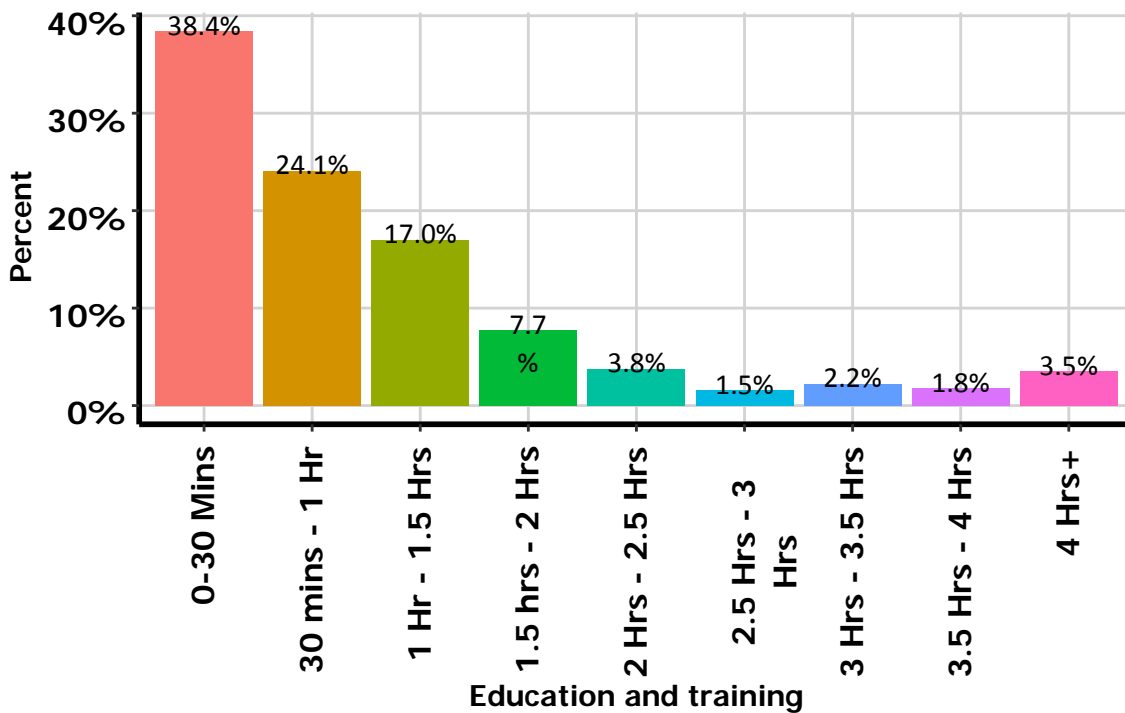
Blogging	N	Percentage
0-30 Mins	288	76.2%
30 mins - 1 Hr	48	12.7%
1 Hr - 1.5 Hrs	23	6.1%
1.5 hrs - 2 Hrs	6	1.6%
2 Hrs - 2.5 Hrs	5	1.3%
2.5 Hrs - 3 Hrs	3	0.8%
3 Hrs - 3.5 Hrs	1	0.3%
3.5 Hrs - 4 Hrs	2	0.5%
4 Hrs+	2	0.5%

Graph no. 16 Blogging:

The duration they are using the smartphone for blogging are listed as 76.2% for 0-30min, 12.7% for 30min-1hrs, 6.1% for 1-1.5hrs, 1.6% for 1.5-2hrs, 1.3% for 2-2.5hrs, 0.8% for 2.5-3hrs, 0.3% for 3-3.5hrs, 0.5% for 3.5-4hrs and 0.5% for more than 4hrs.

Table no. 17 Education and training		
Education and training	N	Percentage
0-30 Mins	174	38.4%
30 mins - 1 Hr	109	24.1%
1 Hr - 1.5 Hrs	77	17.0%
1.5 hrs - 2 Hrs	35	7.7%
2 Hrs - 2.5 Hrs	17	3.8%
2.5 Hrs - 3 Hrs	7	1.5%
3 Hrs - 3.5 Hrs	10	2.2%
3.5 Hrs - 4 Hrs	8	1.8%
4 Hrs+	16	3.5%

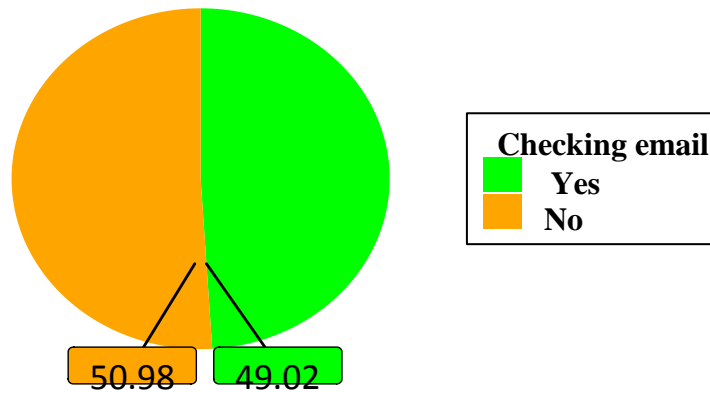
Graph no. 17 Education and training:



The duration they are using the smartphone for Education and training are listed as 38.4% for 0-30min, 24.1% for 30min-1hrs, 17.0% for 1-1.5hrs, 7.7% for 1.5-2hrs, 3.8% for 2-2.5hrs, 1.5% for 2.5-3hrs, 2.2% for 3-3.5hrs, 1.8% for 3.5-4hrs and 3.5% for more than 4hrs.

Table no. 18 Checking Mail		
Checking email	N	Percentage
Yes	250	49.02%
No	260	50.98%

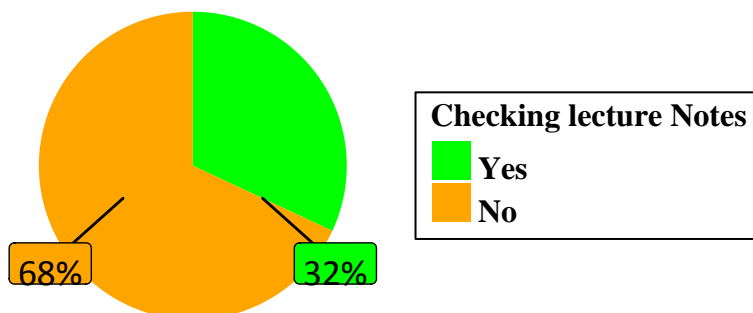
Graph no. 18 Checking Mail:



Among the sample 250 (49.02%) of the students were using smartphone for checking the e-mail

Table no. 19 Checking Lecture Notes		
Checking lecture Notes	N	Percentage
Yes	163	32%
No	347	68%

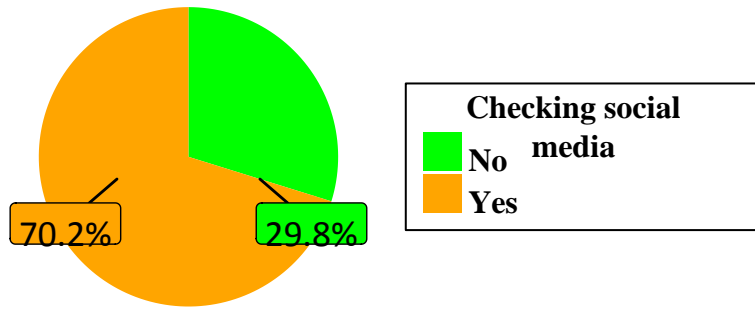
Graph no. 19 Checking Lecture Notes:



Among the sample 163 (32%) of the students were using the smartphone for checking lecture notes

Table no. 20 Checking Social Media		
Checking social media	N	Percentage
Yes	358	70.2%
No	152	29.8%

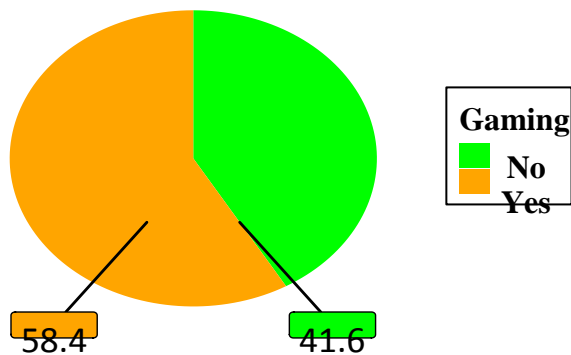
Graph no. 20 Checking Social Media:



Among the sample majority 358 (70.2%) of the students were using the smartphone for checking Social Media.

Table no. 21 Gaming		
Gaming	N	Percentage
Yes	298	58.4%
No	212	41.6%

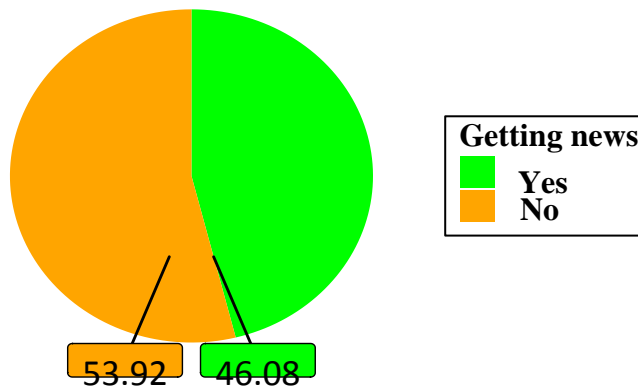
Graph no. 21 Gaming:



Among the sample 298 (58.4%) of the students were using the smartphone for gaming.

Table no. 22 Getting news		
Getting news	N	Percentage
Yes	235	46.08%
No	275	53.92%

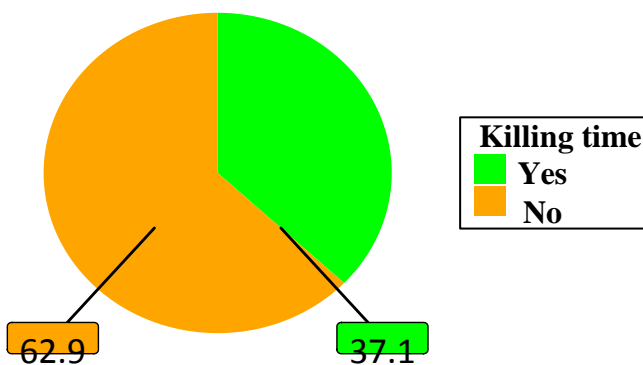
Graph no. 22 Getting news:



Among the sample 235 (46.08%) of the students were using the smartphone for Getting news.

Table no. 23 Killing Time		
Killing time	N	Percentage
Yes	189	37.1%
No	321	62.9%

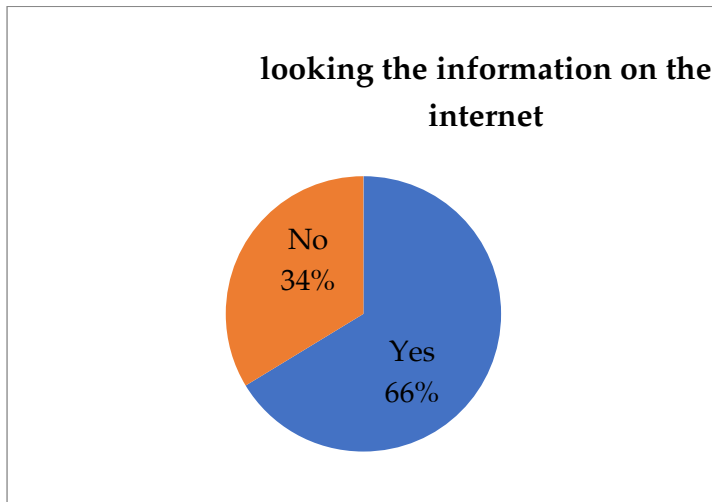
Graph no. 23 Killing Time:



Among the sample 89 (37.1%) of the students were using the smartphone for Killing time.

Table no. 24 Looking Information up on the internet		
Looking information up on the Internet	N	Percentage
Yes	338	66%
No	172	34%

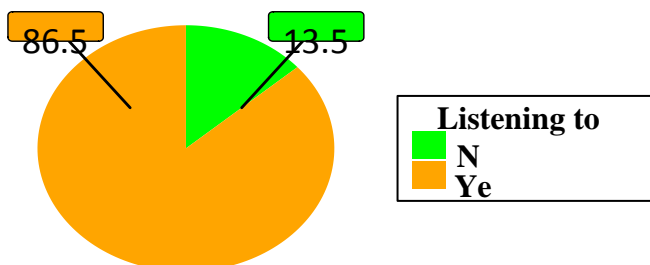
Graph no. 24 Looking Information up on the internet:



Among the sample 338 (66%) of the students were using the smartphone for looking the information on the internet.

Table no. 25 Listening to music		
Listening to music	N	Percentage
Yes	441	86.5%
No	69	13.5%

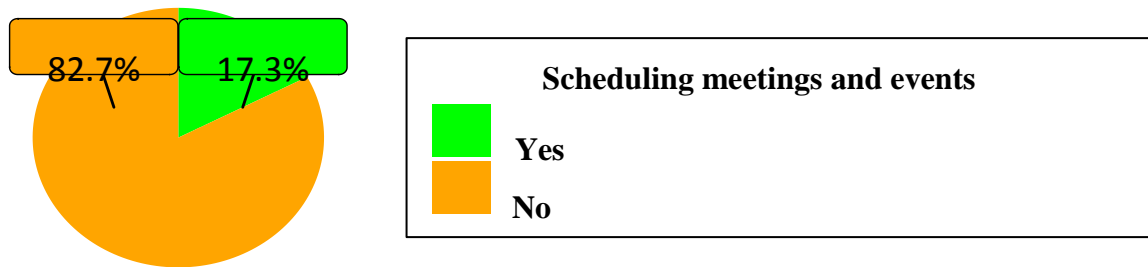
Graph no. 25 Listening to music:



Among the sample majority 441 (86.5%) of the students were using the smartphone for listening to music.

Table no. 26 Scheduling meeting and events		
Scheduling meetings and events	N	Percentage
Yes	88	17.3%
No	422	82.7%

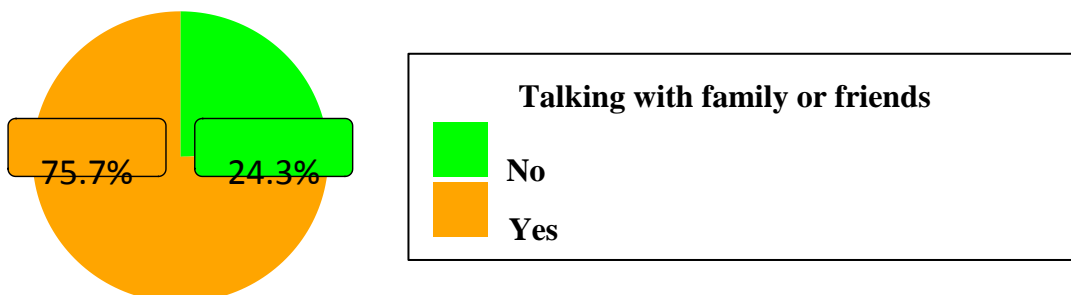
Graph no. 26 Scheduling meetings and events:



Among the sample 88 (17.3%) of the students were using the smartphone for scheduling meetings and events.

Table no. 27 Talking with family or friends		
Talking with family or friends	N	Percentage
Yes	386	75.7%
No	124	24.3%

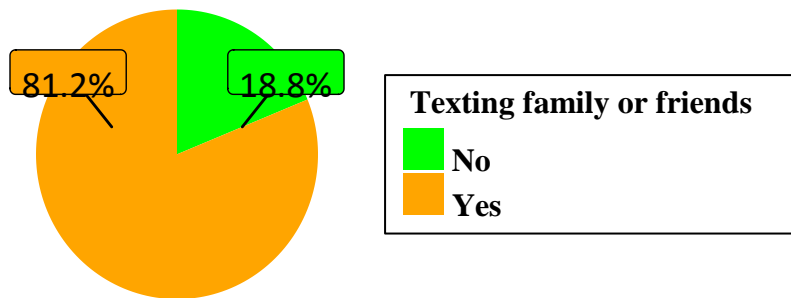
Graph no. 27 Talking with family or friends:



Among the sample 386 (75.7%) of the students were using the smartphone for talking with family and friends.

Table no. 28 Texting family or friends		
Texting family or friends	N	Percentage
Yes	414	81.2%
No	96	18.8%

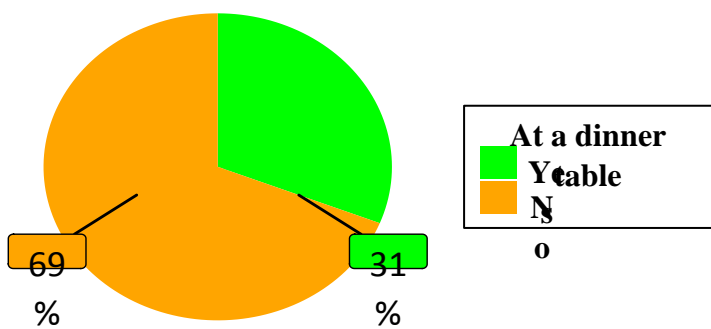
Graph no. 28 Texting family or friends:



Among the sample 414 (81.2%) of the students were using the smartphone for texting family or friends.

Table no. 29 At a dinner table		
At a dinner table	N	Percentage
Yes	158	31%
No	352	69%

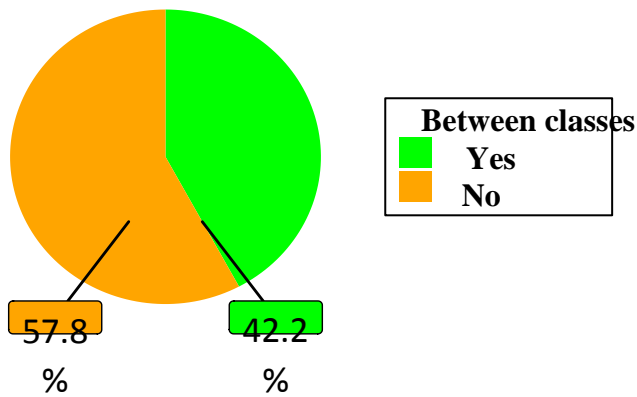
Graph no. 29 At a dinner table:



Among the sample 158 (31%) of the students were using the smartphone at the dinner table.

Table no. 30 Between classes		
Between classes	N	Percentage
Yes	215	42.2%
No	295	57.8%

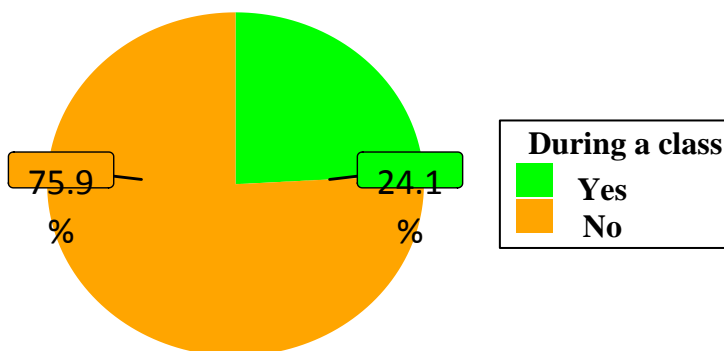
Graph no. 30 Between classes:



Among the sample 215 (42.2%) of the students were using the smartphone between the classes.

Table no. 31 During a class		
During a class	N	Percentage
Yes	123	24.1%
No	387	75.9%

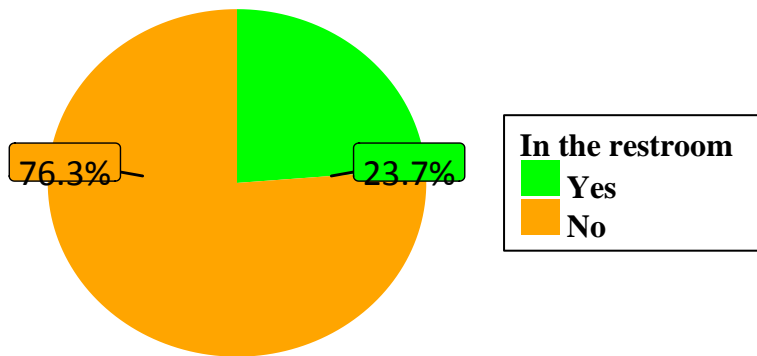
Graph no. 31 During a class:



Among the sample 123 (24.1%) of the students were using the smartphone during the class.

Table no. 32 In the restroom		
In the restroom	N	Percentage
Yes	121	23.7%
No	389	76.3%

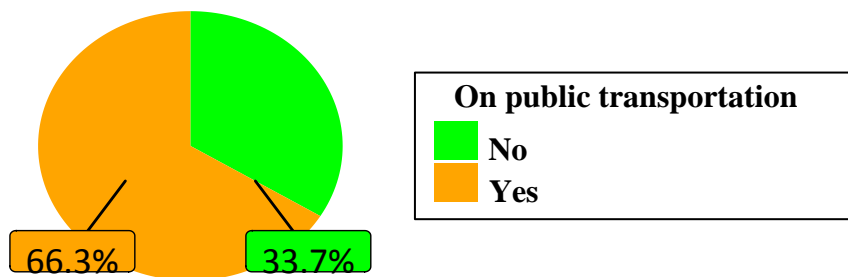
Graph no. 32 In the restroom:



Among the sample 121 (23.7%) of the students were using the smartphone in the restroom.

Table no. 33 On Public Transportation		
On public transportation	N	Percentage
Yes	338	66.3%
No	172	33.7%

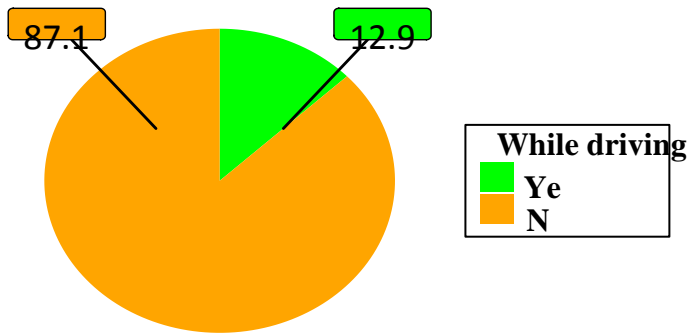
Graph no. 33 On public transportation



Among the sample 338 (66.3%) of the students were using the smartphone on public transportation.

Table no. 34 While Driving		
While driving	N	Percentage
Yes	66	12.9%
No	444	87.1%

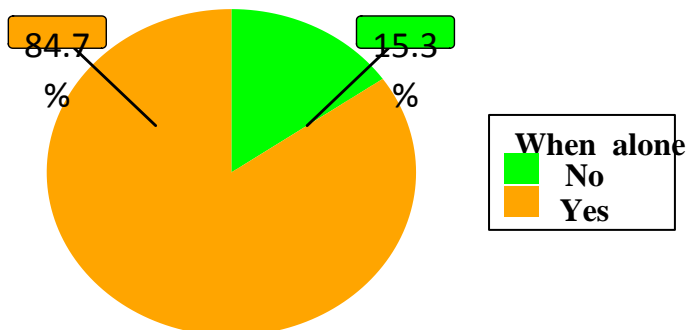
Graph no. 34 While Driving:



Among the sample 66 (12.9%) of the students were using the smartphone while driving.

Table no. 35 When Alone		
When alone	N	Percentage
Yes	432	84.7%
No	78	15.3%

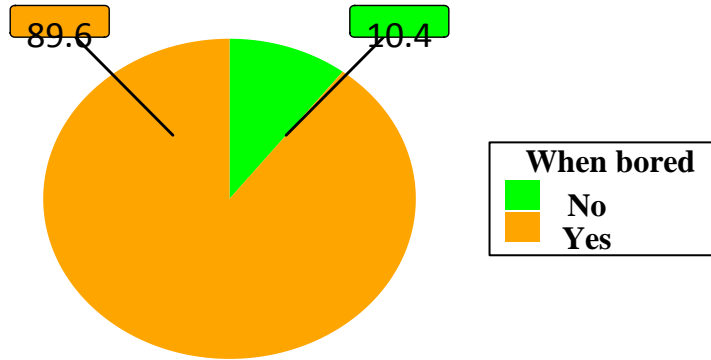
Graph no. 35 When Alone:



Among the sample 432 (84.7%) of the students were using the smartphone when they are alone.

Table no. 36 When Bored		
When bored	N	Percentage
Yes	457	89.6%
No	53	10.4%

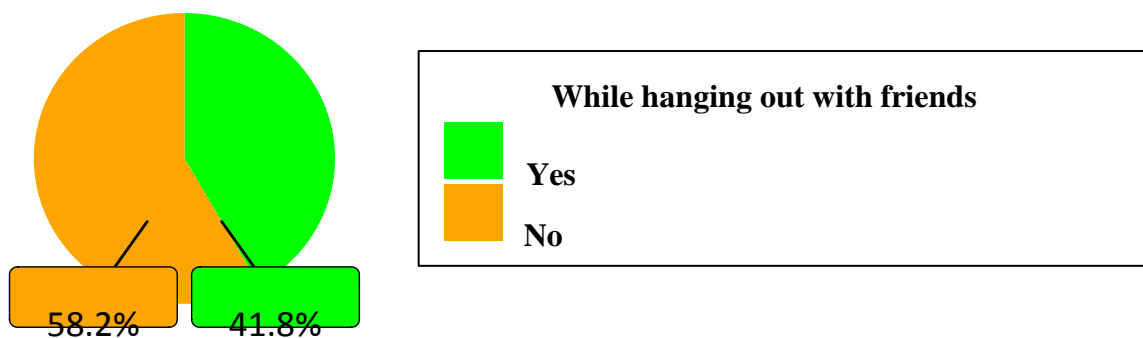
Graph no. 36 When Bored:



Among the sample 457 (89.6%) of the students were using the smartphone when they are bored.

Table no. 37 While hanging out with friends		
While hanging out with friends	N	Percentage
Yes	213	41.8%
No	297	58.2%

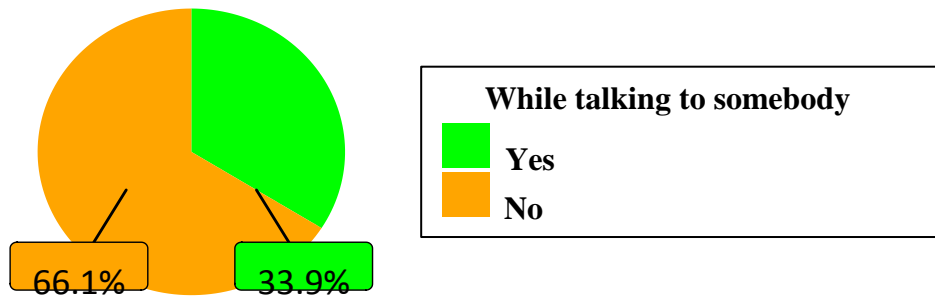
Graph no. 37 While hanging out with friends:



In this sample study 213 (41.8%) of the students were using the smartphone while hanging out with friends.

Table no. 38 While Talking to Somebody		
While talking to somebody	N	Percentage
Yes	173	33.9%
No	337	66.1%

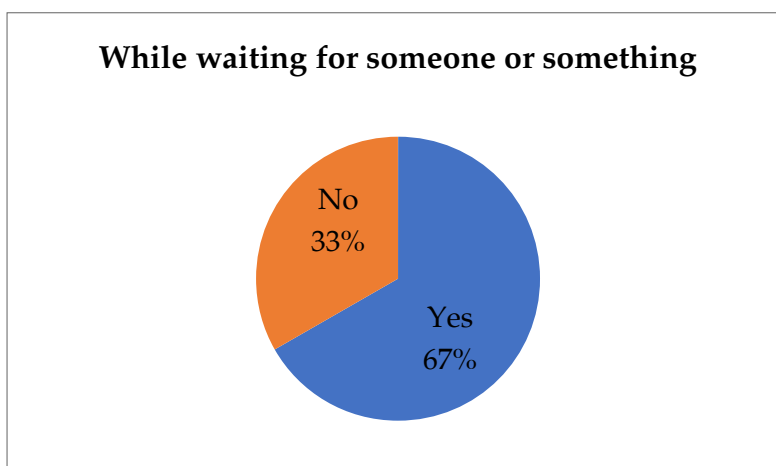
Graph no. 38 While Talking to Somebody:



In this sample study 173 (33.9%) of the students were using the smartphone while talking to somebody.

Table no. 39 While Waiting for Someone or something		
While waiting for someone or something	N	Percentage
Yes	340	67%
No	170	33%

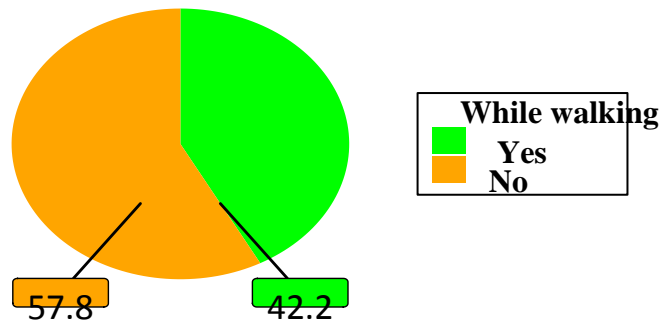
Graph no. 39 While Waiting for Someone or something :



In this sample study 340 (67%) of the students were using the smartphone while waiting for someone or something.

Table no. 40 While Walking		
While walking	N	Percentage
Yes	215	42.2%
No	295	57.8%

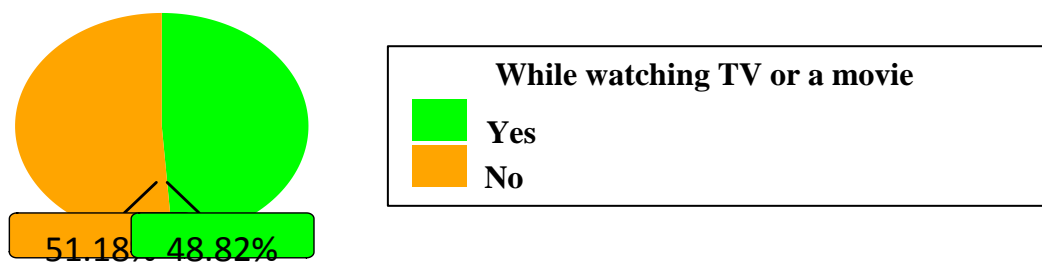
Graph no. 40 While Walking:



In this sample study 215 (42.2%) of the students were using the smartphone while walking.

Table no. 41 While Watching TV or a movie		
While watching TV or a movie	N	Percentage
Yes	249	48.8%
No	261	51.2%

Graph no. 41 While Watching TV or a movie :



In this sample study 249 (48.8%) of the students were using the smartphone while watching TV or a movie.

7.1 RESULTS OF PRIMARY OUTCOMES:

Correlations

		SocialInfo rmination	SocialSk ill	SocialAwaren ess	SocialIntellige nce	SocialMediaAdd iction	GameAddicti on	SmartAddict ion	Happine ss
SocialInformation	Pearson Correlation	1	.135**	-.315**	.549**	.048	-.078	-.052	-.026
	Sig. (2-tailed)		.002	.000	.000	.279	.080	.243	.560
	N	510	510	510	510	510	510	510	510
SocialSkill	Pearson Correlation	.135**	1	.143**	.686**	-.006	-.029	-.003	.087*
	Sig. (2-tailed)	.002		.001	.000	.897	.518	.940	.048
	N	510	510	510	510	510	510	510	510
SocialAwareness	Pearson Correlation	-.315**	.143**	1	.467**	-.086	-.033	-.070	.034
	Sig. (2-tailed)	.000	.001		.000	.053	.455	.112	.444
	N	510	510	510	510	510	510	510	510
SocialIntelligence	Pearson Correlation	.549**	.686**	.467**	1	-.023	-.087	-.079	.048
	Sig. (2-tailed)	.000	.000	.000		.612	.050	.074	.282
	N	510	510	510	510	510	510	510	510
SocialMediaAddi ction	Pearson Correlation	.048	-.006	-.086	-.023	1	.284**	.440**	-.181**
	Sig. (2-tailed)	.279	.897	.053	.612		.000	.000	.000
	N	510	510	510	510	510	510	510	510
GameAddiction	Pearson Correlation	-.078	-.029	-.033	-.087	.284**	1	.289**	-.155**
	Sig. (2-tailed)	.080	.518	.455	.050	.000		.000	.000
	N	510	510	510	510	510	510	510	510

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SmartAddiction	Pearson Correlation	-0.052	-.003	-.070	-.079	.440**	.289**	1	-.129**
	Sig. (2-tailed)	.243	.940	.112	.074	.000	.000		.003
	N	510	510	510	510	510	510	510	510
Happiness	Pearson Correlation	-.026	.087*	.034	.048	-.181**	-.155**	-.129**	1
	Sig. (2-tailed)	.560	.048	.444	.282	.000	.000	.003	
	N	510	510	510	510	510	510	510	510

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

CHAPTER 8

DISCUSSION

8. DISCUSSION

Observing the explosive growth in the smartphone use among the graduate students, it is important to study smart phone addiction in this subset of population. College students are particularly vulnerable group on the account of the time they spend on the smartphone to use social media and Gaming.

In the present study, almost all the graduate students surveyed had smartphone. The survey was conducted in 3 colleges in Bangalore. The sample size was 510 participants.

Earlier studies by Jeong et al., shows there is a strong negative relationship on social intelligence and smart phone addiction and social media sites is a strong predictor of smartphone addiction. Those who use smartphones for Social Networking, games and entertainment were more likely to be addicted to smartphones, where as those who use smartphone for study related purposes were not addicted. Their study show Social Networking negatively correlated to Smart phone addiction.^{lxvi} (Jeong et. Al.,2015)

In another study done by Bian and Leung observed that people who are shy to interact with people and are not interested to socialize feel lonely and more likely to be addicted to smartphone. Data were gathered from a sample of 414 university students using online survey in Mainland China. Their study found a significant links between smartphone addiction and smartphone usage, loneliness, and shyness. Their study presents clear evidence that the use of smartphones for different purposes (especially for information seeking, sociability, and utility) and the exhibition of different addiction symptoms (such as preoccupation and feeling anxious and lost) significantly impacted social capital building.^{lxvii}(Bian & Leung, 2015)

In the previous study done by Sudraba & Kristine , Drug and alcohol addiction negatively correlates with Social intelligence . The sample includes 241 respondents were questioned Using the Social Intelligence Test, The results show the difficulties in adequately and critically assessing their own aptitudes of social intelligence.

^{lxviii}(sudraba & Kristine ,2011)

Among our young smartphone users, Social Information is strongly negative correlated with Game Addiction, moderately negative correlated with Smart Phone Addiction and mildly negative correlated with Happiness. Social Information is positively correlated with Social Skill, Social Intelligence and Social Media Addiction. Social Skill is strongly positive correlated with Social intelligence and Happiness. It is negatively correlated with Social Media Addiction, Game addiction and smartphone addiction. Social Awareness is strongly negative correlated with Social Media Addiction and Smart phone addiction. It is moderately positive correlated with Social Intelligence. It is mildly correlated with Happiness. Social Intelligence is strongly negative correlated with Smart Phone Addiction and Game Addiction and mildly negative correlated with Social Media Addiction and moderately positive correlated Happiness. Social Media Addiction is negatively correlated with Happiness and positively correlated with Game Addiction and Smart Phone Addiction. Game Addiction is negatively correlated with Happiness and is positively correlated with Smart Phone Addiction

Smart Phone Addiction is negatively correlated with happiness.

Both of these studies are related to my study where Social Intelligence, Social Information, Social skill are negatively correlated to smartphone addiction. That

means people who use smartphone social networking are more addicted to smartphones.

Mechanism

Social information is negatively correlated with Game Addiction, Smart phone addiction and happiness- when a person is more addicted to game and smart phone his ability understand the information about his surroundings goes down which makes him socially isolated.

Smart phone addiction is negatively correlated with happiness. More and more addiction leads to less and less happiness. The person may forget about happiness.

Social skill is positively correlated with social intelligence- as the person is more involved with people and in social gathering, his ability to interact with people increases.

Social awareness is negatively correlated with Social media addiction, Game addiction and smart phone addiction- when a person is addicted to game and social networking his awareness of where he is, who is around him and what he is supposed to do. He becomes more isolated and lonely.

Social intelligence is positively correlated with social information and social awareness- as the person indulges himself in social actives rather than being dependent on his mobile phone, his social information and social awareness will improve.

Happiness is positively correlated with social skill, social intelligence and social awareness. The more the person is happy he becomes more socially involved. It can

be used the other way also. If a person is more socially responsible he comes happier.

CHAPTER 9

CONCLUSION

9. CONCLUSION:

In this study we have observed that, Social Information is negatively correlated with Game Addiction, moderately negative correlated with Smart Phone Addiction and mildly negative correlated with Happiness. Social Information is positively correlated with Social Skill, Social Intelligence and Social Media Addiction. Social Skill is strongly positive correlated with Social intelligence and Happiness. Social Skill is negatively correlated with Social Media Addiction, Game addiction and smartphone addiction. Social Awareness is strongly negative correlated with Social Media Addiction and Smart phone addiction. It is moderately positive correlated with Social Intelligence. It is mildly correlated with Happiness. Social Intelligence is strongly negative correlated with Smart Phone Addiction and Game Addiction and mildly negative correlated with Social Media Addiction and moderately positive correlated Happiness. Social Media Addiction is negatively correlated with Happiness and positively correlated with Game Addiction and Smart Phone Addiction. Game Addiction is negatively correlated with Happiness and is positively correlated with Smart Phone Addiction. Smart Phone Addiction is negatively correlated with happiness. There is a strong negative relationship on social intelligence and smart phone addiction.

10. APPRAISAL

10.1 STRENGTH:

- Study is focused on specific age group which vulnerable for mobile addiction
- Different domains of psychology were assessed
- Sample size was adequate
- Assessments tools used were easy to understand

10.2 LIMITATION:

- Even though this study based on more than 500 sample sizes but it needs more sample size for getting better result.
- No objective assessments
- Information about other addiction was not considered
- Survey is limited to small part of Bangalore.

10.3 SCOPE:

- This study was helping for researcher to take yoga as intervention for future research.
- It is necessary to continue to study the conditions that faster this dependence, to develop prevention and treatment programs.
- The study should use larger sample size.
- It is also suggested that this study be conducted considering various factors such as different age ranges and educational levels.

- Potential causes of mobile addiction should also be assessed.

APPENDIX

Appendix (1) ASSESSMENT OF NEEDS

Biographic Data Sheet

1. Date & Time:
2. Name:
3. Age:
4. Married/ Single:
5. Educational qualification:
6. Occupation:
7. Phone No:
8. Email.id

Appendix (2) Section I: Demographics

1. Age : _____ Gender : M F Education : _____
2. Marital Status : _____
Socio-economic Status : Low Medium High
3. Residential areas : Urban Sub-urban Rural

Section II: Smartphone Use

4. For how long have you been using a smartphone?

	0 – 30min	30min – 1hr	1 - 1.5hr	1.5 – 2hr	2 - 2.5hr	2.5 – 3hr	3 - 3.5hr	3.5 – 4hr	4hr+
Shopping / buying items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E-commerce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Booking events / trips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blogging/ Contributing to websites/ Discussion boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Education and training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Approximately how many apps do you have on your smartphone? _____
 ___ Apps
 App ?

11. For which of the following purposes do you usually use your smartphone?
 (Please select all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> Checking email | <input type="checkbox"/> Looking information up on the Internet |
| <input type="checkbox"/> Checking lecture notes | <input type="checkbox"/> Listening to music |
| <input type="checkbox"/> Checking social media | <input type="checkbox"/> Scheduling meetings and events |
| <input type="checkbox"/> Gaming | <input type="checkbox"/> Talking with family or friends |
| <input type="checkbox"/> Getting news | <input type="checkbox"/> Texting family or friends |
| <input type="checkbox"/> Killing time | <input type="checkbox"/> Other (please specify) |

12. In which of the following contexts would you use your smartphone? (Please select all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> At a dinner table | <input type="checkbox"/> When I'm bored |
| <input type="checkbox"/> Between classes | <input type="checkbox"/> While hanging out with friends |
| <input type="checkbox"/> During a class | <input type="checkbox"/> While talking to somebody |
| <input type="checkbox"/> In the restroom | <input type="checkbox"/> While waiting for someone or something |
| <input type="checkbox"/> On public transportation | <input type="checkbox"/> While walking |

- While driving
- When I'm alone
- While watching TV or a movie
- Other (please specify):

Smartphone Addiction 10 SA01~SA10

	13. Please indicate how much you agree or disagree with each statement in relation to your smartphone use	Strongly disagree	Disagree	Weakly disagree	Weakly agree	Agree	Strongly Agree
SA01	Missing planned work due to smartphone use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA02	Having a hard time concentrating in class, while doing assignments, or while working due to smartphone use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA03	Feeling pain in the wrists or at the back of the neck while using a smartphone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA04	Won't be able to stand not having a smartphone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA05	Feeling impatient and fretful when I am not holding my smartphone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA06	Having my smartphone in my mind even when I am not using it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA07	I will never give up using my smartphone even when my daily life is already greatly affected by it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA08	Constantly checking my smartphone so as not to miss conversations between other people on Twitter or Facebook.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA09	Using my smartphone longer than I had intended.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SA10	The people around me tell me that I use my smartphone too much.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Kwon et al., 2013)

14. How do you feel yourself addicted to your smartphone?

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Non-addictive	<input type="checkbox"/>	Slightly-addictive	<input type="checkbox"/>	Moderately-addictive	<input type="checkbox"/>
Very-addictive	<input type="checkbox"/>	Extremely-addictive	<input type="checkbox"/>		

Social Intelligence SI01~SI21

For each item, indicate how well it describes you on a scale from 1 (describes me extremely poorly) to 7 (describes me extremely well):								
		Describes me extremely poorly						Describes me extremely Well
		1	2	3	4	5	6	7
SI01	I can predict other peoples' behavior.							
SI02	I often feel that it is difficult to understand others' choices.							
SI03	I know how my actions will make others feel.							
SI04	I often feel uncertain around new people who I don't know.							
SI05	People often surprise me with the things they do.							
SI06	I understand other peoples' feelings.							
SI07	I fit in easily in social situations.							
SI08	Other people become angry with me without me being able to explain why.							
SI09	I understand others' wishes.							

SI10	I am good at entering new situations and meeting people for the first time.							
SI11	It seems as though people are often angry or irritated with me when I say what I think.							
SI12	I have a hard time getting along with other people.							
SI13	I find people unpredictable.							
SI14	I can often understand what others are trying to accomplish without the need for them to say anything.							
SI15	It takes a long time for me to get to know others well.							
SI16	I have often hurt others without realizing it.							
SI17	I can predict how others will react to my behavior.							
SI18	I am good at getting on good terms with new people.							
SI19	I can often understand what others really mean through their expression, body language, etc.							
SI20	I frequently have problems finding good conversation topics.							
SI21	I am often surprised by others' reactions to what I do.							

(Silvera, Martinussen, & Dahl, 2001)

BSMAS (Behavioral Social Media Addiction Scale)

Instruction: Below you find some questions about your relationship to and use of social media (e.g., WhatsApp, SnapChat, Facebook, Twitter, Instagram, Google+, Pinterest, or forums and weblogs etc). Choose the response alternative for each question that best describes you.

How often during the last year have you---		Very rarely	Rarely	Sometimes	Often	Very
1	---Spent a lot of time thinking about social media or planned use of social media?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	---Felt an urge to use social media more and more?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Used social media to forget about personal problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	---Tried to cut down on the use of social media without success?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	---Become restless or troubled if you have been prohibited from using social media?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	---Used social media so much that it has had a negative impact on your job studies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GAS (Game Addiction Scale)

Instruction: The following questions are about your experiences with video games during the last six months (NB! By video games means here different electronic games that are played on a computer, mobile phone, tablet or on different game consoles such as Playstation, PSP, Nintendo, Gameboy, Xbox and the like. Gambling, online poker and the like do not count as video games in this regard).,

How often during the last 6 months ---		Never	Rarely	Sometimes	Often	Very Often
1	---Did you think about playing a game all day long?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	---Did you spend increasing amounts of time on games?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	---Did you play games to forget about real	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	life?					
4	---Have others unsuccessfully tried to reduce your game use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	---Have you felt bad when you were unable to play?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	---Did you have fights with others (e.g. family, friends) over your time spent on games?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	---Have you neglected other important activities (e.g., school, work, sports) to play games?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NAS (Non Attachment Scale)

To help us understand your general approach to life and your views about yourself, others, and life in general, tell us the extent to **which** the following statements reflect your experiences **at this point in your life**. Select a number from 1 to 6 on the scale provided with each statement to rate the extent to which you agree with it.

Please answer according to what **really reflects** your experience rather than what you think your experience should be.

1	2	3	4	5	6
Disagree Strongly	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Strongly

1	I can let go of regrets and feelings of dissatisfaction about the past.	
2	I can enjoy pleasant experiences without needing them to last forever.	
3	I view the problems that enter my life as things/issues to work on rather than reasons for becoming disheartened or demoralized.	
4	I can enjoy my family and friends without feeling I need to hang on to them.	
5	I can take joy in others achievements without feeling envious.	
6	I do not get "hung up" on wanting an "ideal" or "perfect" life.	
7	When pleasant experiences end, I am fine moving on to what comes next.	

A number of statements that people have made to describe how they feel are given below. Please read each one and tick the box which best describes how frequently you felt that way in the past seven days, including today. Some statements describe positive feelings and some describe negative feelings. You may have experienced both positive and negative feelings at different times during the past seven days.

- | | | | | |
|-------------------------------------|-------|--------|------------|-------|
| 1. I felt dissatisfied with my life | Never | Rarely | Some-times | Often |
| 2. I felt happy | Never | Rarely | Some-times | Often |
| 3. I felt cheerless | Never | Rarely | Some-times | Often |
| 4. I felt pleased with the way I am | Never | Rarely | Some-times | Often |
| 5. I felt that life was enjoyable | Never | Rarely | Some-times | Often |
| 6. I felt that life was meaningless | Never | Rarely | Some-times | Often |

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Reference Letter from College



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November 28, 2017
Date

This is to certify that **Smt.Shailaja Komar**, who is pursuing her PG course in Yoga Therapy, at SVYASA, Jigani came to our college and distributed questionnaires pertaining to "Smart Phone Addiction in the younger generation" in our college, Vijaya College, Jayanagar.

These questionnaires were distributed among UG students and the same were collected back after a couple of days.

D. R. Sudh
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empowering through education