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INTERNET AND MOBILE PHONE ADDICTION DECREASES THE CAPACITY OF SHORT TERM MEMORY AMONG YOUTHS

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ABSTRACT

The main aim of the present research is to study the relationship between the Internet Addiction, Mobile Phone Addiction and Short Term Memory among College students. It was hypothesized that (i) The Internet Addiction and Mobile Phone Addiction will be positively correlated with each other; (ii) The Internet Addiction, Mobile Phone addiction, and the capacity of Short Term Memory will be negatively correlated with each other & (iii) There will be no significant difference between male and female students among Internet Addiction, Mobile Phone Addiction, and Short Term Memory. The Sample (n = 40) for this study consisted college going students in Sangli and Jaysingpur City. Data was collected through Internet Addiction Scale, Mobile Phone Addiction Scale, and Short Term Memory scale. Obtained data analyzed by Pearson Product Moment Correlation Coefficient (PMCC)and Student 't' test. The Result revealed, (i) The Internet Addiction and Mobile Phone Addiction positively correlated to each other, (ii) The Internet Addiction, Mobile Phone Addiction and Short Term Memory strongly and negatively correlated to each other and (iii) There were no significant difference existed between male and female students on Internet Addiction, Mobile Phone Addiction and Short Term Memory.

Key Words : Internet Addiction, Mobile Phone Addiction, Short Term Memory

I. INTRODUCTION

INTERNET ADDICTION

In the21stcentury, every person does not have such a time for work anything. His life is faster than his past. Every person trying to stable on this competitive situation. The internet is the most part of human life in recent days. Every person had got each and every information in within aminute and one clicking. The Internet is the most important part of human life. But not only internet but also themobile phone is part of his life. Every person had got a mobile phone and he uses the every time. The mobile phone is the second life of every person in the world. But lots of use mobile phones and always internet it affects on human cognitive process mostly human memory process. Very few researches conducted on internet addiction, mobile phone addiction and short-term memory in the Indian context. So researcher thinks about this fact and tried to find out the relation between internet addiction, mobile phone addiction and short-term memory among college going students.

Very few researches conducted on internet addiction and mobile phone addiction with short term memory. The different kinds of variables affects the short term memory like transportation, alcohol and

stress noise. Kamble Vikas S. (2014)studied, 'The Effect of Transportation Noise on Retrieval of Information from Short Term Memory'. Researcher found that the exposure to transportation noise created detrimental effects on short-term memory among school and college students. In recent era the internet use for the purpose of theacademic platform, it is sources of information, a good channel for communication and finding the support studies for research. The Internet is a worldwide information source of easily reached via computers and rapid databases by every person. Around 40% of theworld population uses the internet every day. In India there are 151,598,994 peoples are using the internet and in theworld India's rank of uses internet is 3rd. According to Musch (2011), Hecht (2001), Alkan & Canbay (2011), from the 1960s has recently reached a new aspect including all activities such as research, education, social communication, politics, entertainment and trade which concern all people. The Internet is the fastest developing electric technology in the world history (Musch, 2011; Hecht, 2001; Alkan & Canbay, 2011)

Addiction is defined as person's or being's feeling of necessity for something (like another person, substance, the internet, sex, etc.) in order to sustain her/his existence and continue her/his way of existence as she/he desires (West, 2005). DSM-IV codes contain the phrase "very strong need or compulsion towards taking a substance" for addiction (APA, 1994). The concept of internet addiction was first developed by Goldberg (1996) and by following DSM-IV addiction criteria it was defined as "very strong desire or urge for using the internet" (Aboujaoude et al., 2006; Block, 2008' Korkeila et al., 2009).

The main difference between normal internet usage and addicted/problematic internet usage is normal users of internet use this technology for their daily needs and/or other necessities within reason they can control themselves while using it, and they show normal behaviors when they don't have access to the internet (DiNicola, 2004' Young, 1998). On the other hand, problematic or pathological users of internet are in excessive mental activity (thinking, continuously about the internet, dreaming about the activities done on the internet, thinking about the next planned activity on the internet etc.) about internet (Greenfield, 1999; Koc, 2011; Young, 1998), feel the necessity for using the internet in an increased proportion in order to get satisfaction they desire (Lee and Shin, 2004), fail in their attempts to control, reduce or give up their internet usage in decreased or completely cut off(Petersen et al., 2009).

The Internet is being widely used all around the world. The numbers of users are increasing day by day. The usage of internet and other social networks has increased by 230 percent in the USA since 2007 (Diana, 2010). Globally there is an 82 percent increase in 2009 with an average of 5 and half hours spend on the internet and other social networks (Nielsen, 2010). This wide usage of theinternet made people addict to it. Internet addiction is an impulse control disorder which does not involve intoxication (Young, 1999). It is a psychological dependence on the internet, regardless of the activity once logged in (Kandell, 1998).

Internet addiction leads to different social, psychological and physical disorders. The people addicted to internet face physical side effects like sleep disturbance, back pain, eye strain etc. Such persons also experience family, academic and social problems (ASAM, 2012).

MOBILE PHONE ADDICTION

The mobile phone is among the most prominent kinds of information and communications technology (ICT) and is probably also the one that has shown the most spectacular development during the past few years with regard to technological innovations, social impact, and general use by the majority of the population.

Mobile phone use has dramatically increased in recent years, so too have the reports of mobile phone addiction. However, while there are many studies supporting the idea of media addictions to television

and the Internet, research on mobile phone addiction hardly seems to exist. The criteria used to determine media addiction include a "craving or compulsion, loss of control, and persistence in the behavior despite accruing adverse consequences" (Shaffer, Hall & Bilt, 1999).

Ram and Jung (1990) note that measure of mobile phone usage results in three independent axes viz., (a) Usage intensity : which refers to how often the product is used regardless of the different applications for which the product is used, (b) Usage breadth: referring to the number of partners to whom calls are directed and from whom calls are received and (c) Usage variety : measuring the different applications for which a product is used or the different situations in which a product is used, regardless of how frequently it is used.

There arefew researches that focus on the psychological and behavioral attributes of mobile phone users. In their Longitudinal study of 19 new mobile phone users, Palen, Salzman and Youngs (2001) have found that subjects typically start with rather narrow conceptions of why they need a mobile, but then considerably enlarge the range of uses with evolving time. There is an increase in "grooming calls" which have primarily (or even exclusively) a non-instrumental, socio-emotional nearness, compassion sympathy, and love.

SHORT TERM MEMORY

Many cognitive psychologists regard memory as on the most basic cognitive process. We rely on memory whenever we think back to a personal event when we remember. Memory is also obviously involved when we remember information about historical events. The memory defined as, "Memory is the cognitive process of Encoding, Storing, and Retrieving information."

A hypothetical storage system characterized by duration estimated at about 12 seconds (which can be extended by rehearsal), by a capacity estimated at about 5 to 9 items, and by theaccurate recall.

Short-term memory reflects our conscious awareness. We rely on STM as we carry out everyday activities like remembering a phone number long enough to call it, remembering the play signaled by the third-base coach before taking a swing or thinking about our next response in a conversation.

As its name implies, our short-term memory allows us to retain information for abrief period of time. How much information can STM hold? Researchers have devised a number of precise procedures for determining STM capacity (see Focus on Methods). These procedures have yielded data showing that a typical adult's memory span is approximately 7 (between 5 and 9) unrelated items (Miller, 1956). STM capacity typically increases as people age until it reaches amaximum in young adulthood (Dempster, 1981; Huttenlocher& Burke, 1976)and starts to decline in old age (Kail&Salthouse, 1994).The typical way of measuring STM capacity, also called memory span, is to present a sequence of numbers, letters, words aloud to a person at the rate of about 1 second per item.

The basic findings concerning memory capacity go back to the research of Ebbinghaus (1885/1913), who sought to identify basic memory processes that are independent of people's past knowledge. To do this, Ebbinghaus used nonsense syllables (formed by inserting a vowel between two consonants) as the items to be remembered and determined how many runs through a list of nonsense syllables it would take to recite a list perfectly.

II. AIM OF THE STUDY

To study the correlation between the internet addiction, mobile phone addiction and short-term memory among college students.

III. OBJECTIVES OF THE STUDY

1. To assess the relationship between the internet addiction, mobile phone addiction, and short

term memory.

2. To find out the difference between male and female students on internet addiction, mobile phone addiction, and short term memory.

IV. HYPOTHESES OF THE STUDY

1. The Internet Addiction and Mobile Phone Addiction will be positively correlated with each other.
2. The Internet Addiction, Mobile Phone addiction, and Short Term Memory will be negatively correlated with each other.
3. There will be no significant difference between male and female students on Internet Addiction, Mobile Phone Addiction, and Short Term Memory.

V. METHODOLOGY

Sample:

The sample was selected from the colleges (n = 40) from Sangli and Jaysingpur city by randomsampling method. The age of the participated students was ranging from 19 to 24 years. The sex ratio was kept as 1:1.

Psychological Tools:

1) Internet Addiction Scale :

This scale constructed by Dr. Kimberly Young. This scale is in the English Language. The Scale consists of 20 multiple choice questions, like five point scale with response option ranging from strongly agree to strongly disagree. The reliability and validity value of this scale is highly significant.

2) Mobile Phone Addiction Scale :

This scale developed by Dr. A. Velayudhan and S. Srividya. This scale consists of 37 multiple choice items, like five point scale with response option ranging from strongly agree to strongly disagree. The reliability coefficient value of this scale has split half method 0.75 and the validity coefficient value of this scale is significant.

3). Short Term Memory:

To measure a short-term memory, the scale constructed by Dr. Bina Srivastva was used in the study. In this scale,subjectwere orally presented the word trigrams and afterwards the subjects have to recall the nonsense syllabus (YUX) in an intervals of 3, 6, 9, 12, 15 and 18 seconds. In-between the intervals to interference the revision subjects were asked to count backward in three from three digit random numbers.

VI. TEST ADMINISTRATION

The administration of tests was done in two different settings. As thefirst step getting permission from the various colleges located Sangli and Jaysingpur city. After that, researcher personally, meet with respondents and informhed them how to solve this psychological tools after the established agood rapport with students. Then clear all the doubts and started the test administration.

VII. DESIGN OF THE STUDY

The correlational design was employed for the present investigation. The present study was carried out to find out the correlation between internet addiction, mobile phone addiction and short term memory on college going students.

VIII. RESULTS AND INTERPRETATION

Table 01

Showing the correlation between Internet addiction, Mobile phone addiction and Short term memory among college going students

Variable	Internet Addiction	Mobile Phone Addiction	Short Term Memory
Internet Addiction	1	0.75**	-0.48**
Mobile Phone Addiction	1	1	-0.60**
Short Term Memory			1

** = 0.01, * = 0.05 significant level

Table 01 shows the relationship between internet addiction, mobile phone addiction and short-term memory among college going students. The correlation value between internet addiction and mobile phone addiction is 0.75 which is significant on 0.01 significant level ($r = 0.75$, $p<0.01$). The correlation value between internet addiction and short term memory is -0.48 which is significant on 0.01 significant level ($r = -0.48$, $p<0.01$) and correlation value between mobile phone addiction and short term memory is -0.60 ($r = -0.60$, $p<0.01$). That means internet addiction and mobile phone addiction is significantly and positively correlated with each other. Internet addiction and short term memory significantly and negatively correlated with each other and mobile phone addiction and short term memory significantly and negatively correlated with each other. It is clear that hypothesis no. 1 and 2 are accepted.

Table 2

Showing the difference between male and female students about internet addiction, mobile phone addiction, and short term memory

Variable	Group	N	Mean	SD	df	't' value	Significant level
Internet Addiction	Male	20	28.85	13.85	38	0.90	N.S.
	Female	20	25.25	11.28	38		
Mobile Phone Addiction	Male	20	104.50	27.92	38	0.54	N.S.
	Female	20	100.45	18.27	38		
Short Term Memory	Male	20	46.45	15.16	38	0.93	N.S.
	Female	20	50.20	9.65	38		

Table 2 shows the difference between male and female college going students about internet addiction, mobile phone addiction, and short term memory. About internet addiction, the mean value of male students is 28.85 with SD 13.85 and the mean value of female students is 25.25 with SD 11.28. The obtained 't' value is 0.90 which is not significant even 0.05 level. About mobile phone addiction, the mean value of male students is 104.50 with SD 27.92 and the mean value of female students is 100.45 with SD 18.27. The obtained 't' value is 0.54 which is not significant even 0.05 level. About short term memory, the mean value of male students is 46.45 with SD 15.16 and the mean value of female students is 50.20 with SD 9.65. The obtained 't' value is 0.93 which is not significant even 0.05 level. That means all these variables do not differ between male and female college going students. It is clear that hypothesis no. 3 was accepted.

IX. CONCLUSIONS

1. The internet addiction and mobile phone addiction is significantly and positively correlated with each other. Internet addiction and short term memory significantly and negatively

correlated with each other and mobile phone addiction and short term memory significantly and negatively correlated with each other.

2. The internet addiction, mobile phone addiction, and short term memory are not differing between male and female college going students.

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