

ORIGINAL RESEARCH PAPER

Psychology

A COMPARATIVE STUDY OF NON-CHEMICAL ADDICTION AMONG YOUTHS

KEY WORDS: Non-chemical Addiction, Mobile Phones, Youths.

Dr. G S Venumadhava

Coordinator and Assistant Professor Department of Criminology Karnataka University Dhawad.

Dr. Vishalakshi Honnakatti*

Assistant Professor of Psychology. Govt. First Grade College for Women and P. G. Study Center Bailhongal.591102.*Corresponding Author

The Mobile phone is one of the most popular and useful gadget. Though there are a few disadvantages of mobiles, we cannot deny the usefulness and necessity of mobile phones in day to day life. Every coin has two faces. Mobiles have two sides like a coin one is positive and another one is negative side. Mobile phone has made a remarkable change in the development of civilization. But Scientists are continuously warning that excessive use of mobile can cause brain cancer, disturbed sleep, psychological, cognitive problems and harmful for mental growth of children. And excessive use of mobile is considered as addition, some researchers defined it as "non-chemical addition" and non-substance addiction.

The primary objective and aim of the present study was to investigate which mobile activities are associated with non-chemical addiction. The research has studied and comparison made among male/female, rural/ urban users and college/university students.

Findings revealed that mobile activities such as using whattsapp, face book, texting, chatting, calling and use of YouTube are significantly non-chemical addiction as well as there is no significant gender difference. University students are more addicted than college students and urban youths are highly addicted than rural youths.

INTRODUCTION:

According to Shambare (2012), "Mobile-phone use is the biggest non-drug addiction of the 21st century". And many researchers and scientists considered this mobile addiction as non-substance addition also. Some people are addicted to alcohol, some are to drugs, and eating toothpaste, chalks, whitener, etc known as substance addition. But the very dangerous addition of this century is mobile addition. In this article the mobile addition is mentioned as non-chemical addiction.

Mobile phones have made a revolutionary change in field of communication. In earlier days people used to write letters or send telegrams to communicate. That took a lot of time. But with the invention of mobile phones, it has become very easy to communicate with the people. Now a day Mobile has become a basic need for everyone. So Mobile phones have completely changed the lives of humans. Mobiles have become widespread all over the world. With the invention of the mobile, the writing of letters has become a history. But mobile phones also play an antisocial role in society. It depends on the use of it.

Many Youths often spoil their valuable time by talking for long time in mobiles. They are found to talk with their friends for two or three hours at night. Different mobile operators often offer some mid-night free or low cost calls. Students mostly attracted with this and take this advantage kill their time. Hijackers, robbers, terrorists and different anti-social activists often commit crime by communicating through mobile phone.

Advantages of Mobile phones – Mainly mobile phones are used to make calls or send messages. But in modern days uses of mobile phones are not only limited to make calls or send messages. Mobile has many other functions that help for work. People can use GPS to track locations and browse the internet on their mobiles. On the other hand, some of the mobile phones have a high definition camera that is used to preserve the memories by taking stills. Now a day most of the many people use mobile for entertainment purpose. They not only use it to make calls or send SMS, but they also play online games, use the internet to browsing, listen to songs, watch movies etc. In fact, the whole world has become a small village of global village due to the invention of mobile. All mobile phones have the ability to voice and simple text messaging services. Their small size, relatively low cost, and many uses make these devices very valuable and every one depended on this small gadget.

Disadvantages of mobile phone – Is there any disadvantages of

mobile phone? Can there be any disadvantages of such a useful gadget? Yes, though mobiles have a lot of advantages, it has some disadvantages also. Mobile phones have many adverse effect on our society and personal health. Now a day its connection is easily accessible. As a result of that, some anti-social groups or criminals are using it to facilitate their anti-social tasks. It is very difficult to find out or track criminals who committed crime with using mobiles. Most of the school or colleges going students or teenagers and youths are seen addicted to mobile phones. Youths spend more time in browsing internet, watching movies, playing online games which are harmful for their academic development. The students or youths are greatly influenced by evil side of this. Instead of using the it for their benefits some students or youths are seen sending offensive messages, watching pornographic videos etc. after the repeated research made by some doctors and scientists the conclusion comes that excessive use of mobile phones or cell phones is harmful to health. It may cause migraine, loss of hearing or even brain tumor. Some youths live without one time food but they can't live without their mobile. That's why the mobile phone addition is nothing but non-chemical addiction.

Review of Literature:

According to Belk (1988), many students of college consider their mobile phones as an integral part of their life. They think it's important to extend them.

Present- day cell-phones are seen as critical in maintaining social relationships and conducting the more mundane exigencies of everyday life (Junco & Cole-Avent, 2008; Junco & Cotton, 2012). Research suggests that media use has become such a significant part of student life that it is "invisible" and students do not necessarily realize their level of dependence on and/or addiction to their cell-phones (Moeller, 2010).

As per the large scale study conducted on 2500 college students in US shows that students spend one hour 40 minutes daily on face book (Junco,2011). And, 60 percent of US college students admit that they may be addicted to their cell-phone (McAllister, 2011). Smart phone dependence is increasing and it co-insides the cell phones.

Sixty-seven percent of young adults 18 to 24 years of age own a Smart Phone compared to 53 percent of all adults.

56% of Internet users are browsing net through their mobiles instead of desk-top computer or laptops, and mobiles are quickly replacing the other electronic gadgets. And people prefer smart

www.worldwidejournals.com

phones. This figure has nearly doubled from only three years ago. Seventy-seven percent of 18- to 29-year-olds use their phone to access the Internet (PEW Internet: Mobile, 2012). Youths increasing reliance on mobile phones turning from habit to addiction. Although the concept of addiction has multiple definitions, traditionally it has been described as the repeated use of a substance despite the negative consequences suffered by the addicted individual (Alavi et al., 2012).

Recently this notion of addiction has generalized to behaviors like sex, gambling, eating, Internet and mobile phones.(Griffiths, 1995: & Piroq, 2012)

Any entity that can produce a pleasurable sensation has the potential of becoming addictive (Alavi et al., 2012). Similar to substance addiction, behavioral addiction is best understood as a habitual drive or compulsion to continue to repeat a behavior despite its negative impact on one's well-being (Roberts & Pirog, 2012). Any off repeated behavior that triggers "specific reward effects through biochemical processes in the body do have an addictive potential" (Alavi et al., 2012, p. 292). Loss of control over the behavior is an essential element of any addiction.

Griffiths (1999, 2000) sees technological addictions as a subset of behavioral addiction and defines them as "non-chemical (behavioral) addictions that involve human-machine interaction" (Griffiths, 2000, p. 211). As mentioned above this mobile addiction is a latest technological emerging addiction. As the cost of cell-phone use drops and the functionality of these devices expands, cell-phones have ensconced themselves into the everyday lives of consumers around the globe. Behavioral addictions, according to Griffiths (1995, 2000), feature what many consider to be the core components of addiction, namely: salience, euphoria (mood modification), tolerance, withdrawal symptoms, conflict, and relapse.

Based on research aimed at better understanding cell-phone addiction, Shambare et al. (2012) concluded that mobile phone use can be "dependency-forming, habitual, and addictive" (p. 577). Mobile addiction does not occurs overnight and like a most types of behavioral addiction, it happens by process. (Martin et,al, 2013) Addiction often begins with seemingly benign behavior (i.e., shopping, Internet and/or cell-phone use, etc.) that, via a variety of psychological, biophysical, and/or environment triggers, "can become harmful and morph into an addiction" (Grover et al., 2011.

Methodology:

Statement of the Problem:

To study the non-chemical addiction among youths.

Objectives:

- To Know the non-chemical addiction among Male and female Youths.
- 2. To understand the non-chemical addiction among College and university students or Youths.
- 3. To evaluate the non-chemical addiction among rural and urban Youths.
- 4. To analyze the different non-chemical addiction activities among Male and female Youths.

Hypothesis:

- There would be a significant difference between male and female non-chemical addiction.
- 2. There would be a significant difference between University and college students non-chemical addiction.
- 3. There would be significant difference between Rural and urban students non-chemical addiction.
- 4. There would be significant difference between male and female different activities of non-chemical addiction.

Sample:

Data for the present study was collected by self-report questionnaires. Respondents were sent a link to the anonymous survey via e-mail. Those who participated in the survey were college and University students' age from 19 to 23 years. Eighty of the respondents are male and 80 are female (N = 160). The students who participated in this study were students of the Criminology and Psychology department from Karnataka University, Dharwad and from Government degree college Bailhongal. Students were given one week to complete the questionnaire.

Sampling:

Purposive sampling technique used for the study. N-160 are who owns the Smartphone with internet connection and they are using since minimum 3 years.

Tools Used:

To measure Non-chemical addiction, used the newly created fouritem Manolis/Roberts Cell-Phone Addiction Scale (MRCPAS). Mentioned in the Appendix, the MRCPAS utilizes a seven-point, Likert-type response format and includes two items adapted and modified from an earlier cell-phone addiction scale (Su-Jeong, 2006) and two original items ("I spend more time than I should on my cell-phone" and "I found that I am spending more and more time on my cell-phone").

Nine single-items were utilized to gauge how much time respondents spend per day engaged in each of the mobile activities of interest in the study (one item per activity), including: calling, texting, e-mailing, playing games, reading books, using a clock, a Facebook, whatsapp and YouTube.

Inclusive in the study:

The following variables are included in the present research study. There are gender, level of education and area.

Exclusive in the study:

The following variables like age, caste, income and religion are not included in present study.

Limitation of research study:

- Samples were collected within Dharwad and Bailhongal.
- Present study limited to only Smartphone users.

Results and Discussion:

Table NO 1: Shows the mean, sd and t-values of male and female youths.

	Male	Female	
Mean	76.65	79.91	
SD	24,46	10.43	
't'- value	1.73@		

The mean and SD of male is 76.65 and 24.46 is lesser than the female i.e. 79.91 and 10.43 respectively. The calculated to value 1.73 is not significant. Therefore the formulated hypothesis that there would be significant difference in Non-chemical addiction between male and female is rejected. The scores clearly indicate both are addicted to mobiles.

Table NO 2: Shows the mean, sd and t-values of University and college students.

	University	college	
Mean	25.09	17.8	
SD	10.75	8.78	
't'- value	14.86**		

The mean and SD of University students 25.09 and 10.75 is higher than the college students 17.8 and 8.78 respectively. The calculated the value 14.86 is higher than table the value and significant at 0.01 level of significance. Therefore the formulated hypothesis that there would be significant difference between University and college students on-chemical addiction is accepted. And University students have high addiction than college students.

Table NO 3: Shows the mean, sd and t-values of Rural and Urban students.

	Rural Urban		
Mean	14.17	21.14	
SD	3.90	10.82	
't'- value	11.59**		

The rural students mean and SD is 14.17, 3.90 is lesser than the urban students 21.14, 10.82 respectively. The calculated'- value is 11.59 which is significant at 0.01 level of significance. Therefore the formulated hypothesis that there would be significant difference between rural and urban students non-chemical addiction is accepted. Urban students comparatively have higher addiction than rural students.

Table NO 4: Shows the Different mobile activities Addiction mean, sd and t-values of male and female youths.

Mobile	М	ale	Fen	nale	t-value
Activity	Mean	Sd	Mean	Sd	
Calls	28.2	7.31	34.25	7.22	7.47**
Texts	14.12	3.91	14.66	3.89	0.95@
E-mails	17.56	8.95	18.04	8.9	0.59
Whatsapp	30.82	8.67	31.46	9.06	1.03@
Facebook	22.99	10.56	27.13	10.55	5.57**
Reading Books	14.67	4.15	14.27	3.62	0.72@
Games	15.17	5.01	22.98	10.17	9.76**
Clock	20.47	11.25	21,88	10.33	1.24@
You tube	22.60	12.46	19.7	8.66	2.66**

** 0.01 Level of significance @- Not significant.

On the basis of above statistical analysis it's clear that both male and female addicted to mobiles, highest addiction is with whatsapp and second is with calling and then face book got third place. Among all 9 mobile activities some activities have significant differences and some are not. In the present study, women reported spending more on a mobile every day compared males significantly different from one another; these figures are considerably higher to understand the non-chemical addiction.

Conclusion:

The ever-increasing amount of time many people spend using technology and the technology can have effect on quality of life, the present study investigation of mobile addiction or Nonchemical addiction is significantly important. The present study finds that college students spent nearly 8 hours daily on their mobiles. This piece of technology becomes an increasingly realistic addiction to youths. Studies results suggest that certain activities performed on one's mobile are more likely to lead to dependence than others and that these addictive activities vary across gender. Results also show that University students have high addiction than college students. Urban students have more addiction than rural students.

Appendix:

Cell Phone Addiction Scale (MRCPAS)*

- I get agitated when my cell phone is not in sight.
- I get nervous when my cell phone's battery is almost exhausted.
- I spend more time than I should on my cell phone.
- I find that I am spending more and more time on my cell phone.

Cell-phone Use Items

- 1. In a typical day, how many calls do you make with your cell-phone? None, 1–5, 6–10, 11–15, 16–20, more than 20 calls per day
- In a typical day, how many texts do you send from your cellphone? None, 1–10, 11–20, 21–30, 31–40, 41–50, 51–60,

- 61-70, 71-80, 81-90, 91-100, 100+
- 3. In a typical day, how many e-mails do you send from your cellphone? None, 1–10, 11–20, 21–30, 31–40, 41–50, more than 50 e-mails each day.
- 4. In a typical day, how many whatsapp massages do you send from your cell-phone? None, 1–10, 11–20, 21–30, 31–40, 41–50, 51–60, 61–70, 71–80, 81–90, 91–100, 100+
- In a typical day, how many Face book Massages do you send/receive from your cell-phone? None, 1–10, 11–20, 21–30, 31–40, 41–50, 51–60, 61–70, 71–80, 81–90, 91–100, 100±
- 6. In a day how much time you spend in books reading? None. 1-2.2-3.3-4 hours a day.
- In a day how much time you spend in Games? None. 1-2,2-3,3-4 hours a day.
- 8. In a day how much time you spend in you tube? None. 1-2,2-3,3-4 hours a day.
- 9. Do You Use you phone as clock?
- * All responses followed a seven-point, Likert-type format (1 = strongly disagree; 7 = strongly agree).

References

- Alavi S. S., Ferdosi M., Jannatifard F., Eslami M., Alaghemandan H., Setare M. Behavioral addiction versus substance addiction: Correspondence of psychiatric and psychological views. International Journal of Preventive Medicine. 2012;3((4)):290–294. [PMC free article] [PubMed]
- Belk R. W. Possessions and the extended self. Journal of Consumer Research. 1988;15((2)):139–168.
- Bianchi A., Phillips J. G. Psychological predictors of problem mobile phone use CyberPsychologyBehavior. 2005;8((1)):39–51. [PubMed]
- Billieux J., van der Linden M., D'Acremont M., Ceschi G., Zermatten A. Does impulsivity relate to perceived dependence and actual use of the mobile phone? Applied Cognitive Psychology. 2007;21:527–537.
- Billieux J., van der Linden M., Rochat L. The role of impulsivity in actual and problematic use of the mobile phone. Applied Cognitive Psychology. 2008;22:1195–1210.
- Brenner J. Pew Internet: Mobile. 2012 Retrieved August 7, 2012, fromwww. pewinternet.org/commentary/2012/febru-ary/pew-internet-mobile.aspx.
- Campb ell I. Chi-squared and Fisher–Irwin tests of two-by-two tables with Small Sample recommendations. Statistics in Medicine. 2007;26((19)):3661–3675.
- Carmines E. G., Zeller R. A. Reliability and validity assessment. Beverly Hills, CA: Sage; 1979.
- Cassel C. M., Hackl P., Westlund A. H. On measurement of intangible assets: A study of robustness of partial least squares. Total Quality Management. 2000;11((7)):897–908.
- Chakraborty K., Basu D., Kumar K. G. V. Internet addiction: Consensus, controversies, and the way ahead. East Asian Arch Psychiatry. 2010;20:123–132. [PubMed]
- Desarbo W., Edwards E. Typologies of compulsive buying behavior: A constrained clusterwise regression approach. Journal of Consumer Psychology. 1996 5:231–262.
- Faber R. J., O'Guinn T. C. Handbook of Consumer Psychology. New York: Lawrence Erlbaum Associates; 2008. Compulsive buying; pp. 1039–1056.
- Fornell C., Larcker D. F. Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research. 1981; 28((1)):39–50.
- Geser H. Are girls (even) more addicted? Some gender patterns of cell phone usage. Sociology in Switzerland: Sociology of the Mobile Phone. 2006 Retrieved date, fromhttp://socio.ch/mobile/t_geser3.pdf.
- 15. Griffiths M. D. Technological addictions. Clinical Psychology Forum. 1995:14–19.
- Griffiths M. D. Internet addiction: Fact or fiction? The Psychologist: Bulletin of the British Psychology Society. 1999;12:246–250.
- British Psychology Society. 1999;12:246–250.

 17. Griffiths M. D. Does Internet and computer "addiction" exist? Some case study evidence. CyberPsychologyBehavior. 2000;3((2)):211–218.
- Griffiths M. D. Facebook addiction: concerns, criticism, and recommendations A response to Andreassen and colleagues. Psychological Reports. 2012;110 ((2)):518–520. [PubMed]
- Grover A., Kamins M. A., Martin I. M., Davis S., Haws K., Mirabito A. M., Mukherjee S., Pirouz D., Rapp J. From use to abuse: When everyday consumption behaviors morph into addictive consumptive behaviors. Journal of Research for Consumers. 2011;19:1–8.
- Hair J. F., Sarstedt M., Ringle C, M., Mena J. A. An assessment of the use of partial least squares structural equation modeling in marketing research. Journal of the Academy of Marketing Science. 2012;40((3)):414–433.
- Hair J. F., Ringle C. M., Sarstedt M. 2011PLS-SEM: Indeed a silver bullet Journal of Marketing Theory and Practice19(2)139–151.
- Hakoama M., Hakoyama S. The impact of cell phone use on social networking and development among college students. The American Association of Behavioral and Social Sciences Journal. 2011;15:1–20.
- 23. Haverila M. J. Cell phone feature functions and gender differences among college students. International Journal of Mobile Communications. 2011;9((4)):401–419.
- IDC/Facebook Always connected: How smartphones and social keep us engaged. An IDC Research Report, Sponsored by Facebook. 2013 Retrieved April 4, 2103, from https://fb-pub-lic.box.com/s/3iq5x6uwnqtq7ki4q8wk.

- Jackson L. A., Zhao Y., Kolenic A., Fitsgerald H. E., Harold R., von Eye A. Race, gender, and information technology use: The new digital divide. CyberPsychologyBehavior. 2008;11((4)):437–442. [PubMed]
- Jenaro C., Flores N., Gomez-Vela M., Gonzalez-Gil F., Caballo C. Problematic Internet and cell-phone use: Psychological, behavioral, and health correlates. Addiction Research and Theory. 2007;15((3)):309–320.
- Junco R. Comparing actual and self-reported measures of Facebook use. Computers in Human Behavior. 2013;29:626–231.
- Junco R. Students spend a lot of time Facebooking, searching, and texting. 2011 Retrieved August 9, 2012, from http://blog.reyjunco.com/students-spend-a-lot-of-time-facebooking-searching-and-texting.
- Junco R., Cole-Avent G. A. An introduction to technologies commonly used by college students. New Directions for Student Services. 2008;124:3

 –17.
- 30. Junco R., Cotton S. R. No A 4 U: The relationship between multitasking and academic performance. ComputersEducation. 2012;59:505–514.
- Junco R., Merson D., Salter D. W. The effect of Gender, ethnicity, and income on college students' use of communication technologies. CyberPsychologyBehavior. 2010;13(6)):619–627. [PubMed]
- Kuss D. J., Griffiths M. D. Excessive online social networking: Can adolescents become addicted to Facebook? Education and Health. 2011;29((4)):68–71.
- Leung L. Mediated Interpersonal Communications. Mahwah, NJ: Lawrence Erlbaum Associates; 2008. Leisure boredom, sensation seeking, self-esteem, addiction: Symptoms and patterns of cell phone use; pp. 359–381.
- Martin I. M., Kamins M. A., Pirouz D. M., Davis S. W., Haws K. L., Mirabito A. M., Mukherjee S., Rapp, J. M., Grover A. On the road to addiction: The facilitative and preventive roles of marketing cues. Journal of Business Research. 2013;66:1219–1226.
- Massimini M., Peterson M. Information and communication technology: Affects on U.S. college students. Cyber-Pschology: Journal of Psychosocial Research on Cyberspace. 2009;3((1)):1–12.
- McAllister S. 2011 Retrieved August 9, 2012, fromwww. hackcollege. com/ blog/ 2011/18131/generation-mobile.html.
- 37. Mick D. G., Fournier S. Paradoxes of technology: Consumer cognizance, emotions, and coping strategies. Journal of Consumer Research. 1998;25:123–143.
- Moeller S. A day without media. 2010 Retrieved April 5, 2013, fromhttp:// withoutmedia.wordpress.com.
- Olsson U. H., Foss T., Troye S. V., Howell R. D. The performance of ML, GLS, and WLS
 estimation in structural equation modeling under conditions of misspecification and
 nonnormality. Structural Equation Modeling. 2000;7((4)):557–595.
- Reinartz W. J., Haenlein M., Henseler J. An empirical comparison of the efficacy of covariance-based and variance based SEM. International Journal of Market Research. 2009;26((4)):332–344.
- Roberts J. A. Shiny objects: Why we spend money we don't have in search of happiness we can't buy. New York, NY: HarperOne; 2011.
- Roberts J. A., Pirog III, S. F. A preliminary investigation of materialism and impulsiveness as predictors of technological addictions among young adults. Journal of Behavioral Addictions. 2012;2((1)):56–62. [PubMed]
- 43. Shambare R., Rugimbana R., Zhowa T. Are mobile phones the 21St century addiction? African Journal of Business Management. 2012;62((2)):573–577.
- Su-Jeong Y. Do you own your cell phone or does it own you? A test for teens. 2005 Retrieved February 27, 2006, fromhttp://j oonganddaily.j oins.com/ 200511/27/ 20051127245237539900090609061.html.
- Wei R., Lo V. H. Staying connected while on the move: Cell phone use and social connectedness. New MediaSociety. 2006;8((1)):53–72.