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Role of Academic Stress on Computer Addiction among Adolescents

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Abstract
Purpose This study aimed to examine the role of academic stress on computer addiction among adolescents.
Method A total of 300 adolescent students (aged 15 to 18) were recruited in to this study from different schools of Kanpur city.150 were computer addicts and 150 were normal, they completed questionnaires.
Results T Test critical ratio is used for calculation. The results indicated that academic stress was significantly higher in computer addicts. The addicted group scored higher in academic frustration, academic conflict, academic pressure and academic anxiety.
Conclusion This study concluded that academic stress is a causative factor of computer addiction among adolescents.

Keywords: Computer Addiction, Adolescents, Academic Stress

Introduction

The computer is an electronic cocaine for many people and spreading like epidemic (whybrow). Computer activities rate and scale are increasing everyday (Entertainment software association 2012). As we know that computer are now essential for children" education but too much use of computer have disadvantage.

Computer addiction is relatively new term used to described a type of dependency on ones computer. There is no certain definition of computer addiction that is universally accepted by psychologist (chou 2005). It is not limited to personal computers (PCS). It covers games and internet also.

In May 2013 APA proposed criteria for computer internet games addiction in DSM 5 concluding that there was insufficient evidence to include it as an official disorder, but computer addiction disorder are included in section 3 of DSM5, for further studies.

Computer use is a widespread leisure activity for adolescents (Cilesiz 2009). Adolescents use computer for their study but by the regular use it become an addiction. It is difficult for them to leave computer and take out time for other work. Therefore the time of study is replaced by many clicks and touches on the mouse and keyboard. Tolerance , withdrawal and compulsiveness are requisites for the diagnosis of dependency and addiction APA.

Psychological tolerance is indicated by the need to spend increasing amount of time on computer activities such as playing games ,arranging files , chatting and on line group discussion (Orzack 1998). Withdrawal symptoms are indicate by an increasing irritability and anxiety when a person is unable to access a computer (Orzack 1998). Especially anxiety , depression, moodiness, affective disturbance and interruption of social relationship. Even though computer user are aware of behavior problem they continue to use the computer compulsively (Orzack 1998). Griffiths 2000 believes that computer and internet are branch of behaviour addiction satisfying the 5 criteria for addiction : (i) Saliency (ii) Mood Modification Tolerance (iii) Withdrawal (iv) Conflict and (v) Relapse. There are many types of computer addiction such as games 2-chat 3-shopping 4-gambling 5-pornography 6-social network and blogging 7-surfing 8-browsing 9-watching video listening to music & songs.

The newly diagnosed computer addiction has gained much press attention recently as children have been affected. Each adolescent's computer use is different. They might use computer extensively for their work, for example they might use chatting to keep in touch with faraway family members and friends. Spending lot of time online and offline only

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become a problem when it absorbs all the time of adolescents, causing they neglect their family, relationships, work, schools or other important thing in life.

In today's highly competitive world, students face various academic problems including exam stress, disinterest in attending classes and inability to understand the subject, exam stress, performance in exams, the reaction of parents, parental pressure, reaction of friends, lack of interest in subjects and inability to follow the teachers, worry about grade, competition, sports or a tough class load.

Elizabeth Scott (2011) tells some of the main sources of academic stress like work that is too hard, work that is too easy, mismatch learning style ,home work problem, over scheduling , lack of time, not enough sleep, teachers, friends, family problem.

Adolescence students try to reduce the academic stress but when it can't be control the adolescents turn to computer as a way to cope with academic stress and in order to manage unpleasant feeling such as stress lonelines, depression and anxiety related to study and school. Adolescent look for a way to escape with academic problem and quickly relieve academic stress the computer and internet is an easily accessible outlet. Adolescent use computer and internet to distract from academic worries and fear some time adolescent feel computer and internet is more comfortable than real life friends.

Review of Literature

The research on computer and internet addiction was initiated by **Dr. K . Young(1998)** in U.S.since then world wide interest in the investigation of computer and internet addiction has gained momentum (yellowless and marks 2007).

It has found that addiction is influenced by a complex interacting network of Biological, Psychological and social variables (**Barnes 1977 & Compbell 1983**). Some Psychological factors are positively correlated with computer addiction (**Ping Sun, J.B. Unger 2005**).

Wang, Zhou, Lu (2011) studied several risk factors for problematic internet and computer use such as high study related stress, poor relationship with teachers and students and conflict in family relationship. **Shepherd and Edelman (2005)** conducted this research to examine the relationship between internet and anxiety and suggested that internet is related to anxiety as a way to cope with social anxiety, general anxiety and social fear.A online survey was conducted among 250 subjects and found that subjects used internet as a way of escaping from problems or relieving a dysphonic moods (feeling of helplessness, guilty, anxiety, depression and stress) (**Young 1996**). Internet helps to cope with illness, psychological and emotional problems and help to minimize isolation and distress (**Rashed 2000**). A study examined the relationship between risk taking behaviour academic self efficacy and problematic internet use in 567 adolescents, and found that risk taking and academic self- effiacay emerged as significant predictors of problematic internet use (**Hodaci 2012**). **Bakken & et.al 2009** found 4.1% of females and 19% of male among a group aged 14 to 19 were classified as having computer and internet addiction and they use the computer to avoid stress or responsibility. **Voget (2000)** conducted a study among

college student in a souths lieviest college and found that computer user feel pleasure, gratification and stress reliefs at the time of computer use.

Objectives

1. To study computer addition among adolescents.
2. To study academic stress among adolescents.

Methodology and Procedure

Various hypotheses in the present study are described below:-

1. Academic stress would be significantly higher in computer addicts.
2. Academic Frustration ,Academic conflict,
3. Academic anxiety would be significantly higher in computer addicts.

Computer addicts and non-computer addicts are dependent variable in the present study and academic stress is independent variable in this study.

Sample

In the present study systematic purposive sampling technique was used to draw out the sample, because random sampling technique was neither relevant nor humanly possible to adhere to the procedure in addict situation.

However to ascertain that no bias was involved, the investigator took all possible precaution in selecting the representative sample. The experimental group consisted of computer addiction. There were 150 male adolescents (15 yrs. to 18 yrs.) in experimental group and controlled group consisted of 150 addition free or normal adolescent of same age group. There were 300 adolescent in both groups. Computer Addicts were drawn from very famous reputed and known public schools of Kanpur City, 150 non addict normal adolescents were selected from the same schools by using same sample technique.

Groups	Experimental (Computer addicts)	Control Group (Non Computer addicts)
Sample Size	150	150

Procedure of Data Collection.

Present study was related to computer addict adolescents. Many reputed and known schools were selected as a center of collection of data. Only those adolescents were selected for the study who were using computer regular at least from last one year.. Firstly,self made computer addiction scale was given to the adolescents, which is filled by them, then the investigator has sorted the selected the desired adolescents (computer addicts) for the present research work. Researcher fixed next day with the addict adolescents concerned and gave abha rani bhist academic stress scale.

Statistical Technique Used

1. The data collected was subjected to scoring as per procedure laid down in the manual.
2. The scores now obtained were tabulated into compared on table.
3. Statistical techniques like means, standard deviation, SED, critical ratio, 't' test were used to analysis the result and draw inferences.

Hypothesis No.1

Academic stress would be significantly higher in computer addicts.

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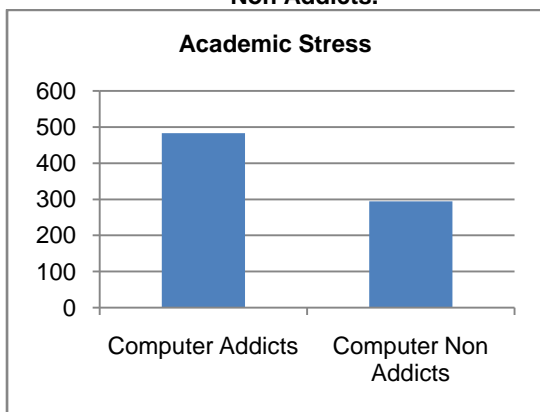
Table No. 1
Critical Ratio Along With Mean and Standard Deviation of Academic Stress.

Groups	Sample	Mean	SD	DF	SE _D	CR
Computer addicts	150	482.81	59.58	298	7.14	26.43*
Non addicts	150	294.06	65.05			

* Significant at .01 level of significance.

Data from Table No.1 and bar graph shows the levels of academic stress between both group computer addicts and non computer addicts. Finding of Table No.1 indicate the mean score of compute addict group 482.81 and while of computer non-addicts, it is 294.06. Mean of experimental group is higher than control group and CR score 26.43 is significant at .01 Level. This indicates the computer addicts group has experienced higher academic stress in comparison to non-addict group.

Bar Diagram Showing Comparison of Academic Stress between Computer Addicts and Computer Non Addicts.



Hypothesis No.1(a)

Academic Frustration Would be Significantly Higher in Computer Addicts.

Table No. 1(a)

Critical ratio along with mean and standard deviation of academic frustration.

Groups	Sample	Mean	SD	DF	SE _D	CR
Computer addicts	150	157.00	33.57	298	3.316	22.29*
Non addicts	150	83.07	22.86			

* Significant at .01 level of significance.

Finding of 1a further, confirms that the mean value of computer addicts group 157.00 is higher than the mean value of (non-computer addicts) 83.07. The value of CR 22.29 indicate that academic frustration is significantly higher in computer addicts in comparison to non addict group.

Bar Diagram Showing Comparison of Academic Frustration between Computer Addicts and Computer Non Addicts

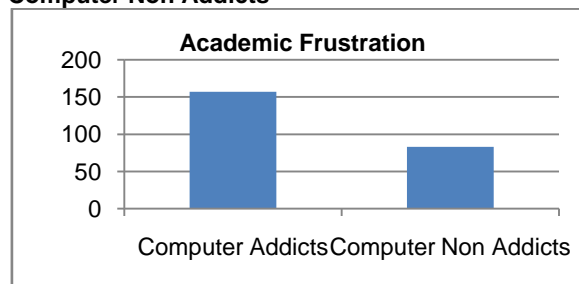


Table No. 1(b)

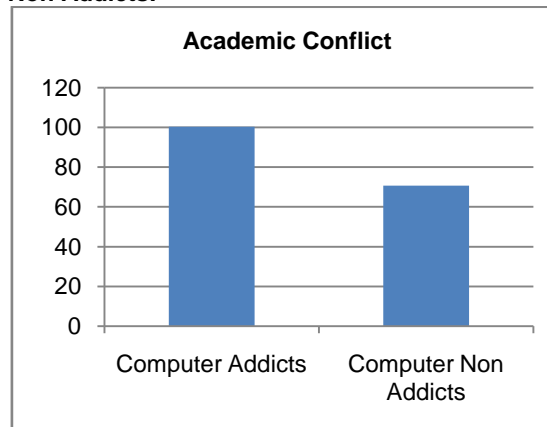
Critical ratio along with mean and standard deviation of academic conflict

Groups	Sample	Mean	SD	DF	SE _D	CR
Computer Addict	150	100.30	14.61	298	1.79	16.56*
Non addicts	150	70.64	16.37			

* Significant at .01 level of significance.

Table shows that mean of addict group 100.3 is higher to the mean value of computer non-addict group 70.64. CR value is 16.56 which is significantly higher at 0.01 level. It indicates that academic conflict has been significantly higher in computer addict adolescents.

Bar Diagram Showing Comparison of Academic Conflict between Computer Addicts and Computer Non Addicts.



Hypothesis No.1(c): Academic pressure would be significantly higher in computer addicts.

Table No. 1(c) : Critical ratio along with mean and standard deviation of academic pressure.

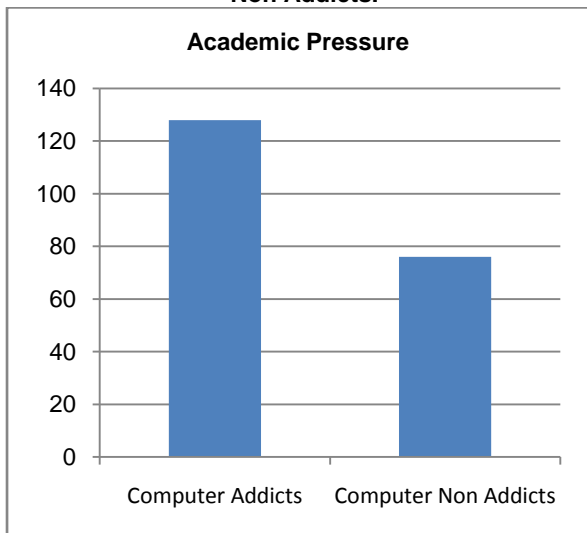
Groups	Sample	Mean	SD	D F	SE _D	CR
Computer Addict	150	128.00	29.64	298	3.03	17.16*
Non addicts	150	76.01	22.34			

Significant at .01 level of significance.

Table No.1C shows the mean value of computer addicts group 128.00 and the mean value of non-addicts group 76.01 that denotes there is difference between the mean of both group and CR value 17.16 is significant at .01 level. It indicates that academic pressure is significantly higher in computer addicts.

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Bar Diagram Showing Comparison of Academic Pressure Between Computer Addicts and Computer Non Addicts.



Hypothesis No.1(d)

Academic anxiety would be significantly higher in computer addicts.

Table No. 1(d)

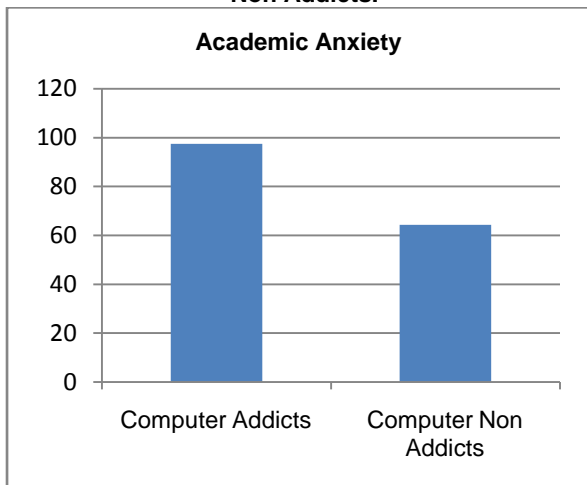
Critical ratio along with mean and standard deviation of academic anxiety

Groups	Sample	Mean	SD	DF	SE _D	CR
Computer Addicts	150	97.43	18.38	298	2.011	16.47*
Non addicts	150	64.30	16.40			

* Significant at .01 level of significance.

From this table the mean value of computer addicts group is 97.43 and non-computer addicts group's mean is 64.30. Mean value of addicts group is higher than non-addicts group. CR score 16.47 is significant on .01 level. It shows that academic anxiety is higher in computer addicts in comparison to non-computer addicts.

Bar Diagram Showing Comparison of Academic Anxiety Between Computer Addicts and Computer Non Addicts.



Interpretation of Results

On the basis of the results drawn from data, hypotheses are checked interpreted one by one as under .

Hypothesis 1

Academic Stress Would be Significantly Higher in Computer Addicts.

From the table (1) of critical ratio and mean it has been clearly seen that academic stress is significantly higher in computer addicts in comparison to computer non addicts. Computer addict adolescents feel more academic stress like high competition in studies, examination stress, disinterest in attending classes, inability to understand the subjects, maladjustment with school, teachers and other students especially parental expectation and pressure to get good grade in exams. Academic stress is a chronic stressor for the adolescents. When they could not fight with stress they choose some coping strategies like computer and become addict to computer. Some studies reveal that computer related activities are a way of escaping from stress and distress (Young 1996, Rashed 2000, Voget 2000), Chang and Manlaw (2008) confirmed poor academic performance is predictive cause of internet addiction.

Hypothesis 1(a)

Academic frustration would be significantly higher in computer addicts.

With regard to the result table(1a), it has been found that academic frustration is significantly higher in computer addicts. Computer addicts became more upset by one or multiple things either directly or indirectly related to school, class, home work exams, test and other academic activities. Frustration is related anger, disappointment and confusion and arises from perceived resistance to fulfillment of adolescent's will. Adolescents become compulsively obsessed with computer to forget their frustration. Young (1996) found that when adolescents feel more frustration they go to computer to forget their frustration. Ko, Yen, Yen, Chen (2008) supported that adolescent especially male use internet to avoid their frustration.

Hypothesis 1(b)

Academic Conflict Would Be Significantly Higher in Computer Addicts.

According to this study it has been found that academic conflict is significantly higher in computer addict group. Computer addict adolescents face more academic conflicts. Adolescents feel arousal of two or more strong academic motives that cannot be solved together. Academic conflicts are often unconscious in the sense that adolescents cannot clearly identify the source of stress. This situation motivates the adolescents to use computer as a way to cope with conflicting situation.

Hypothesis 1(c)

Academic Pressure Would Be Significantly Higher in Computer Addicts.

In the present research work the computer addicts have higher academic pressure in comparison to computer non addict adolescents. Academic pressure means that there is a range of pressure, adolescents feel derived from a need for perfection, worry for grades,

parental pressure, competition, sports, and future education.

School especially, public schools follows rigorous curriculum and rigid pattern of study and put an immense pressure on adolescents. Adolescents do not get exposure of outside world, they are always seen in different types of pressure like exams, test, assignments, home work pressure.

At last, adolescent use computer as an easy accessible outlet to flight from their academic pressure.

Hypothesis 1(d)

Academic Anxiety Would be Significantly Higher in Computer Addicts.

From the critical glance at the result table, it is clear that academic anxiety is significantly higher in computer addicts than in computer non-addicts. Adolescents experience fear, worry, uneasiness and dread related with study, exam, career, result and relationship with teachers and student when Adolescent feels helpless to fight with the problem they turn to computer to dodge the painful experience. Shepherd and Edelman (2005) said that adolescents use internet to cope with social and general anxiety. People use internet as a way of escaping from problem or relieving a dysphonic mood like feeling of helplessness, guilty and anxiety (Young 1996).

Conclusion

Role of Academic Stress on Computer Addiction Among Adolescents

Academic stress is significantly higher in computer addicts in comparison to computer non-addicts. Academic Frustration, Academic conflict,

Academic pressure are significant variables of computer addiction among adolescents

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