The Paradox of Technology Adoption: Exploring the Effect of Cyber Usage and its Effect on Dependence

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Abstract

This paper examines student's cyber usage and its effect on dependence. Cybers technology relates to any computer enabled device and internet use where users communicate on various communication networks. Cyber Overall users throughout the world have highly relied on the Internet, it provides them many benefits, while at the same time dependent on cyber technologies and unable to regulate their use with negative impacts.

Method: The study is dependent on a quantitative method based on random distribution of a questionnaire. The study sample consisted of 438 participants, 196 males and 242 females. The study outcomes highlighted vital impacts of internet use on users. Evidence indicates users have high reliance on the internet, which affected their wellbeing. Results show cyber dependence was more evident with females than males, where males are more likely to engage in behaviors that have a direct impact on their wellbeing. In terms of college students' perception in relation to their major of study and cyber activity. In terms of major, art students experienced higher cyber dependence than users in other majors. It also been evident that "arts" students spend more time using cyber technology than "tech" students. In addition, "arts" students admit that the cyber dependency is negatively impacting their wellbeing and causing them various health issues.

Conclusion: Cyber dependence has a negative impact on student's health. Health Decision makers must address this issue and highlight to users the dangers of cyber dependence. Awareness campaigns are required to address this rapidly growing issue that has escalated recently.

Keywords: cyber dependence, technology adoption, cyber technology, internet adoption, user

1. Introduction

Cyber technology has given easy accessibility to users from all over the world to communicate and join various kinds of communication and social media platforms. Users can obtain information from any other computer if they have permission to do so, and in some cases, directly communicate with users on other computers (Turow, 2009).

The internet is a vital resource that is used among users on a worldwide scale.   However, it accompanies both positive and negative impacts on users. It is an essential part of everyday life, especially among the young generation. Internet use has reached almost 4.8 billion active internet users worldwide in 2020, equivalent to 62% of the globe. Asian users had largest number of online users (Turow, 2009). Extreme use of the internet has led to the emergence of cyber dependence (CD), which is excessive and uncontrollable use of the internet that leads to health problems (Cox, 2005).

1.1 Cyber Technology Usage in Kuwait

Hamad (2009) examined Internet use in relation to genders and to understand the degree of dependence. Findings showed low level of awareness concerning excessive Internet use.   Ten percent of users showed to high level of CD that required intervention, while, about 25 percent had low level of CD. In terms of gender, females experienced less CD than male users. The Internet Addiction Test (IAT) used by Widyanto & McMurren, (2004), and Young & de Adreu (2011) was used to measure the level of user awareness among high CD users.

The main objective of this study is to examine two main areas: Users perceptions of CD and its impact on their wellbeing. And second, to assess the impact of CD on user behavior. Therefore, this study examines users' perception regarding CD, in addition to understanding the effect of cyber dependency on user's wellbeing.

2. Review of Literature

2.1 Cyber Technology

Unlike previous forms of media, CD has characteristics that differentiate it from previous technologies. Governments identifying CD among their users had the opportunity for early installing precautionary measures to address the problem, such as blocking certain Internet sites.

2.2 Cyber Dependence

Cyber dependence (Charmaraman, Chan, Chen, Richer, & Ramanudom, 2018) has emerged as one of the top health problems for college students in recent years. In a study by Cox (2005), college students and teens were mentioned as some of the most common focus groups for studies on cyber dependency. During the Covid-19 pandemic the issue of Internet dependence has escalated among students with the transition from the traditional learning scheme to an online one, which required immediate intervention (Li, DU, & Sun, 2022; Muliyah, Aminatun, & Septiyana, 2022; Khailova, 2022)

As an excuse for uncontrollable, harmful technology use, the idea of "cyber dependency" has been suggested (Shapira et al., 2003). A study identified a relationship between Internet dependence and procrastination among learners which poses a major risk in academic performance. The study suggests time management tools to help learners use the Internet for academic reasons (Ti, Zhang, & Yan, 2022). A study performed among students showed the Internet was used mainly for online learning, while in the meantime they used the Internet for social media as a secondary learning resource (Kassem, 2022). A study performed among students to evaluate the challenges of online learning showed that students faced two main problems technology dependence, and technology literacy, while the advantages were self-learning and independent information seeking (Alavi, Dashtestani, & Mellati, 2022).

Users use of the Internet for Gaming, use of social networking sites, gambling, shopping, and information overload, all lead to CD (Shapira et al., 2003). This led to classification the Internet as leading to high dependence behavior (Young, 2004), highlighting the importance of examining such phenomena by researchers. Therefore, research on CD has gained increasing attention from researchers, (Hassan et al., 2020), especially in younger users as they have been identified to developing show increased levels of CD (Ko et al., 2005).

"Cyber dependency" is the term Young uses to describe this maladaptive use of the internet (Young, 2004). Several factors have been associated with CD, including preoccupation, uncontrollable impulses, overuse, tolerance, withdrawal, loss of control, and unnecessary time. These are all symptoms of preoccupation, uncontrollable impulses, and overuse.

2.3 Cyber Dependence and Wellbeing

Recent studies showed an increasing relationship between Internet usage and the wellbeing of users over the past two years (Onyemaechi, Unnadike, Izuchukwu, et al., 2022; Clarman, 2022; Elmassah, & Hassanein, 2022; Robert, & Kadhiravan, 2022; Gong, Firdaus, Said, Ali Aksar, Danaee, & Xu, 2022). Wide range Internet coverage areas, and conveniently priced Internet services increased the usage of the Internet through a wide range of Internet enabled devices among younger users (Fields & McNamara, 2003). Statistics showed the prevalence of CD among younger generation users to be from 23.0% to 43.0% (Guan et al., 2015; Isa, 2016; Ching et al., 2017; Azmi et al., 2019). These statistics make it clear that CD over the years has had a negative impact on younger users, where users experiencing higher CD are prone to perform poor academically, in addition to other addictive health problems such as the use of excessive alcohol consumption, drugs, etc. (Arbabisarjou et al., 2016; & Durkee et al., 2016). The Revised Chen Internet Addiction Scale (CIAS-R) tested CD in six Asian countries and found higher levels of CD than previously reported by the IAT (Mak et al., 2014).

A recent Malaysian study used its scale to CD among its population. The study reported 23.0% of young users aged 11 years showed signs of CD (Azmi et al., 2019). Excessive internet use was found to be 1.4 percent in a recent survey of 11th and 12th-grade students in India, while moderate and mild internet use were found to be 30.3 percent and 23.9 percent, respectively (Kumar et al., 2019). Another recent study in China found that 26.5 percent of teenagers aged 10 to 18 years have IA (Xin et al., 2018).

For that reason, many studies concerning CD have mostly focused on young users (Nor & Smith, 2019). In Southeast Asia a recent study recorded up to 47.4% of users with CD (Balhara et al., 2018). Different study

methods, assessment tools in addition to other methods of assessment used in different countries could show differentiated findings (Wu et al., 2015; Chakraborty, Basu, & Vijaya Kumar, 2010). As a result, numerous CD measurement instruments have been developed.

Contradictory to previous findings (Xin et al., 2018; Karacic & Oreskovic, 2017) studies reported older users to experience higher CD levels than younger users. Users in higher levels of education developed higher CD levels than younger ones that faced greater Internet use restrictions from parents (Karacic & Oreskovic, 2017). Another research also showed similar findings that indicate older users show greater CD than younger ones (Xin et al., 2018; Karacic & Oreskovic, 2017). Higher school students had a higher risk of getting CD, presumably because they had more independence at that age and were allowed more privacy and less control from parents (Karacic & Oreskovic, 2017). It's also likely that older teenagers used the internet more for education and leisure than younger users. Recent research shows Certain wellbeing user characteristics such as happiness were reported to be low among users with CD (Alheneidi, 2019; Alheneidi & Smith, 2020; Smith & Idzadyar, 2020). Longitudinal studies reported highly negative outcomes with users that experience CD (Alheneidi & Smith, 2020)

Researchers relied on IAT to assess users experiencing CD (Kiesler, Siegal, & McGuire, 2004). Siciliano et al., (2015), developed a short screening test to determine inappropriate Cyber usage in adolescents. While Young, (2004), developed a Cyber Dependency Test (CDT), a 20-question questionnaire focused on the parameters used to diagnose problematic cyber user characteristics, and characterized them as bold, outgoing, open-minded, and assertive.

In Malaysia users aged 20–24 have been identified as the most regular internet users (Fields & McNamara, 2003). As the internet expands in popularity in Malaysia, CD is becoming a major issue, particularly among the country's youth.

It has been evident that CD users utilized the Internet for an average of 38 hours per week, according to Kiesler, Siegal, and McGuire (2004), with many of them expressing despair, loneliness, low self-esteem, and anxiety. Almost 80% of CD users use social media sites, and interactive games.

There is no formal medical diagnosis of CD. It remains to be seen as some sort of addiction. Researchers Fields and McNamara (2003) proposed programs designed to help and prevent CD among the young generation. According to Ko et al. (2005), 19.8 percent of teenagers experiencing CD show negative wellbeing behaviors such as violence, and improper actions with others. According to Roche (2005), computer-mediated communication reduces social interaction, and less eye-to-eye communication. Therefore, this paper aims at examining the following research question:

Q1: What is the effect of cyber dependence on student's health and overall wellbeing?

2.4 Cyber Dependence and Demographics

Several demographic characteristics have been linked to adolescent CD. CD was less prevalent among young users living in cities than urban areas (Sowndarya and Mounesh (2018), which is justifiable as cities have better Internet services than other areas. those living in cities. Even though most studies showed that males are more prone to experience CD than females (Xin et al., 2018; Sowndarya & Mounesh, 2018; & Prabhakaran et al., 2021), this study identified no significant gender differences in CD among Malaysian teenagers. When it comes to internet use, there may be gender differences depending on the kind of Internet use for example males engage in greater online gaming than females, while females engage in greater online shopping, and social media use than males (Weiser, 2004). Therefore, this study explores the following research questions:

Q2: What is the effect of cyber dependence in relation to gender?

Q3: What is the difference in user's CD in relation to their year of study?

3. Methodology

The purpose of the study is to understand user's level of CD and its impact on their wellbeing. The study adopts a quantitative research approach based on a questionnaire that was developed and randomly distributed to 438 individuals, with students (196) being male and (242) being female.

The questionnaire consists of two main sections. The first section examines user's demographic dat. And the second section tests 34 dependent variables and 4 independent variables. The second section tests user's perceptions of CD through 19 dependent variables, and the remaining 15 variables test user's CD and its effect on their wellbeing.

3.1 Data Analysis

Data is analyzed using the Statistical Package for Social Sciences (SPSS), in addition to finding the average and t-test to highlight the results in relation to demographic variables.

T-tests were calculated between each pair of measurements to further investigate the differences between the variables. An analysis of variance (ANOVA) was performed to see if there were any significant differences between variables, in addition to showing the means and standard deviations. An analysis of variance (ANOVA) is a commonly used test and widely used in the social science field to compare the means (Whatley, 2022; Hothorn, 2022).

3.2 Validity and Reliability

The Validity and Reliability of the questionnaire was measured. To measure the validity of the questionnaire, it was circulated to 5 university professors to get their feedback. Based on their suggestions and recommendations, the questionnaire was modified and circulated to various participants. Validity and reliability are calculated through Cronbach alpha coefficients with >.9 being excellent, >.8 being good, >.7 being acceptable, >.6 being doubtful, >.5 being poor, and >.5 being unacceptable (George and Mallery, 2016) for cyber dependence, and cyber health.

4. Results and Discussion

The study sought to ascertain how cyber dependency affected the health of university students. This study examined two major factors: the first is the health-related component (H), and the second is the cyber dependence factor (C). Furthermore, the study examined two major demographic factors: the first is to understand cyber reliance in relation to gender, and the second is to evaluate cyber dependence in relation to the student's year of study. As a result, the following outcomes have been observed.

Cronbach's alpha coefficient for cyber dependence items was 0.95, indicating strong reliability. Cronbach's alpha coefficient for cyber health items was 0.90, indicating acceptable reliability. Cronbach's alpha coefficient for overall items was 0.96, indicating excellent reliability evident in Table 1.

Table 1. Reliability test for cyber, health, and overall health and cyber factors combined

Scale	No. of Items	A
Cyber	19	0.95
Health	15	0.90
Overall	34	0.96

The two main research questions are tested using t-test and Anova in relation to demographic variables such as gender (male, female), year of study (first/second College year), (third/fourth College year).

The study revealed the highest gender was Female (number = 242, 55%), and the highest year of study observed category the third year of study (number = 140, 32%).

Table 2. Frequency table for nominal variables

Variable	n	%
Gender		
Female	242	55
Male	196	45
Missing	2	0
Year of study		
Freshmen (year 1)	85	19
Sophomore (year 2)	116	26
Junior (year 3)	140	32
Senior (year 4)	98	22
Missing	1	0

4.1 Results for Health and Overall Wellbeing

A total of 30 health factors pertaining to cyber dependence and its effect on human health. Some health variables included hours of using computer; drinking fluids during usage; cyber dependence and its overall effect on health; cyber dependence and its effect on the nervous system; screen brightness and its effect on eyes; keyboard effect on numbness of fingers; its effect on the overall bodies nervous system; in addition to its effect on frequent headaches, and brain damage, etc.

Findings for the health factors indicate for H_Q1: excessive Internet use more than four hours and above may lead to serious health risks and may cause traumatic stress, has an average of 2.79 (SD = 1.25). For H_Q2: drinking fluids while using the Internet has a positive effect on wellbeing, has an average of 3.53 (SD = 1.22). For H_Q3: Cyber dependence negatively effects overall health and wellbeing, has an average of 2.88 (SD = 1.32). For H_Q5: Screen brightness negatively effects eyesight, has an average of 3.40 (SD = 1.25). For H_Q6: Using the keyboard for prolonged time negatively effects hands and fingers, has an average of 3.17 (SD = 1.23).

For H_Q8: Cyber dependence negatively affects the nervous system in the body, has an average of 2.53 (SD = 1.14). For H_Q14: Cyber dependence has a negative effect on headaches and mental problems, has an average of 2.63 (SD = 1.36). For H_Q15: Prolonged online gaming has a negative effect on sleep cycles and the brain, has an average of 2.84 (SD = 1.26). For H_Q16: Reducing screen brightness has a positive effect on the eyes, has an average of 3.45 (SD = 1.33).

For H_Q17: Spine related pain are the most common related health problems related to cyber dependence, has an average of 2.97 (SD = 1.31). For H_Q21: The Internet is positively related to obesity, has an average of 2.97 (SD = 1.25). For H_Q22: Eye resting and relaxing from Internet use reduces stress and tension, has an average of 3.37 (SD = 1.25). For H_Q23: Close to body computer use has a negative effect on female internal organs, has an average of 3.48 (SD = 1.27). For H_Q24: Cyber dependence has a negative effect vision and may cause eye problems, has an average of 3.49 (SD = 1.29). For H_Q30 has an average of 3.51 (SD = 1.30).

In Table 3, Westfall & Henning (2013) calculate skewness and kurtosis. The variable is asymmetrical about its mean when the skewness is larger than or equal to 2 and less than or equal to -2. When the kurtosis is more than or equal to 3, the variable's distribution has a significantly different tendency to produce outliers than a normal distribution.

Table 3. Summary statistics for health

Variable	M	SD	N	Min.	Max.	Skewness	Kurtosis
H_Q1	2.79	1.25	440	1.00	5.00	0.02	-1.04
H_Q2	3.53	1.22	438	1.00	5.00	-0.43	-0.79
H_Q3	2.88	1.32	439	1.00	5.00	-0.07	-1.21
H_Q5	3.40	1.25	433	1.00	5.00	-0.42	-0.75
H_Q6	3.17	1.23	436	1.00	5.00	-0.19	-0.96
H_Q8	2.53	1.14	437	1.00	5.00	0.32	-0.61
H_Q14	2.63	1.36	439	1.00	5.00	0.11	-1.30
H_Q15	2.84	1.26	439	1.00	5.00	-0.05	-1.07
H_Q16	3.45	1.33	438	1.00	5.00	-0.41	-1.01
H_Q17	2.97	1.31	440	1.00	5.00	-0.13	-1.13
H_Q21	2.97	1.25	439	1.00	5.00	-0.17	-1.00
H_Q22	3.37	1.25	439	1.00	5.00	-0.27	-1.01
H_Q23	3.48	1.27	438	1.00	5.00	-0.50	-0.74
H_Q24	3.49	1.29	438	1.00	5.00	-0.46	-0.87
H_Q30	3.51	1.30	439	1.00	5.00	0.20	3.10

4.2 Results for Cyber Dependence

The average of 3.45 (SD = 1.29) for C Q4: Cyber dependency has a negative influence on social life and may impair social ties, has an average of 3.45 (SD = 1.29). The responses to C Q7: Using Cyber technology has a detrimental impact on behavior and attitudes, particularly among youth, and may lead to communal violence, has an average of 3.26 (SD = 1.11). The responses to C Q9: Cyber technology aids in self-discovery and selection of favorite programs has an average of 2.97 (SD = 1.14). The responses to C Q10: Computer and Cyber technology play an essential part in the development of educational processes in schools has an average of 2.80 (SD = 1.32)

and a mean of 2.80 (SD = 1.32). C Q11: Cyber technology improves thinking by evaluating various views of a topic has an average of 2.90 (SD = 1.36). The results for C Q12: A high number of college students struggle with Cyber dependency has an average of 2.80 (SD = 1.48). The results for C Q13: Parents feel a high level of responsibility toward their children when it comes to blocking certain Cyber sites has an average of 2.74 (SD = 1.36). The results for C Q18: Most people provide false information about themselves has an average of 3.07 (SD = 1.31). The responses to C Q19: Cyber dependency is the leading cause of social and familial isolation, were diverse an average of 2.94 (SD = 1.32). The observations for C Q20: It's recommended to exercise occasionally while using the internet, has an average of 3.06 (SD = 1.31). C Q25: Cyber dependence is a dangerous disease that should be controlled, has an average of 3.11 (SD = 1.27). For C Q26: When using the internet, there are various safe practices and rules to follow, has an average of 2.87 (SD = 1.37). For C Q27: Playing computer games helps increase self-confidence, has an average of 3.25 (SD = 1.28). For C Q28: Cyber technology is regarded as one of the most important and dangerous for education has an average of 2.94 (SD = 1.28). The observations for C Q29: Computers and Cyber are regarded as the best teaching methods has an average of 2.95 (SD = 1.19). The observations for C Q30: Health Education is Important in Reducing Diseases Caused by Cyber dependence has an average of 3.17 (SD = 1.42). C Q32: I'd like to know more about the effects of Cyber dependence on health and psychological development, has an average of 2.83 (SD = 1.31). C Q33: Health education is important in teaching about healthy internet use has an average of 2.67 (SD = 1.42). The observations for C Q34: Educational books and posters aid in the reduction of cyber dependency has an average of 2.86 (SD = 1.46). Variable skewness and kurtosis are evident in table 4

Table 4. Summary statistics for cyber dependence

Variable	M	SD	N	Min.	Max.	Skewness	Kurtosis
C_Q4	3.45	1.29	438	1.00	5.00	-0.52	-0.81
C_Q7	3.26	1.11	435	1.00	5.00	-0.41	-0.45
C_Q9	2.97	1.14	437	1.00	5.00	-0.11	-0.71
C_Q10	2.80	1.32	439	1.00	5.00	-0.08	-1.28
C_Q11	2.90	1.36	438	1.00	6.00	-0.04	-1.23
C_Q12	2.80	1.48	440	1.00	5.00	0.05	-1.46
C_Q13	2.74	1.36	439	1.00	5.00	0.09	-1.26
C_Q18	3.07	1.31	439	1.00	5.00	-0.17	-1.09
C_Q19	2.94	1.32	436	1.00	5.00	-0.01	-1.19
C_Q20	3.06	1.31	435	1.00	5.00	-0.16	-1.13
C_Q25	3.11	1.27	438	1.00	5.00	-0.13	-0.97
C_Q26	2.87	1.37	438	1.00	5.00	0.02	-1.29
C_Q27	3.25	1.28	438	1.00	5.00	-0.32	-0.93
C_Q28	2.94	1.28	438	1.00	5.00	-0.18	-1.09
C_Q29	2.95	1.19	437	1.00	5.00	-0.19	-0.82
C_Q31	3.17	1.42	439	1.00	5.00	-0.24	-1.26
C_Q32	2.83	1.31	439	1.00	5.00	-0.01	-1.19
C_Q33	2.67	1.42	438	1.00	5.00	0.33	-1.23
C_Q34	2.86	1.46	440	1.00	5.00	0.05	-1.40

4.3 Testing Gender

The independent samples t-test result was significant, t (436) = -2.03, p =.043, indicating that the mean was significantly different between the male and female gender categories. The mean in the male gender category was significantly lower than the mean in the female gender category. The results of the independent samples t-test are shown in Table 5.

Table 5. Independent samples t-test for the difference between male and female

Variable	Male		Female		t	p	d
	M	SD	M	SD			
TOT1	2.88	0.92	3.07	1.00	-2.03	.043	0.20

Note. Degrees of Freedom for the t-statistic = 436.   d represents Cohen's d.

4.3.1 Independent Samples t-Test

The independent samples t-test result was significant, t (436) = -2.95, p =.003, indicating that the mean was significantly different between the male and female gender categories. The male gender category's mean was significantly lower than the female gender category's mean. The results of the independent samples t-test are shown in Table (6).

Table 6. Independent samples t-test for the difference between male and female

	Male		Female				
Variable	M	SD	M	SD	t	p	d
TOT2	3.01	0.79	3.24	0.82	-2.95	.003	0.28

Note. Degrees of Freedom for the t-statistic = 436.   d represents Cohen's d.

4.4 Testing the Year of Study Analysis

At the 95 percent confidence level, the overall model is significant, F (3, 435) = 9.88, p.001 (Table 7). This suggests that there were significant differences depending on the year of study. Table 8 shows the means and standard deviations, in addition to Tukey post hoc tests were used to determine the mean differences by group.

Table 7. Analysis of variance table for the year of study

Variable	Df	SS	MS	F	p	η^2
Year of study	3	26.08	8.69	9.88	< .001	0.06
Residuals	435	382.79	0.88			

Table 8. Means and standard deviations for the year of study

Year of study	M	SD	n
Freshmen	3.05	0.96	85
Junior	2.89	0.88	140
Senior	2.66	1.00	98
Sophomore	3.33	0.93	116

4.5 Post-Hoc Comparisons

T-tests were calculated between each pair of measurements to further investigate the differences between the variables. To account for multiple testing, a Bonferroni p-value correction was used. First Year (M = 3.05, SD = 0.96) had a significantly higher mean value than Fourth Year (M = 2.66, SD = 1.00). Fourth Year (M = 2.66, SD = 1.00) had a significantly lower mean value than Second Year (M = 3.33, SD = 0.93). Third Year (M = 2.89, SD = 0.88) had a significantly lower mean value than Second Year (M = 3.33, SD = 0.93) in table 8.

4.6 Analysis of Variance

An analysis of variance (ANOVA) was performed to see if there were any significant differences in the year of study. At the 95 percent confidence level, the overall model was significant, F (3, 435) = 6.55, p.001 (Table 9). This suggests that there were significant differences in the study year. In, the means and standard deviations are shown (Table 10). Tukey post hoc tests were used to determine the mean differences by group.

Table 9. Analysis of variance table for year_of_study

Variable	df	SS	MS	F	p	η^2
year_of_study	3	12.42	4.14	6.55	< .001	0.04
Residuals	435	275.01	0.63			

Table 10. Means and standard deviations for the year_of_study

year_of_study	M	SD	n
First Year	3.19	0.83	85
Third Year	3.05	0.74	140
Fourth Year	2.93	0.86	98
Second Year	3.38	0.77	116

4.7 Post-Hoc Comparisons

T-tests were calculated between each pair of measurements to further investigate the differences between the variables. To account for multiple testing, a Bonferroni p-value correction was used. Fourth Year (M = 2.93, SD = 0.86) had a significantly lower mean value than Second Year (M = 3.38, SD = 0.77). Third Year (M = 3.05, SD = 0.74) had a significantly lower mean value than Second Year (M = 3.38, SD = 0.77).

5. Conclusion

The study discovered that cyber dependency has a significant impact on young users. It showed that there exists high reliance on the Internet use that negatively impacts young user's health and well-being. Females were found to be less dependent on technology than males, and they are more likely to engage in behaviors that have a direct impact on their well-being. In terms of major user's perceptions of the Internet showed that "arts" students perceived higher cyber dependence. It's also clear that "arts" students use cybertechnology more than "tech" students. Furthermore, "arts" students admit that they are experiencing cyber dependency and that it is affecting their well-being and causing them various health problems.

The internet is becoming increasingly important in the collection of information and the exchange of knowledge. Because cyber usage is now regarded as a vital part of teen culture, it is critical to investigate both its positive and negative aspects. This necessitates investigation into the various types of technology usage and psychological characteristics of teenagers in relation to the negative aspects of Cyber dependence and the factors that trigger it. Kraut et al. (2002) discovered similarities between drug abuse, computer addiction, obsession, and pathological Cyber use. There is no official medical diagnosis of cyber dependency. For that reason, it is critical to determine whether this type of addiction can be classified using standardized diagnostic criteria. Fields et al., (2003) advocate for the establishment of intervention programs to prevent Cyber dependency among adolescents, particularly in colleges, where they spend much of their time.

Because schools are frequently on the front lines of identifying potentially life-threatening behaviors, health care practitioners, particularly school nurses, must be aware of risky behaviors associated with excessive use of cyber technology (Hussmann, 2007).

5.1 Future Research

As evident in this research younger users are experiencing cyber dependent, this was especially evident in the first year of study, as it showed the highest dependence Among students. More research is needed into user's perceptions of cyber dependency especially the younger generation. According to Shotton (2008), Internet dependent users are a diverse community that is rapidly increasing. As a result, various types of technology dependence may also emerge. As a result, future research should focus on what young users excessively use, and the type of activities in which the person participates in.

Several factors, according to Anderson and Bushman (2002), can contribute to cyber reinforcing. According to Bushman and Anderson (2001), different types of cyber dependent behaviors should be investigated. Furthermore, it has become clear that other psychological development conditions, such as depression, and stress, and other psychiatric problems may all play a role in the development of cyber dependence among young users. Such implications should be investigated and highlighted in future studies.

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