

Exploration of Internet Usage, Procrastination and Psychological wellbeing of undergraduate students

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Abstract

Background: A future without internet is highly impossible. Adolescents are sometimes forced to use internet for study purposes. Though there are positive outcomes due to technological advancement, its negative consequences also need to be considered. The effects of excessive use of internet can lead to procrastination causing poor psychological wellbeing.

Objective: The aim of the study is to find out the possible correlation between internet usage, procrastination and psychological well being of undergraduate students at Salem, Tamilnadu.

Methods: A survey method was used for the study and the data were collected using internet usage scale (IUS), procrastination scale (PS) and scales of psychological wellbeing (SPWB). This descriptive study involved 2993 sample (17-20 years of age) selected by simple random sampling from the undergraduate student population in and around Salem, Tamil Nadu. The Pearson's correlation coefficient was used to calculate the correlation between the variables.

Results: A significantly positive correlation was found between the internet usage test scores and the procrastination test scores. A negative correlation was found between the internet usage scores and psychological wellbeing scores.

Conclusion: The internet is seductive and potentially problematic element to be considered and should have a controlled use of it. Internet is provided in abundance and is easily accessible and the illogical use of the internet makes it be quite dangerous, especially for young users. Precautionary measures should be taken.

Keywords: Internet Usage, Procrastination, Psychological Wellbeing, Adolescents

I. INTRODUCTION

Internet cannot be separated from humans in this modern world. It is the most easily accessible media to adolescents nowadays in the name of academic and other purposes has compelled to use it more and more. It has not only become an ubiquitous thing but also has literally become an indispensable modern day tool for everything. This has resulted in the emergence of a relatively troublesome phenomenon called "Internet addiction," which is increasingly affecting adolescents. The effects of internet usage on physiological and psychological health are tremendous. The effect on psychological health in these vital years of life definitely inhibits productivity and scholastic performances of young adults/adolescents (Saikia, Das, Barman & Bharali, 2019).

Adolescents with a strong inclination for irrational task delay may be particularly prone to use internet in an insufficiently controlled fashion. Insufficiently controlled internet usage may thus increase the poor psychological well being that have frequently been associated with procrastination. Internet usage is connected with impaired psychological performance among adolescents (Muller et al., 2018). There is several studies state about the negative influence of procrastination on psychological functioning (Sirois, & Pychyl, 2016; Reinecke, Meier, Beutel, Schemer, Stark, Wölfling, & Müller, 2018).

College going adolescents are more likely forced to use internet for their study purpose where in some places that is the first time the adolescents from rural area use the internet (Macarie, Ștefănescu, Tebeanu, & Chele, 2012; Alzeftawy, Amaal & Elmezayen, Samira, 2017). Due to the peer group influence and also the free Wifi availability students are more prone to be online always (Zhao, Lu, Wang, & Huang, 2011). Apart from the studies they learn to use all the facilities available through internet like online shopping, online games as a group with friends, booking facilities like cinema, train, bus, etc., watching videos, social networking sites, etc. They start with the study purpose and later it becomes their full time job to be online, thinking that everything can be done with internet (Datta, Datta, Karmakar, & Nag, 2016). Adolescence is a period of confusion and turmoil where they want to create an identity through online (Lee, Ho, & Lwin, 2017). Internet is seen as the underlying formula for their every success and there is no success without the internet. This is one of the false justification adolescents feed to their excessive use of internet. The severity of internet usage makes them to postpone not only their academic tasks but also their personal tasks.

In view of this, the present study is undertaken with the following objectives:

1. To measure the internet usage, procrastination and psychological wellbeing of adolescents.
2. To explore the relationship between internet usage, procrastination and psychological wellbeing.
3. To find out the significant differences, if any, in internet usage, procrastination and psychological well being with regard to demographic variables.

1.1 Hypotheses

1. H_a : There will be a significant difference in the internet usage, procrastination and psychological wellbeing on the basis of gender.
2. H_a : There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of course of study.
3. H_a : There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of year of study.
4. H_a : There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of age.
5. H_a : There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of mode of internet usage.
6. H_a : There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of internet usage in hours.
7. H_a : There will be a significant relationship between the internet usage, procrastination and psychological wellbeing.

II. METHODOLOGY

2.1 Sample

The sample for the present investigation consisted of 2993 undergraduate students/adolescents (1390 males and 1603 females), age ranging 17 to 20 years randomly selected from degree colleges at Salem respectively.

2.2 Research Design and Data Analysis

The present investigation is a quantitative assessment. This study adopted normative survey method which is descriptive and associational in nature. The quantitative data was collected and Statistical Package for Social Science (SPSS) version 23 was used for the analysis. Appropriate statistics was used such as Independent sample "t"

test, Correlation, ANOVA etc. to assess the relationship between the internet usage, procrastination and psychological well being.

2.3 Tools

Internet Usage Scale (IUS): IUS was compiled by Robinson and Mukundan (2016). The scale has 52 items on a five point Likert scale from “Never” to “Always”, containing five dimensions: Used for mailing and texting, Used for SNS and Apps, Used for entertainment, Used for browsing sexual sites, Internet usage and its influence on behavior. The Cronbach’s alpha was employed to standardize the IUS scale and the reliability value is 0.932. The reliability for IUS was found to be 0.867. Validity for the IUS was found to be 0.743.

Procrastination Scale: 20-item General Procrastination scale was compiled by Lay (1986). It is self-reported five point Likert scale (Extremely uncharacteristic= 1, moderately uncharacteristic= 2, Neutral=3, Moderately uncharacteristic =4 and Extremely uncharacteristic= 5). The original scale’s Cronbach’s alpha was .82 and it has demonstrated a retest reliability of .80 (Ferrari, 1989).

Scales of Psychological Well Being (SPWB): SPWB was compiled by Ryff and Keyes (1995). The scale has 18 items on seven point Likert scale from “Strongly agree” to “Strongly disagree”, containing six dimensions: Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life and Self-Acceptance.

III. RESULTS & DISCUSSION

The present study attempted to assess the relationship between the internet usage, procrastination and psychological wellbeing of undergraduate students/adolescents.

Table-1 Internet usage, procrastination and psychological wellbeing of college students with regard to gender

Variables	Male (N=1390)		Female (N=1603)		t-value
	M ₁	SD ₁	M ₂	SD ₂	
Internet Usage	191.76	57.47	177.76	69.75	5.93*
Procrastination	70.54	15.91	74.33	18.52	5.96*
Psychological wellbeing	50.81	36.70	49.86	36.98	0.70 ^{NS}

*Significant at 0.05 level, NS – Not Significant, M-Mean, SD- Standard Deviation

H_a: “There will be a significant difference in the internet usage, aggression and psychological wellbeing on the basis of gender”.

From table 1 it is found that the “t” values are significant for the internet usage and procrastination and not significant for psychological wellbeing on the basis of gender. So the hypothesis is partially confirmed. It is concluded that the male and female participants differ significantly in internet usage and procrastination, not in psychological wellbeing. Male participants are the high users of internet (191.76) which means male use internet more than female (177.76). Female procrastinate (74.33) more than male.

Table-2 Internet usage, procrastination and psychological wellbeing of college students with regard to course of study

Variables	Arts (N=1520)		Science (N=1473)		t-value
	M ₁	SD ₁	M ₂	SD ₂	
Internet Usage	185.51	63.47	182.97	65.96	1.07 ^{NS}
Procrastination	72.59	17.38	72.54	17.54	0.84 ^{NS}
Psychological wellbeing	50.13	36.65	50.47	37.05	0.25 ^{NS}

NS – Not Significant, M-Mean, SD- Standard Deviation

H_a: “There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of course of study”.

From table 2 it is found that the “t” values are not significant for the internet usage, procrastination and psychological wellbeing on the basis of course of study. Hence the hypothesis is not confirmed. It is concluded that

there is no significant difference in internet usage, procrastination and psychological wellbeing with regard to course of study. There was no difference between arts and science students which means they are same in internet usage, procrastination and psychological wellbeing. Even though there is no significant difference in any of the variables but the arts students have little high mean score in internet usage (185.89) than the science students.

Table-3 Internet usage, procrastination and psychological wellbeing of college students with regard to year of study

Variables	First Year (N=976)		Second year (N=1068)		Third Year (N=949)		F-value
	M ₁	SD ₁	M ₂	SD ₂	M ₃	SD ₃	
Internet Usage	156.80	63.74	199.76	54.48	195.06	67.33	144.38*
Procrastination	69.52	16.88	76.77	17.93	70.97	16.58	51.45*
Psychological wellbeing	52.23	37.87	49.69	36.76	49.00	35.82	2.08 ^{NS}

*Significant at 0.05 level, NS – Not Significant, M-Mean, SD- Standard Deviation

H_a: "There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of year of study".

From table 3 it is found that the "F" values are significant for the internet usage and procrastination and not significant for psychological wellbeing on the basis of year of study. Hence the hypothesis is partially confirmed. It is concluded that the first year, second year and third year students differ significantly in internet usage and procrastination, not in psychological wellbeing. Psychologically all the year students had same kind of wellbeing whereas internet usage and procrastination had significant difference according to the individual's scores. The second year students have high mean score in internet usage (199.76) and procrastination (76.77). Third year students have low psychological wellbeing mean score (49.00).

Table-4 Internet usage, procrastination and psychological wellbeing of college students with regard to age

Variables	17 year (N=782)		18 year (N=774)		19 Year (N=776)		20 year (N=661)		F-value
	M ₁	SD ₁	M ₂	SD ₂	M ₃	SD ₃	M ₄	SD ₄	
Internet Usage	168.71	65.04	180.17	63.56	204.90	58.88	183.36	66.07	44.11*
Procrastination	70.13	16.70	72.51	17.65	75.53	17.78	72.06	17.24	12.87*
Psychological wellbeing	51.81	37.91	49.32	37.06	49.55	36.05	50.30	36.25	0.73 ^{NS}

*Significant at 0.05 level, NS – Not Significant, M-Mean, SD- Standard Deviation

H_a: "There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of age"

From table 4 it is found that the "F" values are significant for the internet usage and procrastination and not significant for psychological wellbeing on the basis of age. Hence the hypothesis is partially confirmed. It is concluded that the age group differ significantly in internet usage and procrastination, not in psychological wellbeing. High level of mean score lies in the age group of 19 for internet usage (204.90) and aggression (75.53). Low mean score for psychological wellbeing lies in the age group of 18 (49.32)

Table-5 Internet usage, procrastination and psychological wellbeing of college students with regard to mode of internet usage

Variables	Computer/Laptop (N=66)		Smartphone (N=2394)		Both (N=533)		F-value
	M ₁	SD ₁	M ₂	SD ₂	M ₃	SD ₃	
Internet Usage	145.98	72.79	185.24	64.73	184.61	62.21	11.91*
Procrastination	66.70	18.54	72.66	17.49	72.90	17.08	3.86*
Psychological wellbeing	50.47	38.16	50.53	36.83	49.25	36.84	0.26 ^{NS}

*Significant at 0.05 level, NS – Not Significant, M-Mean, SD- Standard Deviation

H_a: "There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of mode of internet usage".

From table 5 it is found that the "t" values are not significant for the psychological wellbeing and significant for internet usage and procrastination on the basis of mode of internet usage. Hence the hypothesis is partially confirmed. It is concluded that the mode of internet usage differ significantly in internet usage and procrastination, not significant for psychological wellbeing with regard to mode of internet usage. Participants those who use Smartphone and both computer and Smartphone got the high mean score in internet usage (185.24 & 184.61) and in procrastination (72.66 & 72.90)

Table-6 Internet usage, procrastination and psychological wellbeing of college students with regard to internet usage in hours per day

Variables	Less than 1hr (N=692)		1-2 hrs (N=736)		2-3hrs (N=729)		More than 3 hrs (N=836)		F-value
	M ₁	SD ₁	M ₂	SD ₂	M ₃	SD ₃	M ₄	SD ₄	
Internet Usage	154.85	75.16	183.63	65.20	195.69	57.99	199.19	51.01	75.30*
Procrastination	68.79	16.77	73.00	17.13	74.44	17.42	73.69	17.88	15.11*
Psychological wellbeing	51.43	38.01	49.48	36.86	49.08	36.16	51.15	36.45	0.75 ^{NS}

*Significant at 0.05 level, NS – Not Significant, M-Mean, SD- Standard Deviation, N-Total sample

H_a: "There will be a significant difference in internet usage, procrastination and psychological wellbeing on the basis of internet usage in hours".

From table 6 it is found that the "F" values are significant for the internet usage and procrastination and not significant for psychological wellbeing on the basis of internet usage in hours per day. Hence the hypothesis is partially confirmed. It is concluded that the internet usage in hours differ significantly in internet usage and procrastination, not in psychological wellbeing. Participants who were using internet for more than 3 hours got high mean score in internet usage (199.19) and those who use 2-3 hours got high mean score of procrastination (74.44).

Table-7 Internet usage, procrastination and psychological wellbeing of college students with regard to internet usage in hours

Variables	Aggression	Psychological wellbeing
Internet Usage	.414**	-.113**

** Correlation is significant at the 0.01 level

H_a: "There will be a significant relationship between the internet usage, procrastination and psychological wellbeing".

From table 7 it is found that there is highly significant relationship between the internet usage, procrastination and psychological wellbeing. Hence the hypothesis is confirmed. It is concluded that the internet usage is positively correlated with procrastination which means when the level of internet usage increases, the level of procrastination also increases and internet usage is negatively correlated with psychological wellbeing which indicates that when the level of internet usage increases then the level of psychological wellbeing decreases.

IV. CONCLUSION

Findings of the present study revealed that there is a significant relationship between the internet usage, procrastination and psychological wellbeing of undergraduate students/adolescents. Results further indicate that the students who have high scores in internet usage are found to have negative effects both in procrastination and psychological well being. Students those who got low score in internet usage are found to have positive effect in psychological wellbeing. Therefore, one can conclude from the present investigation that internet usage can be beneficial to students in their academic set-up and may not cause potential harm to their mental health if used in moderation. However, more comprehensive research is needed on diverse sample to substantiate the same. Users should be aware of the information at the websites, so that to make sure a proper behavior and restriction to the excessive use of it.

4.1 Recommendations

Research conducted across the world strongly indicates that adolescence is a period of identity and confusion, fifth stage of ego according to Erik Erikson's theory of psychosocial development. Taking that into consideration since the sample of our study (17-20 year undergraduate students) consisted of an age group that could be more prone to getting addicted to the internet and making wrong use of it, here are a few suggestions that can be used as precautionary measure to guard against the same:

- Parents and significant others have to monitor the contents of internet surfing.
- Duration of the internet browsing must be followed.
- Students can be encouraged to use internet in an open place/s.
- Infected/unwanted websites must be blocked.
- Sites developers need to identify and define the age groups strictly.
- A strict time management can be followed.

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