

## **Whatsapp Addiction and Its Relationship with Academic Procrastination among Secondary School Students**

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### **Abstract**

Social media has become part and parcel of students' life. Among different social media, students are crazier about WhatsApp and they spend most of their time in using it. But over usage of WhatsApp poses health as well as education risk to students. It is important to assess usage of WhatsApp and educational risk associated with it. Hence, a study was conducted among secondary school students to analyze the relationship between WhatsApp addiction and academic procrastination and possible differences according to gender and type of school. Using a quantitative approach, 300 participants were selected by random sampling from the secondary schools of Amritsar and measured on scales of WhatsApp addiction and academic procrastination. Data were submitted to descriptive, t-test and correlational statistical analyses. Analyses provide insight into no statistically significant differences in WhatsApp addiction according to gender and type of school. However, the results show statistically significant difference in academic procrastination tendencies with respect to gender and type of school. In addition, the Correlation Analysis conducted to determine participants' WhatsApp addiction and academic procrastination levels was examined and no statistical significant relationship was found.

**Keywords:** WhatsApp addiction, Academic procrastination, Social media, Secondary school students

### **INTRODUCTION**

E-learning and m-learning are becoming popular terms in the field of education. So various social media and its applications like WhatsApp, Instagram, Facebook etc. are occupying prominent place in the life of students. Among these, WhatsApp has swiftly grown from a small startup to one of the most popular messaging apps in the world. In the view of Iqbal (2020), statistics available, have revealed that 1.5 billion users of WhatsApp in 180 countries make it the most-popular messaging app in the world and India is the biggest WhatsApp market in the world, with 200 million users. Due to this, students, whether higher classes or lower classes are more addicted to Smartphone's like WhatsApp, twitter, Facebook (Kibona & Mgaya, 2015). Among student community, young people and adolescents are more addicted to internet and social media (Can & Zeren, 2019; Ozgenel, Canpolat & Eksi, 2019).

WhatsApp provides the platform to connect the people of common interests and concerns all around the world. It allows its users to communicate free in a simple, secure and reliable manner through

various media, text, photos, videos, documents as well as voice calls (WhatsApp, Inc. 2017; Hess, 2017). Due to these characteristics, adolescents have become crazy of WhatsApp. They feel confident and comfortable in using this app and ensure its effective use in learning. WhatsApp enhances social skills, foster learning and helps to learn new things in new ways. Zanamwe, Rupere & Kufandirimbwa (2013) explored the benefits that students acquire from using such technology. According to them, WhatsApp encourages collaborative problem solving ability, brings improvement in creativity, technology proficiency and receptivity to new ideas. Due to its benefits, students are becoming crazier and they spend most of their time in using it.

In spite of above mentioned benefits, its persistent and excessive use by students has led to impairment and negative repercussions. Poor control in using WhatsApp has ill effects on students such as aloofness from social activities, distract studies, creates watchdog, imaginative gossip collection, Borderline Personality Disorder (BPD) and even emotion regulations are also the risk factor of WhatsApp addiction (Chan & Leung, 2016). Students have more interest in virtual world as compared to real world as their entire emotions remain confined to this app only. Social networks grab total attention and concentration of students and divert their minds towards activities that are not academic and appropriate. Students waste their time on useless chatting, random searching and not doing their jobs (Kuppuswamy & Shankar, 2010).

Researchers have investigated number of factors that influence the adoption of WhatsApp among students and make them addict to it. Students integrate WhatsApp into learning due to their personal characteristics (Schiller, 2003), attitudes towards technology (Huang and Liaw, 2005) and availability and accessibility to ICT infrastructures and resources (Plomp, Anderson, Law, & Quale, 2009). Furthermore, positive attitude of students towards the use of technology in the educational field make the adoption and integration of this app easy into learning (Buabeng-Andoh, 2012).

No doubt, WhatsApp has made students' virtual life thrilling but they have to be protected from its addiction for their holistic development as its addiction has profound negative impact on youth and adversely affects their education, behavior and routine lives (Bhatt & Arshad, 2016). Due to its exciting experiences, students excessively use WhatsApp and sometimes they spend whole day on the activities of WhatsApp. Due to mismanagement of time, they get less time for study and as a result they procrastinate academically. In the view of Schraw, Wadkins & Olafson, 2007, academic procrastination means to intentionally delaying or deferring work that should be accomplished. Academic procrastination is a function of the behavioral output that is why students put off the action or the cognitive output (Dewitte & Lens, 2000).

Many studies have shown that WhatsApp has a profound negative impact on students' academic life such as distracts students from completing their assignments and they submit the assignment late (Mingle & Adams; 2015; Sarker, 2015), spoils their spellings and grammatical construction of sentences (Yeboah & Ewur, 2014), lack of concentration during lectures, hard to balance online activities and academic preparation, poor academic performance due to the heavy participation on social media networks (Yin, 2016; Chavan, 2018). Academic procrastination not only has harmful impact on academic achievement including lower grades, cheating and lower grade point averages (Beck, Koons, & Milgrim 2000) but also influences individual's well-being (Jorke, Thau, & Fries, 2011). It has adverse effects on human health too as it is negatively related to self-efficacy and life

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satisfaction and positively related to stress and mental health (Klingsieck, 2013), depression (Solomon & Rothblum, 1984), anxiety (Stober & Joormann, 2001), guilt (Pychyl, Lee, Thibodeau, & Blunt, 2000) and low self-esteem (Ferrari, 2000).

From the above plethora of research, it is evident that WhatsApp addiction has emerged as one of the important behavioral addictions (Faye, Gawande, Tadke, Kirpekar & Bhave, 2016) having numerous undesirable consequences on students' life in the field of education. Being important concern among student community, WhatsApp addiction need more research to be conducted in this area.

## *Aim of the study*

This study was conducted with the aim to examine the relationship between WhatsApp addiction and academic procrastination of secondary school students and to put forward suggestions in accordance with the findings. This study sheds light whether or not WhatsApp addiction is responsible for academic procrastination by investigating the following research questions:

1. Are there any differences in the WhatsApp addiction and academic procrastination according to gender and type of school of secondary school students?
2. Is there a statistically significant relationship at the level of significance between WhatsApp addiction and academic procrastination among Secondary School students?

## **METHODOLOGY**

### *Study Model*

This study uses a survey model to investigate the WhatsApp addiction and academic procrastination in Secondary School students and possible relationships among these two variables.

### *Study Group*

The study group consisted of 300 Secondary School students from different schools in Amritsar province. For the study, simple random sampling was preferred in determining the samples in order to increase generalizability and to ensure an equal chance of being selected (Arikan, 2004). The study group comprised of 150 boys and 150 girls belonging to private and government schools. The participants were all aged from 14 to 16.

### *Data Collection Tools*

The data of the study was collected with WhatsApp addiction Scale developed by the researchers of the study and Kalia and Yadav Academic Procrastination Scale.

### **WhatsApp addiction Scale**

The researchers developed a scale of 14 items. Participants rated each item on a five-point scale, from 1 ('strongly disagree') to 5 ('strongly agree'). Higher scores reflect a higher level of WhatsApp addiction. The researchers extracted the validity and reliability. The scale was validated against the criterion of content validity. Test-retest method was used to calculate the reliability co-efficient of the

Whatsapp Addiction scale. The product moment coefficient of correlation for the two scores was computed. The coefficient of reliability between two scale scores was found to be 0.89.

### **The Academic Procrastination Scale (APS):**

The researchers conducting this study used Academic Procrastination Scale (APS) developed by Kalia and Yadav (2005). The scale is comprised of 25 items, each of which participants rated on a five-point scale, from 1 ('strongly disagree') to 5 ('strongly agree'). Higher scores reflect a higher tendency of academic procrastination. The odd items versus even items were correlated using Spearman Brown Split Half method and Guttman's Split Half method. The test – retest coefficient was .843 and Guttman Split Half coefficient was .713 suggesting the high reliability of the scale (Academic Procrastination Test-retest reliability was .84 and Guttman Split half reliability was .71). The validity of the Academic Procrastination Scale constructed was tested on the basis of face validity and content validity.

### **Data Collection**

After seeking approval from schools, data was collected on two measures: WhatsApp addiction and Academic Procrastination.

### **Procedure**

The study was conducted in Punjab, India in the private and government secondary schools of Amritsar city. Participants were randomly selected. Both scales; WhatsApp Addiction Scale and academic procrastination Scale were given to the students and the participants were asked to give the closest answer to the questions. After collecting the information from the students, the data were analyzed using (SPSS).

### **Data Analysis**

SPSS was used to analyse the data and to get the answers of above mentioned questions mean, standard deviation, independent sampling t test and r analysis were calculated.

### **Findings**

In order to examine whether WhatsApp addiction and Academic Procrastination scores show differences in accordance with gender and type of school as variables or not, t-test was conducted and the findings are presented in Table 1 and 2.

**Table 1. t-test results regarding WhatsApp addiction and academic procrastination with respect to the gender**

<b>Variables</b>	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>S.D.</b>	<b>t-value</b>	<b>Remark</b>
WhatsApp addiction	Boys	150	37.93	9.37	1.79	p>.05
	Girls	150	36.09	8.32		
Academic procrastination	Boys	150	77.73	8.72	5.69*	p<.01)
	Girls	150	70.97	11.63		

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\* Significant at 0.01 level of confidence

From the Table 1, it can be seen that boys' WhatsApp addiction scores (37.93,  $\pm 9.37$ ) are higher than girls' WhatsApp addiction scores (36.09,  $\pm 8.32$ ). As per statistical analysis, the differences between boys' and girls' WhatsApp addiction scores are not statistically significant ( $t=1.79$ ;  $p>.05$ ). It may, therefore may be said that WhatsApp addiction does not varies according to gender. Similarly, the t-test was conducted to determine whether academic procrastination varies in terms of gender and significant differences were found. Boys' had higher academic procrastination scores (77.73,  $\pm 8.72$ ) than girls (70.97,  $\pm 11.63$ ) and the difference was found to be significant after performing analysis ( $t=5.69$ ;  $p<.01$ ). It means that boys procrastinate academic activities more as compared to their counterpart.

**Table 2. t-test results regarding WhatsApp addiction and academic procrastination with respect to the type of school**

Variables	Type of school	N	Mean	S.D.	t-value	Remark
WhatsApp addiction	Private	150	36.63	8.62	0.746	$p>.05$
	Govt.	150	37.39	9.17		
Academic procrastination	Private	150	75.63	11.27	2.05*	$p<.05$
	Govt.	150	73.08	10.20		

\* Significant at 0.01 level of confidence

The findings in the Table 2 show that the WhatsApp addiction scores (37.39,  $\pm 9.17$ ) of students of Government schools' are higher than the WhatsApp addiction scores of students of Private schools (36.63,  $\pm 8.62$ ). According to statistical analysis, the differences between WhatsApp addiction scores with regards to type of school were not statistically significant ( $t=0.746$ ;  $P>.05$ ). It may, therefore may be said that WhatsApp addiction levels of participants do not vary according to type of school. Furthermore, statistical analysis were performed to determine whether academic procrastination scores show differences in terms of type of school. Significant differences were found between academic procrastination scores of students of Private and government schools ( $t=2.05$ ;  $p<.05$ ). It means that significant difference in Academic procrastination exists between private and government secondary school students.

**Table 3. The results of relationship between WhatsApp addiction and Academic procrastination**

Variables	r
WhatsApp Addiction	.058
Academic Procrastination	

Table 3 shows no significant correlation between WhatsApp addiction and the academic procrastination of participants. The reason for this may be that it is not necessary that students procrastinate the academic activities duo to excessive use of technology. There are many other factors that are responsible for the delay of academic work such as family environment, school environment, intelligence and so on.

## ***DISCUSSION***

The present study was conducted with the aim to identify the relationship between WhatsApp addiction and academic procrastination of secondary school students.

In the study, no differences according to the gender variable between the use of participants on WhatsApp is found. This shows that both boys and girls have similar tendencies in using WhatsApp. Although Aifan (2016) revealed that females have more experience with WhatsApp as one of the web2.0 technologies but no study shows gender differences with respect to WhatsApp addiction. It means that WhatsApp users mostly spend time on WhatsApp to have fun. There was no research found in the literature to support this finding.

When academic procrastination scores are evaluated in terms of gender, it is indicated that boys have higher scores than girls. It means that the boys are at a greater risk for procrastination than girls. They are more likely to procrastinate academic tasks and assignments. So, boys should be motivated and checked more carefully than the girls. This correlates with the findings of Balkis and Duru (2017), Dominguez-Lara, Prada-Chapoñan, and Moreta-Herrera (2019), Ozer, Demir, & Ferrari (2009), Steel & Ferrari, (2013) which show that male students had higher level academic procrastination. This is probably due to impulsiveness connections that characterize men (Struber, Luck, & Roth, 2008), less self-regulated academic behavior of the men (Dominguez-Lara, & Campos-Uscanga, 2017; Khan, Arif, Noor & Muneer, 2014; Olea, & Olea, 2015) and students' characteristics Tuckman (1991).

Analysis shows no differences according to the type of school variable between the WhatsApp addiction. This might be because in present scenario, there is growing use of WhatsApp by teachers and students of private and government schools. They use technology for social and pedagogical advantages. WhatsApp has become the major form of communication among various student groups. Teachers use WhatsApp to interact with students in non-school hours (Bouhnik & Deshen, 2014). In the view of Kundu (2019), among private schools, there is a growing trend of creating WhatsApp groups through which students interact with teachers; teachers interact with parents to share the performance of their wards on a regular basis. The Union and many State Governments have decided to use WhatsApp as a policy tool. If Private schools take online classes for their students, the government schools have also found a way to reach out to the students from economically backward families: WhatsApp groups (Radhakrishnan, 2020). In consonance with above views, students of private and government schools use Whatsapp as it is less expensive and convenient to use. There was no relevant study in the literature to back this result.

Research findings further indicate significant difference in academic procrastination of government and private secondary school students. Manichander (2019) in his study indicated significant difference in the time management and task averseness of students in terms of type of college. Kumari and Reddy (2019) claim that Subjects with poor school environment ( $M=75.15$ ) have high academic procrastination than the subjects with good school environment. The reason behind these findings is that as students in private schools students use more technology as compared to government schools. They take more interest in other activities as compared to academics that delay their academic tasks.

Finally, the Correlation Analysis was conducted to determine relationship between participants' WhatsApp addiction and academic procrastination. Results showed no statistical significant

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relationships between two variables. From the findings, it can be asserted that the participants of this study are not in the risk group regarding their WhatsApp addiction and academic procrastination. This can be regarded as a positive result. However some studies on this issue (Yeboah & Ewur, 2014; Sarker, 2015; Chavan, 2018) revealed that WhatsApp use has taken much of study time of students and distracts them from completing their tasks.

## **CONCLUSION**

In the present scenario, usage of WhatsApp is becoming more widespread, precautions should be taken to ensure that teenagers take interest in real world and their social environment. Students spend more time on Whatsapp and develop undesirable study habits that affect their studies also. Over use of this application develop many problems like weight gain, back pain, neck, shoulder pain, blurred vision, eye fatigue. These problems affect students' ability of carrying out academic tasks. In order to avoid issues related to academic and health, parents must impose the restrictions on their wards on the usage of WhatsApp. In school also, environment should be supportive, responsive and congenial so that students may spend more quality time in school activities.

## **AUTHOR CONTRIBUTIONS**

Dr. Mandeep Kaur contributed to the survey, analysis, and write-up. Ms. Ravinder Kaur contributed to the data collection and calculations. Both authors approved the final version.

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### Figure Captions

Table 1 t-test results regarding WhatsApp addiction and academic procrastination with respect to the gender

Table 2 t-test results regarding WhatsApp addiction and academic procrastination with respect to the type of school

Table 3 The results of relationship between WhatsApp addiction and Academic procrastination