Impact of Social Media on Academic Performance

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ABSTRACT

Social media is a mode of communication, influencing nearly every field of life. Researchers have found that the use of social media can be addictive, which may cause significant impairment in various aspects of an individual's life. This study has been designed to investigate the impact of Social Networking on students' academic performance in Islamabad and Rawalpindi (Pakistan). This Cross-sectional study was conducted from April 2019 to February 2020. 385 students of age 15 to 25 years, enrolled in different educational institutes of twin cities were included in the study. Data was collected using self-designed Questionnaire. Analysis of data was performed using SPSS V.21. Total of 348 participants were included from different educational institutes of Rawalpindi and Islamabad city. Studies show that among youth, teen age group was more addicted to social networking and maximum participants were using social media for more than 3 years for just recreation or relaxation purpose. Though the results do not show statistical significance (Social Network Usage per 24 hours* Negative Effect of social networking on study timings p-value 0.061) but being close to the statistically significant figure, shows that somehow the fact that spending more time on social network has overall negative effect on academic's outcome. We cross tabulated, duration since using social network with social network usage/24 hours and found statistically significant association between it (i.e. p- value= 0.000) which shows that those who were using social media for longer duration are actually using it for no specific reason or fruitful purpose. Most of the subjects under study were females in both age groups. More time spent on social media in 24 hours affects the study timings negatively thus affecting the study outcome and academic results.

Keywords: Social Media, Academic Performance.

Published Online: October 30, 2020

ISSN: 2593-8339

DOI: 10.24018/ejmed.2020.2.5.512

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I. INTRODUCTION

Social media defined as producing, sharing, and collaborating content online. It includes a variety of applications such as social networking sites, virtual game and social worlds [1].

Social media is a means of communication which allows people to connect. It has influenced nearly every field of life as political, social, economic, and educational. Social media use been rapidly increasing during the last few years and is

being used by people all over the world especially the students [2]. Social media plays a central role in learning environments as a crucial communication network. Social media has many advantages in the educational field; it provides access to information, supports learning attitudes, provides social support, encourages self-learning and allows collective learning [3]. As Social networking use is becoming increasingly common; many concerns are being raised. Researchers have found that the use of Social media can be addictive, which may cause significant impairment in

various aspects of an individual's life [4], [5]. This SNS addiction is social media overuse which in the current study is taken as more than 2 hours of daily social media use.

Many studies have suggested a detrimental effect of social media on academic performance relating it to decreasing learning abilities, dropping homework completion, and worsening academic achievements [6]–[8]. It harms study timings resulting in a decrease in the daily amount of productive study time, causing a disadvantageous effect on student's academic performance. Johnson et al. have associated frequent SNS use with elevated risk for attention and learning difficulties [6]. Excessive visual media has resulted in substance abuse, problematic behavior, and risk-taking attitude, which also impair school performance [9]. The purpose of the current study is to investigate the impact of Social Networking (Facebook, WhatsApp, Instagram, Google, YouTube, Twitter, LinkedIn) on students' academic performance in Pakistan.

II. MATERIALS AND METHODS

This descriptive, cross-sectional study was conducted from April 2019 to February 2020; in which 385 youth of age 15 to 25 years enrolled in different educational institutes of twin cities that is Rawalpindi and Islamabad, Pakistan, were included in the study population. Students either don't have an android phone or don't have internet access were excluded from the study. Data were collected using a self-designed structured questionnaire distributed to students with a response rate of 100%. A descriptive analysis of the study variables was performed using SPSS v.21.0. Chi-Square Test was employed, and a p-value <0.05 was considered statistically significant.

III. RESULTS

The study was conducted in twin cities that are Rawalpindi and Islamabad of the Islamic Republic of Pakistan. In this study total of 348 participants were included from different educational institutes of the mentioned study setting. Studies show that among youth, the teenage group was more addicted to social media, and maximum participants were using social media for more than three years for just recreation or relaxation purpose. Statistics regarding demographics and general social media usage has been given in Table I and II and Fig. 1a, 1b.

TABLE I: DEMOGRAPHICS AND USE OF SOCIAL MEDIA

	Age	Level of Education	Duration of Social media usage	Social media usage per 24 hours	Purpose of using Social Media
Mode	16-20 years	Undergraduate	>3years	2-4 hours	As a source of recreation and relaxation
STD. Deviation	0.517	0.537	0.964	0.974	0.999

TABLE II: AGE AND LEVEL OF EDUCATION

Variable	Age			Level of Education			
	10-15	16-20	21-25	SSC	HSSC	Undergraduate	Postgraduate
Frequency	5	202	141	5	94	238	11
Percent	1.4	58.0	40.5	1.4	27.0	68.4	3.2

Fig. 1a. Graph showing Social media use.

Fig. 1b. Graph showing Purpose of using Social media.

We asked various questions from students to know the effect of social network addiction on their academic performance, schedule, and overall impact on studies. Also, we asked if they found social media of any help regarding academics and curricular activities.

A majority (89.4%) agreed that social networking sites be helpful regarding academics as they provide information and data regarding different topics, keep them updated, and through online learning and teaching practices provide greater scope. 78.7% of students were of the view that social networking increases research capabilities and helps in learning new information and makes it easy to publish the study while sitting at home.

However, 78% of students agreed on the fact that excessive and purposeless use of social networks has negatively affected the study schedule and time table by decreasing the net time for studies. More time spent on social networking sites affects the study timings in a negative sense, thus affecting the study outcome and academic performance. So overall, 71% of students agreed upon the fact that social networking addiction harms studies as it decreases the net time of studies and also, produces poor results.

Then we cross-tabulated duration since social network

use and social network usage/24 hours, respectively with the negative effect of social networking on study timings and impact of social networking on academic performance and found some interesting associations. Results being not statistically significant (duration of social network usage*impact on studies p-value 0.269; duration of social network usage*negative effect on study timings p-value

0.105; social network usage per 24 hours*impact on studies p-value 0.985; social network. usage per 24 hours* negative effect on study timings p-value 0.061) shows that neither duration of social network usage nor social network usage per 24 hours has any association with impact or negative effects on academic performance (Table IIIa, IIIb, IIIc and IIId).

TABLE III A: CROSS TABULATION OF IMPACT OF SOCIAL MEDIA ON ACADEMIC PERFORMANCE* DURATION OF SOCIAL MEDIA USAGE

		Duration of Social Media Usage				Total
		Less than 6 months	6 months - 1 year	1 year - 3 years	more than 3 years	
Impact of Social Media on Academic Performance	Positive	10	13	15	63	101
	Negative	19	22	57	149	247
Total		29	35	72	212	348

TABLE III B: CROSS TABULATION OF NEGATIVE EFFECT OF SOCIAL MEDIA ON STUDY TIMINGS* DURATION OF SOCIAL MEDIA USAGE

		Duration of Social Media Usage				Total
		Less than 6 months	6 months - 1 year	1 year - 3 years	more than 3 years	
Negative Effect of social media on study timings	Agree	23	22	60	168	273
	Disagree	6	13	12	44	75
Total		29	35	72	212	348

TABLE III C: CROSS TABULATION OF IMPACT OF SOCIAL MEDIA ON ACADEMIC PERFORMANCE* SOCIAL MEDIA USAGE PER 24 HOURS

		Social Media Usage per 24 hours				Total
		Less than 2 hours	2 - 4 hours	5 - 7 hours	more than 7 hours	
Impact of Social Media on Studies	Positive	29	37	23	12	101
	Negative	69	89	61	28	247
Total		98	126	84	40	348

TABLE III D: CROSS TABULATION OF NEGATIVE EFFECT OF SOCIAL MEDIA NETWORKING ON STUDY TIMINGS* SOCIAL MEDIA USAGE PER 24 HOURS

		Social Media Usage per 24 hours				Total
		Less than 2 hours	2 - 4 hours	5 - 7 hours	more than 7 hours	
Negative Effect of social media networking on study timings	Agree	69	102	66	36	273
	Disagree	29	24	18	4	75
Total		98	126	84	40	348

Though the results do not show statistical significance but being close to the statistically significant figure, shows that somehow the fact that spending more time on social media has an overall negative effect on the academic outcome.

We did cross-tabulate the purpose of using social media with the duration since using social media and social media usage/24 hours. We found a statistically significant association between duration since usage and purpose (p-value= 0.000) which shows that those who were using social media for longer duration are using it for no specific reason or fruitful purpose, they take social media as a source of time pass and recreation (Table IV).

IV. DISCUSSION

Social Media services are being used in various capacities for social, commercial and educational purposes. They not only enable communication but also offer possibilities to share user-generated content such as photos and videos and have features such as social games.

In the current study, we collected data from 348 students, all of whom were using Social media. The study included not only undergraduate students but also postgraduates, secondary school, and higher secondary school students, making it broad-based. This study confirmed that social networking sites are a prominent mode of communication among students, especially teenagers and this result is consistent with other studies showing that teenagers are among the most prolific users of social media [10], [11].

Youth spends a significant portion of their daily life on social media. In the current study, among 348 students, 36.2% reported the use of Social Media for 2-4 hours which is in line with the previous study results showing that most students use social media daily for more than 2 hours [10]. Another study by El-Badawy TA and Hashem Y also reported similar results showing a majority of students spending 1-3 hours on Social media [12]. This excessive use

is because students are accessing the internet through smartphones which have become quite affordable now. Additionally, given that the majority of students (60.9%) have been using social media for more than three years, Social Networking services have embedded themselves in the daily lives of students this is more than the time reported in an Indian study conducted in 2012 [13].

TABLE IV: CROSS TABULATION OF PURPOSE OF USING SOCIAL MEDIA* DURATION OF USING SOCIAL MEDIA

		Duration of Social Media Usage				
		<6 months	6 months – 1 year	1 year- 3 years	>3 years	Total
Purpose of using Social media	Socialize & make new friends	9	3	4	9	25
	Remain updated about trends	2	7	20	77	106
	Collaborate with fellow students & study	7	12	21	36	76
	As a source of recreation & relaxation	11	13	27	90	141
	Total	29	35	72	212	348

According to the current study, 40.5% of students use social media as a source of recreation and relaxation whereas 21.8 % of students use it for educational purposes which are less than the number in the study conducted by Waqas et al. and almost equal to study by Guraya SY [10], [14]. Nearly 90% of our respondents suggested that social media can help in academics and research. It is an encouraging finding as social media usage for academics at this stage means that these students are already knowledgeable about utilizing social media to exchange information and perform research. Another Pakistani study has reported comparable responses from students showing that Social media plays positive roles in academic activities [15]. In a recent study conducted among medical students in East India, the responders believe that proper use of Social media can positively impact academic performance [4]. Selwyn has commented that the use of SNS in education can be described by the fact that due to the advent of user-oriented learning, institutional learning has come to a standstill [16]. While 90% of students suggested that social media can be helpful in academics, 78% of the responders believe that purposeless use of social media has decreased the productive study time affecting academic performance. In studies conducted on students in Pakistan, excessive purposeless Social Networking results in poor academic performance [10], [17]. These results are consistent with studies conducted in Iran and West Bengal India showing similar results [3], [18]. However, El-Badawy and Hashem reported no significant relationship or difference between both the frequency of using social media with academic performance [12].

It can be said that excessive use of social media negatively affects the students' academic performance which is because excessive use of social media is associated with stress which further affects academic performance [19]. Uninhibited use of social media reduces study time, which has negatively affected the academic performance of students. People who spend much of their time on social media do not have enough rest resulting in poor sleep and

fatigue, which further results in decreased concentration and poor learning capabilities [20]. Further evidence indicates a substantial relation between the inappropriate use of technology and academic problems [21], [22].

Social media is not destructive, but rather the way it's used, determine positive and negative consequences. The current research has shown a significant association between the duration of usage and the purpose of using Social media, showing purposeless long-term use of Social media (p value=0.000). We could not find this correlation in any of the previous researches conducted locally as well as internationally. Social media is becoming increasingly enticing; students should keep in mind to use it appropriately and thoughtfully because it is possible to get addicted to it.

Overall, our data indicated that long term and purposeless use of Social media is detrimental to academic performance, but its appropriate use can benefit the students in academics as well as research. However, the current study has some limitations which include its cross-sectional design, which impedes establishing the causal direction of the observed associations, and the use of self-reported questionnaires.

Strengths of the study are that data were collected from different institutes and also from each level of education that is schools, colleges and universities.

V. CONCLUSION

Most of the subjects under study were females in both age groups. More time spent on social networking sites per 24 hours affects the study timings in a negative sense, thus affecting the study outcome and academic results.

VI. CONFLICTS OF INTEREST

In compliance with the ICJME uniform disclosure form, all authors declare the following:

- A. *Payment/services info*: All authors have declared that no financial support was received from any organization for the submitted work.
- B. *Financial relationships*: All authors have declared that they need no financial relationships at the present or within the previous three years with any organizations which may have an interest within the submitted work.
- C. *Other relationships*: All authors have declared that there are not any other relationships or activities that would appear to possess influenced the submitted work.

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