Social Networking Addiction and Quality of Academic Life among First-Year High School Students in Saudi Arabia: The Mediating Role of Academic Procrastination

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Abstract: Students with high levels of procrastination were unable to organize and achieve their academic goals. A student who procrastinates may face internal consequences such as low academic performance, bad learning habits, and low learning motivation. When he/she is unable to address procrastination, this will hinder his/her academic performance. The study group of the research consists of 258 boys studying in high schools in the Riyadh region in the 2019-2020 academic year. They aged 16-18 years, (M= 17.23,SD= 4.45). Social Media Addiction Scale - Student Form, High-School Satisfaction Scale, and Tuckman's procrastination scale –short form were used for gathering and analyzing data. Quality of academic life correlates negatively with social networking addiction and academic procrastination.

On the other hand, social networking addiction was found to be positively correlated with academic procrastination. Regression coefficients of the empirical model show that social networking addiction had a direct negative effect on the quality of academic life (b= -0.49, p<0.001) and a direct positive effect on academic procrastination (b=0.52, p<0.001). Results support previous research showing that social networking addiction negatively impacts academic achievement by creating academic procrastination, reducing sleep quality, and increasing academic stress. Evidence indicates a positive and significant correlation between inappropriate and problematic use of technology and quality of academic life. Procrastination may interrupt the academic performance, as procrastinators are likely to avoid completing the task at Hand until the last moment. They may also be unable to invest the time and effort necessary for performing as they underestimate the amount of time required for completing specific tasks.

Keywords: Social networking addiction, quality of academic life, first-year high school students, Academic Procrastination.

INTRODUCTION

Social networking sites such as Facebook, Twitter, and Instagram have grown rapidly and highly. With the development of IT, with the rapid proliferation of Internet-based social media (e.g., Facebook, WeChat, or Instagram), interpersonal communication has drastically changed [1-5]. The accessibility to the internet may lead to social networking addiction, that is, the irrational and excessive use of social networking to the extent that it interferes with other aspects of daily life [6]. According to "Digital 2020: Global Digital Overview", published in partnership with "We Are Social and Hootsuite", shows that digital, mobile, and social media have become an indispensable part of everyday life for people worldwide. More than 4.5 billion people are using the internet at the start of 2020, while social media users have passed the 3.8 billion mark. Nearly 60 per cent of the world's population is already online, and the latest trends suggest that more than half of the world's total population will use social media by the middle of this year.

Social networking sites may be regarded as a double-edged sword. They may bring people such great convenience and pleasure. On the one hand, it may cause some troubles; psychological problems, on the other hand, such as Social networking addiction, procrastination, and even may lead to some severe depressive symptoms [7].

Social Networking Addiction and Quality of Academic Life

In our Arab world, particularly in Saudi society, adolescent students are heavy users of the virtual world and social networks [8]. Adolescents are considered to be one of the major age groups for the use of social networking sites [9]. Literature is mixed concerning the effect of overuse of social networks on students' academic, social, and health. Upadhayay and Guragain [10] found that students who overused social networks and the internet had poor academic achievement and low levels of concentration in the classroom. Another study [11] showed that students who were addicted to social networking, compared to other ones, had Grade Point Average (GPA). The results of Azizi, Soroush & Khatony's study [12] showed negative and significant relationships between students' addiction to social networking and their academic performance. Meanwhile, Victor *et al*. [13] revealed that social networking significantly impacted students' academic performance. Pearson's correlation coefficient revealed a significant relationship between

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social networking addiction, academic performance, health, and social well-being of students. With consideration to the abovementioned literature, this study intends to verify the following hypothesis:

H1. Social networking addiction negatively predicts the quality of academic life.

Social Networking Addiction and Academic Procrastination

A growing body of research [e.g., 14-17] indicated a positive correlation between social media and internet addiction and academic procrastination. Other studies conducted with secondary school students [e.g., 18-20] revealed positive relationships between the students' attitudes towards Facebook and their academic procrastination behaviours. Another study by Gürültü [21] with high school students reported a positive correlation between social media addiction and academic procrastination behaviours. Additionally, some researchers [e.g., 14, 15, 19, 20-23] found that social media addiction increases academic procrastination. With consideration to the abovementioned literature, this study intends to verify the following hypothesis:

H2. Social networking addiction positively predicts academic procrastination.

Academic Procrastination and Quality of Academic Life

Academic procrastination has a negative effect on learning, achievement, academic self-efficacy, and quality of academic life. It is fairly commonplace among adults as well as students at high school and college levels [24, 25]. Students who procrastinate have also claimed that their procrastination has a significant impact on their academic life, ability to understand class material, and the overall quality of their lives [24]. Some researchers [e.g., 17, 26-28] concluded that there was a significant negative relationship between

procrastination, life satisfaction, and students' quality of academic life. Procrastinators reported lower life satisfaction and quality of academic life [29]. There was a significant negative relationship between academic procrastination and academic achievement in medical students [30]. With consideration to the abovementioned literature, this study intends to verify the following hypothesis:

H3. Academic procrastination negatively predicts the quality of academic life.
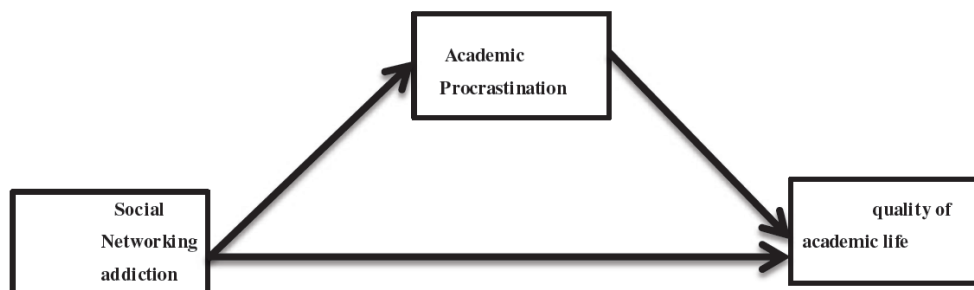
Academic Procrastination as a Mediator

Gustavson and Miyake [31] reported that students with high levels of procrastination were unable to achieve their academic goals. A student who procrastinates may face internal consequences such as low academic performance, bad learning habits, and low learning motivation. When he/she cannot address procrastination, this will hinder his/her academic performance [32-35]. Servet [36] found the partial mediating effect of academic procrastination in the relationship between social media addiction and academic success, but statistically significant. Both social media addiction and academic procrastination significantly explained 43% of the variance in academic success.

With consideration to the abovementioned literature, this study intends to verify the following hypothesis:

H4. Academic procrastination mediates the relationship between social networking addiction and the quality of academic life.

Accordingly, it can be noted that academic procrastination mediates the relationship between social networking addiction and the quality of academic life among first-year high school students. Thus we assume the following model for this relationship and mediating role, as depicted in (Figure **1**).

Figure 1: Relationships among Social networking Addiction, Academic Procrastination, and quality of academic life.

METHOD

Design

For this study, quantitative survey research was employed. The independent variable is social networking addiction, quality of academic life is the dependent variable, and academic procrastination is the moderating variable.

Participants

In order to meet the primary objective, only higher secondary students (grades 1-3) were considered for data collection. The study group of the research consists of 258 boys students studying in high schools in the Riyadh region in the 2019-2020 academic year. They aged 16-18 years, (M= 17.23, SD= 4.45). Before subjecting the participants to the electronic survey, a request was made to both the school principals and students themselves on the survey's intent. Participation was voluntary, anonymity was guaranteed, and consent was obtained at the start of the survey. An anonymous online survey instrument was developed to keep personal information confidential and circulated through online communication, i.e., Facebook messenger, Facebook public group of the target population, personal e-mail. After scrutinizing the initial data, we excluded 142 responses due to having outliers, and finally, 258 data were recorded for the final analysis.

Instruments

Social Media Addiction Scale - Student Form [37]. It's a self-report scale. The aim was to measure the addiction levels of students aged 12-22 years. Findings from validity and reliability studies show that the scale is a valid and reliable measurement tool and that can be used to identify students' social media addictions. A total of 998 students participated in the development process of the scale. The developed scale consists of 29 items and 4 factors (virtual tolerance, virtual communication, virtual problem, and virtual information) with Likert type five grades. All the items on the scale are positive. Internal consistency coefficient (Cronbach's alpha coefficient) was found 0.93 for the whole scale and at values ranging from 0.81 to 0.86 for the sub-factors. The test-retest coefficient was found 0.94. According to the exploratory and confirmatory factor analysis, the scale has a 4-factor structure accounting for 53.16% of the total variance.

High-School Satisfaction Scale (H-Sat Scale) [38]. The H-Sat Scale can be a valid instrument to help students to identify one or more potential areas of dissatisfaction during the school adjustment. H-Sat Scale assesses the concept of school satisfaction as a multidimensional construct with different dimensions, using a reduced number of items despite the variety of information obtained. It is 20 items, 5-point Likert scale. Students are asked to fill the questionnaire anonymously, indicating how satisfied they were with each sentence using a 5-point Likert scale: (1) 'not at all', (2) 'a little', (3) 'somewhat', (4) 'very', (5) 'completely'. The scale showed good psychometric properties, in terms of internal consistency and validity of the H-Sat Scale, both in the pilot study and in the main one. CFA showed an overlapping structure with the CSS, with acceptable fit indexes, confirming the scale's construct validity. Internal consistency was assessed for the five subscales, and all Cronbach's alpha indexes were optimum for the whole sample and the three sub-samples.

Tuckman's procrastination scale –short form (TPS; [39].) It is a self-report scale aimed to measure procrastination tendencies. The English version of the instrument included 16 items rated on a four-point

scale (1: Strongly disagree, 4: Strongly agree) and had a single factor structure with the loading of 0.40 or higher. It is a measure of students' procrastination due to their ability to self-regulate or manage their work schedule. The participants are supposed to rate each item on a 5-point scale ranging from 1 (doesn't apply to me at all) to 5 (completely applies to me). The possible range of the results is 16 to 64, with higher scores meaning a higher tendency to procrastinate. The instrument had a single factor structure with a loading of 0.40 or higher. Tuckman [40]. Reported Cronbach's α to be 0.89. The reliability coefficient in this study was 0.93

PROCEDURES

The researcher paid a visit to the targeted schools. The principal's consent was obtained. Also, students were told about the purpose of this study. They were free to indicate their agreement or refusal to participate in the study. Those who accepted to participate were kindly asked and instructed to complete the scales honestly. They were told to keep their identifies anonymous on the scale paper to ensure honesty and sincerity. They also were informed that nothing to be feared about, even their responses. All data were manipulated with spss10 and AMOS24.

Statistical Analysis

Using statistical software spss10 and AMOS24, data analysis was done. Statistical Methods mean standard deviation, Pearson correlation coefficient, and path analysis were used.

Ethical Consideration

The goals of the study were explained to students (participants) from whom written informed consent was obtained. Concerning the confidentiality of personal information and responses, reassurance was given to the participants.

RESULTS

Table **1** shows the means, descriptive statistics, inter-correlations, and internal consistency coefficients of social networking addiction, academic procrastination, and quality of academic life. Quality of academic life correlates negatively with social networking addiction (*r* = -0.421), and academic procrastination (*r* = -0.513). On the other hand, social networking addiction was found to be positively correlated with academic procrastination (*r* = 0.534). According to Skewness and kurtosis values, the data set is in the range of ± 1 and shows a normal distribution.

PATH ANALYSIS

To test the relationships between study variables (namely, Social networking Addiction, academic procrastination, and quality of academic life), a path analysis was conducted with AMOS24. The model fit was satisfactory with the goodness-of-fit index (GFI)=0.96,comparative fit index=0.97, adjusted GFI=0.93, normed fit index=0.95, root mean square error of approximation=0.06, root mean square residual=0.03, and χ2=4.92 with p=0.09.

Regression coefficients of the empirical model (Table **2**) show that social networking addiction had a direct negative effect on the quality of academic life (b= -0.49, p<0.001) and a direct positive effect on academic procrastination (b=0.52, p<0.001).

According to these findings, academic procrastination had a partial mediating effect on the relationship between Social networking addiction and quality of academic life. Mediator variable analysis is shown in Figure **2**.

DISCUSSION

The purpose of this study was to test the mediator role of academic procrastination in relation to the relationship between social networking addiction and the quality of academic life among first-year high school students. Results of mediation analyses supported the hypothesis that academic procrastination mediates the effect of academic procrastination on social networking addiction and quality of academic life.

As for descriptive statistics, inter-correlations, and internal consistency coefficients of social networking addiction, academic procrastination, and quality of

Table 1: Correlation between Social Networking Addiction, Academic Procrastination, and Quality of Academic Life

| Variable	M	SD	Skewness	Kurtosis	SNA	AP	QAL
SNA	12.32	1.04	.82	.27	-	.534**	-.421**
AP	20.42	1.32	.61	-.32		-	-.513**
QAL	49.65	1.11	-.72	.75			-

Note: SNA= Social networking addiction; AP= academic procrastination; QAL= quality of academic life.

Table 2: Academic Procrastination Mediating Effect on the Relationship between Social Networking Addiction and Quality of Academic Life

	β	B	Standard error	CR
SNA → QAL	-0.46	-0.49	0.05	9.34**
SNA → AP	0.50	0.52	0.06	10.00**

Model Fit: (GFI)=0.96,comparative fit index=0.97, adjusted GFI=0.93, normed fit index=0.95, root mean square error of approximation=0.06, root mean square residual=0.03, and χ2=4.43, p=0.09.
**p<0.001.AGFI, adjusted goodness-of-fit index; CFI, comparative fitindex; CR, critical ratio; GFI, goodness-of-fit index; NFI, normed fit index; RMR, root mean square residual; RMSEA, root mean square error of approximation.
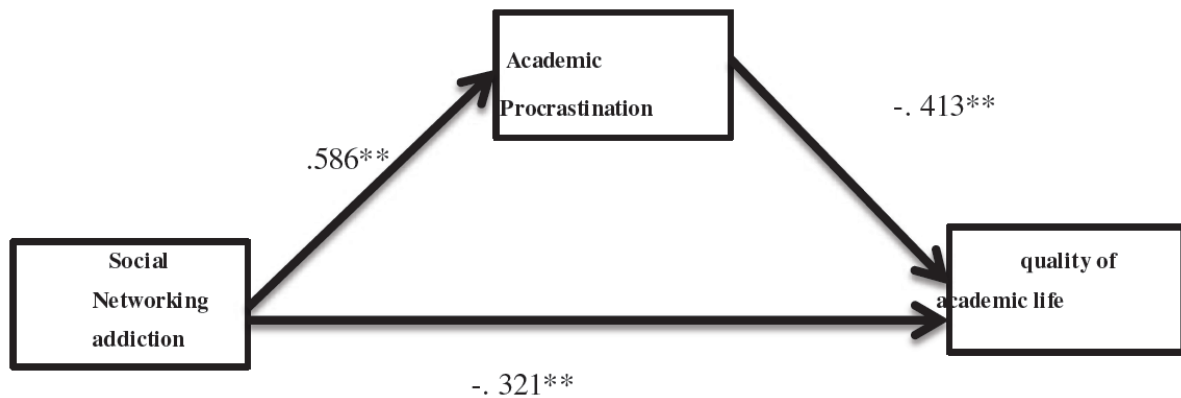
Figure 2: Academic procrastination as a mediator between social networking addiction and quality of academic life.

Note. **p <.01.

academic life, quality of academic life correlates negatively with social networking addiction and academic procrastination. On the other hand, social networking addiction was found to be positively correlated with academic procrastination. The data set, according to Skewness and kurtosis values, was in the range of ± 1 and showed a normal distribution.

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Regression coefficients of the empirical model showed that social networking addiction had a direct negative effect on the quality of academic life (b= -0.49,p<0.001) and a direct positive effect on academic procrastination (b=0.52,p<0.001). Academic procrastination had a partial mediating effect on the relationship between Social networking addiction and quality of academic life.

Results support previous research showing that social networking addiction negatively impacts academic achievement by creating academic procrastination, reducing sleep quality, and increasing academic stress [41].

Evidence indicates a positive and significant correlation between inappropriate and problematic use of technology and quality of academic life [42]. The inappropriate and problematic use of social networks may result in students' inability to succeed in school settings and their social relationships. It may lead to their inability to manage their academic time effectively.

They use social media more frequently than real-life interactions as a means of socializing. Consequently, social media occupies too much time and causes a lot of time to be wasted. Spending too much time on social media can cause people to go out less and spend less time in real life with their friends and, as a result, experience social alienation from the culture they live in[43]. Excessive use of social media also causes young people to fail to perform their academic responsibilities and tasks[44]. Overall, we can argue that while social media addiction increases academic procrastination behaviours, it is not the only cause of academic procrastination behaviours[44].

Procrastination may interrupt academic performance, as procrastinators are likely to avoid completing the task at hand until insufficient time to perform in order to cope with anxiety. They may also be unable to invest the time and effort necessary for performing as they underestimate the amount of time required for completing specific tasks. As a result of procrastinating academic tasks and responsibilities, students fail to show the academic performance they desire[44]. This result goes in the same line with Sheikhlar's[45], which showed a relationship between social networks with academic procrastination and students self-regulation learning strategies and indirectly affected students' procrastination.

CONCLUSIONS

In summary, this study adds to the extant research in support of academic procrastination to address the quality of academic life in a social media context. Findings furthermore contribute to a better understanding of how academic procrastination mediates the relationship between social networking addiction and quality of academic life.

Application and Implications

The results of this study have corroborated with previous research and confirmed correlations between and among social networking addiction, academic performance, and quality of academic life. These findings have practical implications. Students who were addicted to social networking, compared to other students, had Grade Point Average (GPA). Students who procrastinate have claimed that their procrastination has a significant impact on their academic standing, ability to understand class material, and the overall quality of their lives. We can recommend that to ensure high levels of quality of academic life among students, and students should be moderate in their use of social media and try to accomplish their academic tasks, i.e., they should reduce academic procrastination and postpone their academic work.

Limitations and Future Research

This study has some limitations. First, a convenient sampling method was used to recruit the participants. Therefore, the findings of the study have limited generalizability in other regions and age groups. Second, as a cross-sectional study, there has to be caution in making any generalization of the results. Future researchers should get more respondents from wider geographical locations.

Furthermore, self-report questionnaires were used to collect data from respondents. It is recommended that future researchers use a different method such as a personal interview or telephone interview to collect data. This may help get reliable data after clarifying and removing what may be ambiguous.

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