

# Academic Procrastination Among University Students in Saudi Arabia and Its Association with Social Media Addiction

Mariam Hejab Al Shaibani

Assistant Professor in Educational Psychology, Taif University, Al Hawiyah, Taif 26571, Saudi Arabia

\*Correspondence to: Mariam Hejab Al Shaibani, Assistant Professor in Educational Psychology, Taif University, Al Hawiyah, Taif 26571, Saudi Arabia, Tel: 00966503047908; E-mail: maryam0017@hotmail.com

## Abstract

**Purpose:** The current study assessed the levels of Academic Procrastination (AP), its relationship with social media addiction, and its predictors among university students in Saudi Arabia.

**Methods:** A cross-sectional study was conducted on a sample of 697 students at Taif University. Participants provided information about their basic demographic data and completed both the Internet Addiction Scale and the Tuckman Procrastination Scale (TPS).

**Results:** Overall, students show moderate levels of AP. Students' AP and social media addiction were significantly associated. Addiction to social media, daily hours using social media, household size, and phone use during lectures were markedly correlated with AP. Predictors of procrastination explained 22.2% of its variation and included daily hours of social media use, phone usage frequency during lecture time, and social media addiction.

**Conclusion:** The findings of this study have important implications for educators, psychologists, and students to address the problems associated with social media addiction and AP.

**Keywords:** Internet addiction, Students, Academic success, Academic conduct, Social network, Student problems

## Introduction and Literature Review

Recently, there has been a considerable global increase in the usage of online learning by academic institutions (Crawford et al., 2020). In the United Kingdom of Saudi Arabia, the current pandemic of coronavirus disease 2019 (COVID-19) has dramatically changed the teaching methodology, with a huge demand from teachers and students to use e-learning (Hoq, 2020). Also, many teachers use social media to communicate with their students for academic purposes (Greenhow, Galvin, & Staudt Willet, 2019). The frequent use of social media has been linked to "social media addiction". Social media addiction among university students has recently become a significant public concern (Al Mamun & Griffiths, 2019). Within the context of Saudi Arabia, one study found that university students in Saudi Arabia spend around 2.5 hours per day on social media (Aljasir, Bajnaid, Elyas, & Alnawasrah, 2017). Addiction to social media is related to various mental health problems (Andreassen, 2015).

Social media addiction can be defined as "being overly concerned about [a] social network site, driven by a strong motivation to log on to or use SNSs, and to devote so much time and effort to [a] social network site that it impairs other social activities, studies/job, interpersonal relationships, and/or psychological health and well-being" (Andreassen & Pallesen, 2014, p. 4054). Social media addiction is a type of behavioral addiction that shares many symptoms with other addictions such as withdrawal and mood change (Andreassen, 2012). In a study of 668 university students from various Arab countries, including Saudi Arabia, Lebanon, Jordan, and Palestine, Helou et al. (2018) found that the negative aspects of using social networking sites include jealousy, frustration, and cyber addiction. They attributed this to the ability of these sites to isolate the individual from real life and make him or her live in a virtual world capable of distracting their awareness and judgments. The negative impact of these sites on students also includes

a decrease in academic performance (Aziz, Soroush, & Khatony, 2019) and exposure to cybersecurity crimes (AlSabban & Alharbi, 2019).

Social media addiction can have negative impacts on students' academic performance and many students who are addicted to social media may postpone their academic tasks. Thus, students who are preoccupied with social media use may tend to procrastinate on their assignments even if negative consequences are associated with this delay (Steel, 2007). AP refers to a delay in the beginning or completion of an intended course of action (Blunt & Pychyl, 2005). Thus, it reflects a defect in self-organizing performance and includes postponing the academic tasks and duties to be accomplished. AP has increased in recent times, especially in light of the electronic revolution and knowledge explosion.

Procrastination is a widespread global phenomenon among university students (Dewitt & Schouwenburg, 2002). Abu Ghazal (2012) studied the extent of AP among Yarmouk University students in Jordan. The results showed that 25.2% of university students had high procrastination, compared to 17.2% who had low procrastination, while 57.7% of university students had average procrastination.

The reasons for procrastination are numerous. Steel (2007) found that some of these reasons included: mission hate, self-efficacy, impulsivity and dispersion, and the level of motivation for achievement. Additionally, Al-Rabab'ah and Al-Maqablah (2018) found that time management, metacognitive and positive beliefs, and self-organization contribute to the prediction of AP. Alshehri (2018) also found that, among students at the College of Education in Hail University, Saudi Arabia, the reasons for AP from their point of view were weak social responsibility and an inability to organize time. Dewitt and Schouwenburg (2002) mentioned additional reasons for AP, including those relating to the student, such as low self-esteem, the bad habits of

recall and low motivation, and others that are related to the nature of the task, such as lack of acceptance.

Although the previous research examined the relationship between internet addiction and procrastination, there are inconsistencies in the results of these studies. Some studies indicate a positive relationship between AP and internet addiction (i.e., Demir & Kutlu, 2018). Przepiorka, Błachnio, and Díaz-Morales (2016) also found that procrastination is a predictor of Facebook addiction. However, Odaci's (2011) study indicated that there is no relationship between internet misuse and AP. Previous research found that AP was associated with internet addiction and academic motivation (Demir & Kutlu, 2018), internet misuse (Odaci, 2011), and Facebook misuse (Przepiorka et al., 2016). However, few studies address the role of social media addiction in particular in predicting AP. Studies that have addressed the impact of social networking sites are still scarce and there remains a need to conduct more longitudinal, cross-sectional, and multicultural studies (Andreassen, 2012).

This study draws attention to the problem of increasing social media use by students, which can be a dangerous phenomenon in the modern era (Helou et al., 2018). It seeks to examine the association between social media use and AP. It also seeks to identify the impact of the economic and social indicators, as well as the number of daily hours that students spend on these sites, the effect of using one's phone during the lecture, and the student's gender and screen size. This study is also unique because it targets addiction to various social networking sites such as WhatsApp, Twitter, Snapchat, and Instagram and predicts AP in light of demographic variables.

## Objectives

The study has the following objectives:

1. Assess the levels of AP among university students.
2. Identify the relationship between social media addiction and AP among university students.
3. Examine the predictors of AP among university students.

## Method

A cross-sectional study was conducted on 697 students from different specialties at Taif University. Both males and females were included. The IRB was obtained from the Deanship of Scientific Research at Taif University before data collection.

### Data Collection

An invitation to complete the questionnaire was shared on three social media channels of Taif University (Twitter, Telegram, WhatsApp) to invite the largest possible number of undergraduate students. Students were voluntarily invited to participate in the study. The sampling method was a non-probability convenience sample (Jupp, 2006). The consent form and a description of the study were provided to all potential participants. The number of students who used at least one of these social media channels was 3000.

The questionnaire consisted of three parts. The first part was a demographic survey. The second part was the Tuckman Procrastination Scale (TPS), which was developed by Tuckman (1991) to measure procrastination tendencies in academic settings. The scale consisted of 72 items that yielded 16 items after factor analysis. Each item was rated on a four-point Likert scale. The third part was the Bergen Social Media

Addiction Scale (BSMAS), which was developed by Andreassen and his colleagues (Andreassen et al., 2016) based on general addiction theory. The scale is a modified version of the Bergen Facebook Addiction Scale (BFAS) (Andreassen et al., 2012). While the old version of the BFAS measures addiction to the Facebook site only, the modern version measures addiction to many sites like Twitter, Facebook, and Instagram (Balcerowska, Bereznowski, Biernatowska, Atroszko, Pallesen, & Andreassen, 2020). The names "Bergen Social Media Addiction Scale" and "Bergen Social Networking Addiction Scale" are "used interchangeably" in the literature (Andreassen et al., 2017; Andreassen et al., 2017). The scale consists of six items that reflect addiction criteria such as withdrawal, salience, mood modification, conflict, tolerance, and relapse. Examples of these items are: "Use a lot of time thinking about or planning using social", "Felt an urge to use social media more and more", and "Tried to cut down on the use of social media without success". Each item has a five-point scale that ranges from very rarely to very often. The composite score ranges from 6 to 30.

The two scales were translated from English into Arabic following the process of Beaton et al. (2000). To check the reliability of the two scales, a pilot study was performed on a sample of 50 students who were excluded from data analysis. Cronbach's alpha test of internal consistency was used to assess the reliability of the measured indicators for the BFAS and TPS. The results of this analysis are shown in Table 1. Both scales were reliable; Cronbach's alpha for the internet addiction scale was 0.75, while the Tuckman Procrastination Scale has a Cronbach's alpha = 0.89, denoting that the university students understood and answered the items reliably (Nunnally & Bernstein, 1994).

### Data Analysis

Means and standard deviations were used to describe continuous variables and frequencies and percentages were used to describe the categorical variables. The Kolmogorov-Smirnov Test of Normality and Histograms were used to assess the normality of the continuous variables. The Bivariate Pearson's test of correlation ( $r$ ) was used to assess the correlation between continuous variables, and the t-test of independent groups was used to assess the students' perceived mean AP across the levels of binary categorical variables. For the categorical variables of three or more levels, the One-Way ANOVA test was used instead. The Relative Importance Index (RII) analysis was used to compute the students' relative agreement with each item within the procrastination and social media addiction questionnaires. The RII is a weighted item mean expressed as a percentage which will help us sort the indicators of the AP in terms of relative agreement by the students (DiStefano, Liu, Jiang, & Shi, 2018). Therefore, it is an item weighted mean analysis rather than a subject analysis. The scale items that receive an RII between 1-25% are very insignificant/not substantive, those that receive an RII between 25-50% are insignificantly agreed upon by the students, those with an RII between 50-75% are significantly agreed upon by the students, and those with an RII > 75% are very significantly agreed upon by the students. The Categorical Factor Analysis was used to compute a socioeconomic index from the students' measured characteristics (parental education, income, and housing ownership). The Multivariate Linear Regression Analysis was used to assess the combined and individual association of the university students' socio-

**Table 1.** Reliability analysis of the measured concepts and questionnaires

	Number of items	Cronbach's alpha
Internet addiction scale	6	0.75
Tuckman Procrastination Scale	16	0.89

demographic and economic variables, perceived social media addiction, and e-device usage with AP.

We used the Categorical Principal Components Analysis (non-linear principal components analysis) to compute a standardized Socio-Economic Index score. The analysis suggested that the students' measured variables (namely, the mother's education, father's education, household income rating, family size, and student's daily expenses in riyals) could be formulated into one composite index (i.e., factor score) that is standardized, with a mean of 0 and a standard deviation of equal to 1. Students scoring above 0 are considered greater than average with regard to their socioeconomic and educational class score, while those who score below 0 (i.e., below average) are considered to have a lower—on a standard points scale—socioeconomic educational state. This yielded factor explained a total of 39.8% of the students' shared variations between their parental education and economic factors. We accepted this factor score as a proxy variable that we will utilize instead of those measured factors combined to reflect the students' family socioeconomic state. See table-1 in the appendix for the factor loadings of those measured indicators to the estimated socioeconomic factor we obtained from the Categorical Factor Analysis.

The Multivariate Linear Regression Analysis was used to assess the combined and individual associations between the university students' socioeconomic demographics as well as perceived social media and e-device usage addiction with their AP when regressed simultaneously against the students' AP.

Pearson's correlation test ( $r$ ) was used to assess the bivariate association between the university students' perceived AP with their other metric of perceptions and characteristics.

The Multivariate Linear Regression Analysis was used to regress the students' perceived AP against their socio-demographic factors and their social media and phone usage perceptions and characteristics (Table 5).

## Results

A total of 697 university students were enrolled electively into the study. Most of them were females (72.3%) and the remainder (27.7%) were males. The yielded analysis of the students' mothers' educational level showed that the majority of participants' mothers had a secondary education level or less ( $n = 536$ , 76.9%), while only 3.7% had a college education and 19.4% had a university degree or higher. Also, 443 (63.6%) of the students' fathers had a secondary education level or less, 5.5% had a college degree, and 31% had a university degree. With regards to the housing type of those students, the majority of the students, 75.9%, lived with their families within a family-owned house, while the rest of the students, 24.1%, indicated that their family homes were rented. The mean + SD household size was  $8.6 + 3.6$  members with the parents included, and the mean + SD daily personal expenses of the students in Saudi Riyals was equal to  $30.1 + 25.8$  Saudi Riyals, with a range of daily expenses between the lowest students' expenses and the highest students' expenses equal to 175 Saudi Riyals. When the students were asked to rate their household income on a Likert-like scale of 1 = very low to 6 = very high, the mean household income rating was  $3.32 + 1.02$ , which is somewhere between middle to above-average household income; however, the analysis of the frequency and percentages of the income rating suggested that 5.3% of the students had very low income, 8% had low income, most of them (50.8%) had middle income, 24% had above middle income, 9.5% had high income, and 2.4% had very high household income (Table 2).

**Table 2.** Students' socioeconomic and demographic characteristics (N = 697)

	Frequency	Percentage
<b>Gender</b>		
Female	504	72.3
Male	193	27.7
<b>Educational level (Mother's)</b>		
Secondary or less	536	76.9
College	26	3.7
Higher studies	135	19.4
<b>Educational level (Father's)</b>		
Secondary	443	63.6
College	38	5.4
Higher studies	216	31
<b>Family Housing</b>		
Owned	529	75.9
Rented	168	24.1
<b>Number of people in the same house, mean(SD)</b>		8.6 (3.6)
<b>Students' daily expenses in Saudi Riyals, mean(SD)</b>		30.1 (25.8)
<b>Family Monthly Income Category</b>		
Very low	37	5.3
Low	56	8
Average	354	50.8
Above average	167	24
High	66	9.5
Very high	17	2.4

Table 3 displays the means, standard deviations, and relative importance (RII) index analysis of the students' perceived indicators of academic procrastination and the indicators of social media addiction. To illustrate the findings, we emphasize the top and bottom four indicators of students' perceptions of procrastination. The top perceived indicator of academic procrastination among the university students was "Putting something off until tomorrow is not the way I do it", which received 3.2 agreement points out of 5 points, with a relative importance index that is substantive (63.2% out of 100%), suggesting a positive attitude of students toward their assignment. The next top perceived indicator of procrastination for those students was their collective rating of whether they "7. ... put necessary time into even boring tasks like studying", which received a collective mean agreement equal to 2.9 out of 5 and a substantive relative importance index equal to 58% out of 100%, suggesting that those students, in general, tended to put substantive time into completing their assignments, on average, even though those tasks were boring. Next, from the top indicator of procrastination was each student's agreement with whether they "8. ... were 'an incurable time waster'", which received a mean agreement rating equal to 2.89 out of 5 and significant (i.e., substantive) but low relative importance,  $\text{RII} = 57.8$  out of 100%, which indicates that those students collectively perceive some time-wasting that may have no solution from their perspective. The fourth from the top indicator of procrastination among the university students was their perceived agreement that "14. I always finish important jobs with time to spare", which was rated with mean agreement equal to 2.83 out of 5 and low but significant relative importance,  $\text{RII} = 56.6\%$  out 100%.

The bottom perceived indicators of academic procrastination among those university students was the students' perception toward "15. I still get stuck in neutral even though I know how important is to get started", which had a mean of 2.23 out of 5 and insignificant relative importance,  $\text{RII} = 44.5\%$ , highlighting a low perceived lack of initiative among the students in doing their work. In other words, it highlights a good ability to initiate homework. The second-to-the-bottom indicator

**Table 3.** Descriptive statistics and Relative Importance Index (RII) analysis of students' perceptions of procrastination and social media use. N = 697

	Mean (SD) Likert rating	RII-%	Rank
<b>Students' perceived indicators of academic procrastination</b>			
1. I needlessly delay finishing tasks even when they are important.	2.36 (1.22)	47.3	14
2. I postpone starting in on things I don't like to do.	2.70 (1.1)	53.9	9
3. When I have a deadline I wait till the last minute.	2.68 (1.3)	53.5	10
4. I delay making tough decisions.	2.57 (1.2)	51.4	12
5. I keep putting off improving my study habits.	2.75 (1.3)	55.0	8
6. I manage to find an excuse for not doing something.	2.36 (1.2)	47.2	15
7. I put necessary time into even boring tasks like studying.	2.9 (1.2)	58.0	2
8. I am an incurable time waster.	2.89 (1.2)	57.8	3
9. I am a time waster now but I cannot seem to do anything about it.	2.76 (1.3)	55.2	6
10. When something is too tough to tackle, I believe in postponing it.	2.76 (1.2)	55.2	7
11. I promise myself I will do something and then drag my feet.	2.82 (1.2)	56.5	5
12. Whenever I make a plan of action, I follow it.	2.59 (1.2)	51.9	11
13. Even though I hate myself if I don't get it started, it doesn't get me doing.	2.57 (1.2)	51.3	13
14. I always finish important jobs with time to spare.	2.83 (1.2)	56.6	4
15. I still get stuck in neutral even though I know how important it is to get started.	2.23 (1.1)	44.5	16
16. Putting something off until tomorrow is not the way I do it.	2.84 (1.2)	63.2	1
<b>Perceived indicators of social media addiction</b>			
1. I spend a lot of time thinking about social media or planning [my] use of social media.	2.49 (1.2)	49.8	5
2. I feel an urge to use social media more and more.	3.2 (1.3)	64.0	1
3. I use social media in order to forget about personal problems.	2.95 (1.31)	59.1	2
4. I have tried to cut down on my use of social media without success.	2.55 (1.4)	50.9	4
5. I have become restless or troubled if I was prohibited from using social media.	2.77 (1.4)	55.3	3
6. I use social media so much that it has had a negative impact on my job or studies	2.32 (1.3)	46.4	6

Note: Procrastination items (14 & 16) were reverse-coded because they characterized less procrastination.

of academic procrastination for those students was their agreement with whether they “6. ... manage to find an excuse for not doing something”, which had a mean agreement equal to 2.4 out of 5 and insignificant relative importance, RII = 47.2 out of 100%, indicating their inability to find excuses to not do their university homework and assignments. The third-from-the-bottom-ranked indicator of procrastination among those students was “1. I needlessly delay finishing tasks even when they are important”, which received a mean collective agreement among the students equal to 2.4 out of 5 and an insignificant relative importance, RII = 47.3%.

**STUDENTS' INDICATORS OF SOCIAL MEDIA ADDICTION:** The descriptive and relative importance analysis of the main results showed that the top indicator of social media addiction among university students was their self-rating of whether they “2. ... feel an urge to use social media more and more”, which received a mean frequency rating of 3.2 out of 5 Likert points, a significant equivalence, i.e., substantive, and a relative importance index weight of 64% out of 100 maximum points, denoting that those students had an urgency to use social media between sometimes to often on average. The second-from-the-top indicator of social media addiction among students was their perception regarding “3. I use social media in order to forget about personal problems”, which received a collective mean rating of 2.95 out of 5 and a substantive equivalence of relative importance weight, RII = 59.1%, denoting that those students engaged in significant use of social media to help them get over their personal issues and problems. However, the bottom-ranked indicator of social media addiction among the university students was their use of social media as follows: “6. I use social media so much that it has had a negative impact on my job or studies”, which was rated with a collective mean frequency equal to 2.32 out of 5 on the Likert scale and received an insignificant relative importance index, RII = 46.4% out of 100, denoting that despite the use of social media by those students, they indicated that their use had seldom impacted their job and studies via excessive use. The second-

from-the-bottom-ranked indicator of social media addiction was the students' contention regarding whether “1. I spend a lot of time thinking about social media or planning [my] use of social media”, which had a mean collective frequency rating equal to 2.5 out of 5 Likert points, and an insignificant relative importance equivalence, RII = 49.8%, denoting that the students had insignificant planning to spend a lot of time on the use of social media on average. The other indicators of addiction were rated midway between those top and bottom indicators of social media (see Table 4), particularly the last ranking column number four.

The students' overall mean perceived AP was rated at 2.66 points out of a maximum of 5 Likert points (Table 4). This is between rarely and sometimes procrastinate on average. To express this mean procrastination in a percentage, it would be equivalent to  $2.66/5 \times 100 = 53.2\%$  out of 100% procrastination. Also, the university students' overall mean perceived social media addiction as measured with the Bergen social media questionnaire was rated at 2.71 points out of 5, which was between rarely and sometimes. The overall mean self-rated extent of phone use during lectures was rated at 2.3 points out of 4, which is between seldom to often in general. However, if we express this self-rated frequency of phone use during the lectures as a percentage, it would be equal to  $2.3/4 \times 100\% = 58\%$  out of 100% maximum points, which is a substantive rate of using the phone during lectures.

(Table 5). the bivariate correlation TEST –table 4 between students' perceived overall AP showed no statistically significant association with their computed socioeconomic index. However, the university students' perceived AP correlated significantly and positively with their perceived social media addiction ( $r = 0.46$ ;  $p < 0.010$ ). This suggests that students who perceived themselves as more addicted to social media tended to perceive significantly higher AP on average. Additionally, the students' perceived AP correlated significantly and positively with their reported daily hours of social media use ( $r = 0.130$ ;  $p < 0.010$ ), denoting that as the hours of daily social media use rose, the corresponding perceived



**Table 4.** Descriptive statistics of the university students' overall perceptions of procrastination and social networking addiction (N = 967)

	Mean (SD)	Maximum possible score
Perceived procrastination	2.66 (0.77)	5
Perceived addiction to social media	2.71 (0.86)	5
Self-rated use of the phone during lectures	2.26 (1)	4

**Table 5.** Factors associated with procrastination

	Socioeconomic Index-SES	Perceived addiction to social media	Daily hours using social media	Daily personal expense in Riyals	Household size	Use of the phone during lectures
Procrastination	-0.051	.46**	.13**	-0.05	.10*	.21**

**Table 6.** Multivariate Linear Regression Analysis explaining the combined and individual associations between students' demographics, perceived addiction, and their procrastination

	B	Std. Error	Standardized Beta	t-value	p-value
(Constant)	1.649	.198		8.337	<0.001
Students' sex = Male	-.017	.058	-.010	-.300	.764
Students' socioeconomic index	-.044	.026	-.058	-1.703	.089
Used phone type	-.049	.052	-.032	-.941	.347
E-device screen size	-.052	.048	-.037	-1.099	.272
Daily hours spent using social media networks	.010	.005	.069	1.914	.056
Self-rated use of phone during lectures	.103	.027	.134	3.846	<0.001
Perceived addiction of social media	.365	.031	.410	11.919	<0.001

Dependent Variable = Students' perceived academic procrastination, Model Multiple R = 47.9%, Adjusted R-squared = 22.2%.

AP tended to rise incrementally as well. The students' household size (family members) also had a significant correlation, though weakly positive, to perceived AP ( $r = 0.10$ ;  $p < 0.050$ ). The self-rated frequency of phone use during lectures also correlated significantly and positively with students' perceived AP ( $r = 0.21$ ;  $p < 0.010$ ), denoting that students who use their phones more frequently may experience significantly more AP on average.

The yielded multivariate linear regression analysis model was statistically significant ( $F(7,689) = 13.41$ ,  $p < 0.001$ ), suggesting that at least one or more of the regressed predictor independent variables had a statistically significant multivariate association with students' perceived academic procrastinating behavior. However, the adjusted R-squared (22.2%) indicated that these combined factors explained a substantive amount of variation in the students' perceived AP.

The analysis model indicated that students' gender did not correlate significantly with their AP ( $p = 0.764$ ), denoting that male and female students may perceive nearly equal AP on average. However, the analysis model showed that the students' computed socioeconomic index correlated slightly negatively with their perceived AP ( $p = 0.089$ ), suggesting that as the students' socioeconomic index tended to rise (i.e., as their parental education, income, and other economic characteristics tended to rise), their mean perceived AP tended to decline slightly, though this association was not statistically significant. Surprisingly, the students' phone type did not correlate significantly with the students' perceived AP ( $p = 0.347$ ), denoting that the type of phone may not affect students' AP behavior on average. Additionally, the analysis showed that the various devices with different screen sizes did not differ significantly in their mean respective AP ( $p = 0.272$ ).

Interestingly, the students' self-reported daily hours of social media use correlated significantly and positively ( $p = 0.056$ ) with their AP perception, indicating that as students' daily hours of social media use rose, their mean perceived AP tended to rise as well. Unsurprisingly, the analysis model indicated that the students' self-rated phone usage frequency during lecture time correlated positively and significantly with their perceived AP self-rating ( $p < 0.001$ ), denoting that students who use the phone more often during lectures are predicted to

perceive significantly higher academic procrastination on average. Notwithstanding, the students' perceived social media addiction correlated significantly and positively with their perceived AP on average ( $p < 0.001$ ), denoting that students with higher social media addiction may experience significantly higher AP on average.

## Discussion

This study found a significant relationship between procrastination and social networking addiction, which matches several previous studies, including Demir and Kutlu (2018), Aznar-Díaz et al. (2020), Hayat, Kojuri, and Mitra Amini (2020), and Uzun, Ünal, and Tokel (2014), and showing that social networking addiction is positively associated with AP. This outcome is also in line with a substantial number of studies that denote the negative effect of social media sites on students' academic performance (Aziz et al., 2019; Meier et al., 2016; Przepiorka et al., 2016; Rayan et al., 2017). Thus, as in many countries worldwide, the greater the social networking addiction among Saudi students, the greater the amount of procrastination expected. Previous research (Bernal-Ruiz et al., 2017) indicated that loss of control over internet use is linked to an emotion of obsession. In this situation, the internet turns students into "slaves" of their passion, causing them to perceive other offline activities as unimportant. As a result, individuals with high levels of passion for the internet likely have less time for tasks and other activities that are less preferred but may be important, which leads to a tendency to postpone tasks in general (Doty et al., 2020). In this regard, Meier et al. (2016) noted that social media use can predict about 40% of procrastination among students. In addition, social networking addiction could be used by the study participants as an escape/avoidance coping strategy to reduce the psychological stress associated with academic pressure. Academic tasks could be considered by many students to be boring, difficult, unpleasant, or less enjoyable, which could cause students to delay or avoid doing them. Conversely, social media is viewed as entertaining, interesting, and effective for stress relief (Demir & Kutlu, 2018). Thus, social networking addiction can be a suitable alternative for these students to reduce academic stress.

It is noteworthy to mention that, in Saudi Arabia and many other Arab countries, drug abuse or addiction is not prevalent due to cultural

and legal factors. Therefore, Saudi students may find social networking use to be a more culturally acceptable alternative for drug use to relieve stress.

On the other hand, the results show a negative effect of mobile phone use during class, which can lead to procrastination. Using social media during class could distract students and reduce their ability to concentrate during class (Steel, 2007; Dewitt & Schouwenburg, 2002). In the same context, the use of social media in class can lead to failure in self-regulation through different tasks (David et al., 2015). Use of a smartphone to access social media may increase the risk of internet addiction because the smartphone is available for almost all students and can be easily used to access these networks (Romero-Rodríguez & Baznar-Díaz, 2019).

Also, procrastination was positively correlated with the daily hours spent using social networking sites and internet addiction, which can be related to the excessive time spent on social media use rather than on completing academic tasks. Thus, students with a higher level of internet addiction were more prone to AP. When students are addicted to the internet, it can dominate their lives. Preoccupation with internet use causes the student to put his/her academic responsibilities as a second priority, and in turn, to delay academic tasks (Hayat, Kojuri, & Mitra Amini, 2020). Also, addiction to social media networks makes students unable to resist the attractions of online socialization and entertainment; thus, they spend more time on the internet, resulting in additional procrastination (Geng, Han, Gao, Jou, & Huang, 2018).

## Limitation

The present study used a cross-sectional research design and self-report scale. Future studies may want to use stronger designs, such as an experimental design. The current study examined the relationship between procrastination, socioeconomic status, gender, and other demographics. However, it would be helpful to examine the role of specific psychological variables (i.e., psychological stress, personality traits, and coping strategies) in predicting procrastination. Finally, to further generalize the results of the study, there is a need to replicate the study findings in other cities of the kingdom.

## Conclusion

The findings of this study have important implications for educators, psychologists, and students to address the problems associated with social media addiction and AP. Despite the benefits of using social media to gain knowledge (Al-Omari, 2018), their negative side is still evident as related to the high possibility of social media addiction and its association with AP. The study also found that excessive use of phones during lectures leads to greater procrastination in educational tasks. Likewise, teachers in universities must pay attention to the impacts of phone use during lectures on AP and, thus, to restricting its use. The study could also pave the way to more studies on the type of use that contributes more to social media addiction during lectures, as well as counseling and treatment programs to counter this phenomenon.

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