Outcomes Associated with Heavy Social Media Usage
By Kuwait University Students

Dr. Jamal J. AL-Menayes

Abstract:
This study focused on the impact of social media on an individual's life at both the social and the psychological levels. At the social level the study looked at the effect of social media usage on “social displacement.” Results showed that heavy social media usage does come at the expense of time spent with the family. Also at the social level the study examined the effect of social media on the individual’s perceived social life. Results have shown that those who spend more time using social media felt that their social life has improved as a result.

At the psychological level the study looked at the relationship between social media usage and self-confidence. There was no significant relationship between the two variables. However, gender was a strong predictor of self-confidence with females feeling more confident online than males. The study also examined the relationship between social media usage, anxiety and sleep disturbance. Results showed that the more time an individual spends using social media the more likely he or she will feel anxious if the service is interrupted. Time spent using social media was also related to having difficulty sleeping at night.

Introduction:
The emergence of the Internet and wireless communication technologies has changed the way we communicate permanently. These tools have enabled us to connect with each other more than ever before. More recently, advanced forms of Internet communication technologies known as “social media” have become immensely popular (Boyd and Ellison, 2008).

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Among the more interesting trends is the development of online social networks, portals that drive individuals to establish a network of associations with others. The virtual communities from these social networks enable people to establish contacts with individuals they would like to get to know, for either professional or social reasons, who they otherwise would not be able to meet. The most popular social networking media are microblogs such as “Twitter”, instant messaging services such as “Whatsapp” and online photo-sharing, video-sharing portals such as “Instagram.” What makes online social networking unique is the ability to define one’s own social network and interact in new ways. Indeed, users of many of these sites aren’t looking to meet new people but to communicate with others who are already part of their social networks” (Donath & Boyd, 2004).

Essentially, online social media enable their users to connect with people who have common interests while empowering them to become independent communicators. The most popular social media such as Twitter and Instagram allow their users not only to display their social network in their profiles but also control most of the content of their personal pages where the users can post individual messages, share photos and videos, track friends and arrange events. In other words, with the aid of social media now anyone can have their own personal online space and be linked to others.

Although social media seem to be changing the way people use the Internet, little is known about how they influence people’s socialization processes, feelings, communication habits and social displacement. Most of the studies on social media were related to issues like privacy and business models. Some published work, which studied the effects of social media provides valuable insights about how users’ behaviors are shaped (Mehdizadeh, 2010; Mansson and Myers, 2011; Ryan and Xenos, 2011). However, little attention is given to how personal and social factors shape the user’s experience. Furthermore, most of these studies focus almost exclusively on a single medium of delivery, the personal computer.
Previous Research

This section briefly surveys the most significant research into social aspects of social media use. More specifically, it will focus on studies that examined the concept of "social capital" and the relationship between it and the consumption of social media.

There is no unified definition or operationalization of social capital (Ellison, Stienfield, & Lampe, 2007; Halpern, 2005; Putnam, 2000). Putnam (2000) understands social capital as social connections (social networks) and the attendant norms and trust that enable participants to act together more effectively. Coleman also emphasizes social networks, relationships, and norms that are beneficial to group members. Ellison et al. (2007) build on both Coleman and Putnam, and examined the effects of social networks (Facebook) on increases or decreases in social capital. Ellison et al. underscore that social connections are also resources that are kept by individuals. In addition they emphasize the formation of weak ties which serve as the basis of bridging social capital. Social networks are supported by tools that help individuals to establish connections and to share experiences in larger social networks, which support loose ties from which they could potentially draw resources (Donath & Boyd, 2004).

On the individual level social capital can be understood as the number of connections within and between the different social networks individuals participate in, and the frequency with which they engage in these connections. Hence, social capital is herein defined operationally in terms of the (1) number of online connections, (2) time spent using social media, (3) feeling of confidence, and (4) offline connections that are a result online connection.

Social displacement and the Internet

Research on how Internet use impacts social connectivity offers a diversity of perspectives and conclusions (Wang & Wellman, 2010). Kraut et al. (1998) found decreased communication among family members in a household and concluded that this was caused by Internet usage. They attributed these outcomes to a social displacement effect, such as, time used on social relationships online displaces
offline relationship. Other studies found that Internet usage in general helps people to maintain existing interpersonal relationships both offline and online (Bargh & Mckenna, 2004; Tyler 2002).

Social displacement is related to another construct, social capital, which generally refers to the resources accumulated through the relationships among people (Coleman, 1988). Bourdieu and Wacquant (1992) define social capital as “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p.14). The Internet has been associated both to increases and decreases in social capital. Nie (2001), for example argued that Internet use detracts from face-to-face time with others, which might reduce an individual’s social capital. However, this viewpoint has received strong criticism (Bargh & McKenna, 2004). Furthermore, some researchers have argued that online interactions may supplant or complement in-person interactions, extenuating any loss from time spent online (Wellman, Haase, Wittle, & Hampton, 2001).

**Twitter, WhatsApp and Instagram**

In this section I will look briefly at the most popular social media among users today; Twitter, WhatsApp and Instagram. I will define what they are, their features and uses and a brief history of the respective companies and their growth over the years. This will help us to put the research in context for a better understanding of the results later.

**Twitter**

Twitter is an online social networking service and microblogging service that enables its users to send and read text-based messages of up to 140 characters, known as "tweets". Twitter was created in March 2006 by Jack Dorsey and by July, the social networking site was launched. The service rapidly gained worldwide popularity, with over 500 million registered users as of 2012, generating over 340 million tweets daily and handling over 1.6 billion search queries per day (Twitter Blog, 2012). Since its launch, Twitter has become one of the
ten most visited websites on the Internet, and has been described as "the SMS of the Internet" (Alexa.com, 2013). Unregistered users can read tweets, while registered users can post tweets through the website interface, SMS, or a range of apps for mobile devices.

The company went through rapid growth. It had 400,000 tweets posted per quarter in 2007. This grew to 100 million tweets posted per quarter in 2008. In February 2010, Twitter users were sending 50 million tweets per day. By March 2010, the company recorded over 70,000 registered applications. As of June 2010, about 65 million tweets were posted each day, equaling about 750 tweets sent each second, according to Twitter (Garret, 2010). As of March 2011, that was about 140 million tweets posted daily. As noted on Compete.com, Twitter moved up to the third-highest-ranking social networking site in January 2009 from its previous rank of twenty-second (Kazeniac, 2009).

Tweets are publicly visible by default, but senders can restrict message delivery to just their followers. Users can tweet via the Twitter website, compatible external applications (such as for smart phones), or by Short Message Service (SMS) available in certain countries. While the service is free, accessing it through SMS may incur phone service provider fees.

Users may subscribe to other users’ tweets - this is known as following and subscribers are known as followers or tweeps, a portmanteau of Twitter and peeps. The users can also check the people who are un-subscribing them on Twitter (unfollowing) via various services. In addition, users have the capability to block those who have followed them.

Twitter allows users to update their profile their mobile phone either by text messaging or by apps released for certain smart phones and tablets.

**WhatsApp**

WhatsApp Messenger is a proprietary, cross-platform instant messaging application for smartphones. In addition to text messaging, users can send each other images, video, and audio media messages.
The client software is available for Android, BlackBerry OS, BlackBerry 10, iOS, Series 40, Symbian (S60), and Windows Phone. WhatsApp Inc. was founded in 2009 by Brian Acton and Jan Koum, both veterans of Yahoo!, and is based in Santa Clara, California (Jackson, 2012).

Competing with a number of Asian-based messaging services (like LINE, KakaoTalk, and WeChat), WhatsApp was handling ten billion messages per day as of August 2012, growing from two billion in April 2012 and one billion the previous October (Russell, 2012). According to the Financial Times, WhatsApp "has done to SMS on mobile phones what Skype did to international calling on landlines" (Bradshaw, 2011).

WhatsApp uses a customized version of the open standard Extensible Messaging and Presence Protocol (XMPP). Upon installation, it creates a user account using one’s phone number as username (ID: [phone number]@s.whatsapp.net). WhatsApp software automatically compares all the phone numbers from the device’s address book with its central database of WhatsApp users to automatically add contacts to the user’s WhatsApp contact list. Previously the Android and S40 versions used an MD5-hashed, reversed-version of the phone’s IMEI as password, while the iOS version used the phone’s Wi-Fi MAC address instead of IMEI (Amodio, 2012)

**Instagram**

Instagram is an online photo-sharing, video-sharing and social networking service that enables its users to take pictures and videos, apply digital filters to them, and share them on a variety of social networking services, such as Facebook, Twitter, Tumblr and Flickr. A distinctive feature is that it confines photos to a square shape, similar to Kodak Instamatic and Polaroid images, in contrast to the 16:9 aspect ratio now typically used by mobile device cameras (Frommer, 2010).

Instagram was created by Kevin Systrom and Mike Krieger and launched in October 2010. The service rapidly gained popularity, with over 100 million active users as of April 2012. Instagram is distributed
through the Apple App Store and Google Play (Murph, 2012). Support was originally available for only the iPhone, iPad, and iPod Touch; in April 2012, support was added for Android camera phones running 2.2 Froyo. Originally a purely photo-sharing service, Instagram incorporated video sharing in June 2013, allowing its users to record and share videos lasting for up to 15 seconds.

By December 2010, Instagram had 1 million registered users. In June 2011 Instagram announced it had 5 million users and it passed 10 million in September of the same year. In April 2012, it was announced that over 30 million accounts were set up on Instagram (DesMarias, 2013).

Instagram announced that 100 million photographs had been uploaded to its service as of July 2011. This total reached 150 million in August 2011 (Instagram Blog, 2011). By May 2012 58 photographs were being uploaded and a new user was being gained each second. The total number of photographs uploaded had exceeded one billion. On February 2013, Instagram announced that they had 100 million active users, only two and a half years after first launching. This was an increase of roughly 10 million users in a little over a month’s time (Newman, 2013).

**Research Problem and significance**

The problem of this research is based on the assumption that social media have both positive and negative effects in relation to the factors associated with the amount of usage and not with whether a person uses social media or not. The significance of the study is that it is one of the first attempts to empirically examine the effects of social media on youth in the Arab world opening the door for further studies in this important field.

**Research Concepts**

The general research objective of this study is to determine the impact of social media usage on an individual’s life at the social as well as the psychological level. At the social level the “social displacement” factor is to be tested. More specifically, does heavy usage of social
media displaces time spent with family? At the psychological level we seek to determine if social media impact the individual’s emotional well being both positively and negatively. For example, does heavy social media use lead to anxiety? Psychologists have classified general anxiety into two types: One is trait anxiety (a general readiness to react with anxiety in many situations), and the other is state anxiety (anxiety experienced in a particular situation) (Spielberger et al., 1983). Here I propose that social media use leads to a state anxiety related to the medium itself and the fear of losing access to it.

Many signs of anxiety are also associated with self-reported symptoms of insomnia and fatigue. Anxiety has been shown to be related to sleep complaints like difficulties falling or staying asleep; restless, unsatisfying sleep at night; and fatigue during the day (Mellman, 2006). Therefore, we would suspect that heavy social media usage is related to having difficulty sleeping at night especially when the activity is performed at that time.

Self-confidence and self-esteem were shown to be related to success in social interaction (Dusek, & McIntyre, 2003). The relationship between self-esteem and communication behavior was analyzed by McCroskey and Richmond (1977) who claimed that individuals with higher levels of communication apprehension tend to get more anxious about communicating with others and will have lower self-esteem and lower self disclosure. Moreover, MacIntyre and his colleagues (1999) suggested that people with lower self-esteem tend to engage in communication with others less than people with high self-esteem, thinking they do not have much to contribute and are likely to get negative feedback. It is worth noting that most studies on self-esteem and social interaction have focused on face-to-face situations and very little research has been done to examine the concept in online contexts (Wilcox & Andrew, 2013). Therefore, it stands to reason to examine the effect of interacting through social media on self-confidence in the current study.
Research Questions
Towards that end and to achieve the study objectives we need to answer the following research questions:
RQ1: Does time spent with social media displace time spent with family members?
RQ2: Does the heavy usage of social media promote self-confidence when interacting with others online?
RQ3: Does the heavy usage of social media improve a user’s social life?
RQ4: Does the heavy usage of social media lead to anxiety and agitation when the service is interrupted?
RQ5: Does the heavy usage of social media lead to sleep disturbance?

Method
This is an exploratory study which aims to investigate some of the social and psychological factors that come into play when an individual uses the social networking interface through a variety of delivery media such as intelligent mobile phones, tablets and moblets which differ significantly in terms of user experience from personal computers. Furthermore, the study will focus exclusively on the heaviest users of social media today, young people between the ages of 18 and 25. Addressed will be issues such as the role of the user in online social groups, the type of device used, social displacement, personal feelings, and the role of parents’ education.

Research Instrument
The self-administered questionnaires consisting of 26 items in 3 pages were distributed during regularly scheduled class sessions. The instrument consisted of both Likert scale questions used to measure the individual’s perceptions, attitudes and behaviors as well as demographic questions and questions about media use patterns.

Independent Variables
Demographic Variables
Respondents gender was recorded as (1 = male, 2 = female). It was later recoded as a dummy variable (0 = male, 1 = female) for purposes
of analysis. Age was recorded as self reported in numbers. Since all participants were college undergraduates there was no need to measure education. However, the educational attainment of the parents was recorded. Two identical questions about both the father and the mother’s highest level of education attained consisting of eight choices: (1) less than grade school, (2) grade school, (3) intermediate school, (4) secondary school, (5) two-year diploma after secondary school, (6) college, (7) masters degree, (8) Ph.D. or equivalent.

In addition to parents’ education the instrument contained a question asking about the approximate total household income. The respondents were asked to choose among eight categories reported in Kuwaiti Dinar (1 KD = $3.00 US): (1) less than 700 dinars, (2) between 701 and 1000 dinars, (3) between 1001 and 1300 dinars, (4) between 1301 and 1600 dinars, (5) between 1601 and 1900 dinars, (6) between 1901 to 2200, (7) between 2201 and 2500, and (8) more than 2500 dinars. Finally, participants were asked to report the number of people in the family including mother, father and children who are living in the same dwelling.

**Hours Spent Using Social Media per Day**

Respondents were asked a single question about the total number of hours spent using social media daily on an eight point scale: (1) less than two hours, (2) from two to less than 4 hours, (3) from 4 to less than 6 hours, (4) from 6 to less than eight hours, (5) from eight to less than 10 hours, (6) from 10 to less than 12 hours, (7) from 12 to less than 14 hours, (8) more than 14 hours.

**Dependent Variables**

All dependent variables were measured using a Likart scale in a response to a statement on five points ranging from “strongly agree” (5) to “strongly disagree.” (1). Cronbach’s Alpha for this scale is (0.70) indicating a reliable scale.

**Social displacement**

The corresponding statement for this variable reads: “My usage of social media made me spend less time with my family compared to the past.”
Self-confidence
The corresponding statement for this variable reads: “I feel more confident when I communicate with others through social media compared to face-to-face interaction.”

Improved social life
The corresponding statement for this variable reads: “My social life has changed to the better because of social media.”

Anxiety
The corresponding statement for this variable reads: “I feel anxious when my social media are down due to malfunction from the mother company.”

Sleep disturbance
The corresponding statement for this variable reads: “I find it difficult to sleep at night after using social media.”

Sample
A self-administered survey questionnaire was used for this study. Because young people constitute the core users of social media, the data were collected from a sample of purposively selected college students. College students enrolled in coursework in mass communication at a large state university in Kuwait were asked to participate in this study. The questionnaires were distributed over a period of three months starting in March 2013. The total sample size was 808. Arabic was the language used in the questionnaire.

Students were assured of anonymity and confidentiality, and participation was voluntary. The age of the participants ranged from 18 to 39 with 93% ranging between 18 to 25 years of age. The mean age of the participants in the study was 21 years. The participants were 239 (29.6%) male and 569 (70.4%) female. This gender distribution reflects the enrollment profile of the university student body which is 70% female. Finally, since this is a state university, the overwhelming majority were Kuwaiti nationals by law so there was no need to record nationality.
Results

Key descriptive statistics of social media use patterns of the sample

Before we get to the research questions I will present some descriptive statistics about social media use patterns, so we may have a better understanding of the general parameters of the sample we are analyzing. This will help us to draw a better picture of social media landscape among young users in Kuwait.

Number of mobile phones

One may assume that under normal circumstances the average person owns one mobile phone. Some persons under certain conditions may own more than one mobile phone. For example, some companies give some of their employees a phone to be used for business communication only, especially if their job requires a great deal of traveling and contact must be assured at all times. However, you don’t expect that to be the case for college students. The numbers from our sample show this expectation to be erroneous. As table 1 indicates a full 51% of the sample own two mobile phones, and 7.5% own three phones or more. Compare that to the US for example where the average person has 1.57 phones (GSMA Intelligence, 2013). However, that figure includes not only phones, but also other mobile devices such as tablets with 3G and 4G connections. In our sample participants were asked about mobile phones only.

Table 1
How many mobile phones do you own?

<table>
<thead>
<tr>
<th>Number of Phones Owned</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>330</td>
<td>40.8</td>
</tr>
<tr>
<td>Two</td>
<td>413</td>
<td>51.1</td>
</tr>
<tr>
<td>Three or more</td>
<td>61</td>
<td>7.5</td>
</tr>
</tbody>
</table>

n = 804 (4 missing values)

Social medium used the most

When asked if they used social media, 98.9% of the participants
said yes. They were then asked about the social media app they used the most. In a separate question they were asked to choose which social media they used and they could choose all that apply. In this question, however, they were asked to choose only one from the ones they listed. Results can be found in table 2. WhatsApp is the leader by far (43.1%), followed by Blackberry Messenger (21.2%), Instagram (17.9%) and Twitter (14%).

Table 2
Which social medium you use the most?

<table>
<thead>
<tr>
<th>Social Medium</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>WhatsApp</td>
<td>348</td>
<td>43.1</td>
</tr>
<tr>
<td>BlackBerry</td>
<td>171</td>
<td>21.2</td>
</tr>
<tr>
<td>Messenger</td>
<td>145</td>
<td>17.9</td>
</tr>
<tr>
<td>Instagram</td>
<td>113</td>
<td>14.0</td>
</tr>
<tr>
<td>Twitter</td>
<td>7</td>
<td>0.9</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 785 (23 missing values)

Type of device used the most to access social media

Participants were asked to choose one device only among a choice of three; mobile phone, laptop or tablet. Results are revealed in table 3 which shows the mobile phone to be the overwhelming choice for accessing social media (96.5%). It is worth noting that all “intelligent” mobile phones such as the iPhone and Samsung Galaxy come with “Internet access anywhere” packages through mobile providers in Kuwait.

Table 3
Which device you use the most to access social media?

<table>
<thead>
<tr>
<th>Device</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Phone</td>
<td>780</td>
<td>96.5</td>
</tr>
<tr>
<td>Laptop</td>
<td>14</td>
<td>1.7</td>
</tr>
<tr>
<td>Tablet</td>
<td>7</td>
<td>0.9</td>
</tr>
</tbody>
</table>

n = 802 (6 missing values)
Using social media while driving

This may sound like a trivial matter, but it is not. In addition to the clear danger it represents, it is also a violation of traffic laws in Kuwait. Nonetheless, this variable could serve as a useful indicator of heavy reliance on social media. Participants were asked if they use social media while driving. The answer was a simple yes or no. Table 4 shows the results with a sobering 75.9% admitting to driving under the influence of social media. It is worth noting that the driving age in Kuwait is 18 years and from personal observation and judging by the traffic congestion around campus, almost all university students drive to school.

Table 4
Do you use social media while driving?

<table>
<thead>
<tr>
<th>Driving while using social media</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>613</td>
<td>75.9</td>
</tr>
<tr>
<td>No</td>
<td>193</td>
<td>23.9</td>
</tr>
</tbody>
</table>

\[ n=807 \ (1 \text{ missing value}) \]

Research Question 1

RQ1 asked if time spent with social media displaces time spent with family members. Hierarchical regression was used to examine this question. The results are summarized in table 5. The first model includes relevant demographic variables including gender, parents’ education, family size and family income. Demographic variables are used mainly as controls to separate their effect from the main variable which is time spent using social media. This variable was entered separately in model 2 after controlling for demographics.

As table 5 shows there were significant differences between males and females in social displacement with females more likely to spend less time with family members as a result of social media use than males \( (\beta = .091, p \leq .05) \). However, both groups experience social displacement as a result of time spent using social media alone, as shown in model 2 \( (\beta = .219, p \leq .001) \). The results of these two models tell us
that, overall the more time spent using social media the higher the chances that this will be done at the expense of family time with females more so than males.

**Table 5**

*Regressing Social Displacement on Demographics and Time Spent Using Social Media*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.228</td>
<td>.095</td>
<td>.091*</td>
<td>2.41</td>
</tr>
<tr>
<td>Father’s</td>
<td>.016</td>
<td>.032</td>
<td>.022</td>
<td>0.50</td>
</tr>
<tr>
<td>Education</td>
<td>.010</td>
<td>.032</td>
<td>.013</td>
<td>0.31</td>
</tr>
<tr>
<td>Mother’s</td>
<td>-.007</td>
<td>.020</td>
<td>-.015</td>
<td>-0.37</td>
</tr>
<tr>
<td>Education Family</td>
<td>.009</td>
<td>.017</td>
<td>.020</td>
<td>0.52</td>
</tr>
<tr>
<td>Income Family Size</td>
<td>.113</td>
<td>.019</td>
<td>.219**</td>
<td>6.01</td>
</tr>
</tbody>
</table>

**Model 2**

Time Spent

*Note: For Model 1, R = .100, R² = .010, F = 1.475, df=5. For Model 2, R = .239, R² = .057, F = 7.324, df=6. *p□. **p□ .001.*

**Research Question 2**

RQ2 asked if self confidence is enhanced as a result of social media use. More specifically it sought to answer the following question: Does a user feel more confident interacting with others online as opposed to offline? The results are shown in table 6. Again, two regression models were fitted to examine the separate effects of demographics and time spent using social media. As can be seen in model 1 females are more likely than males to feel confident through online interaction compared to face-to-face interaction than males (β = .147, p □ .001). However, time spent using social did not make a difference for either males or females.
Table 6
Regressing Self-Confidence on Demographics and Time Spent Using Social Media

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>(\hat{a})</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.384</td>
<td>.098</td>
<td>.147**</td>
<td>3.93</td>
</tr>
<tr>
<td>Father’s</td>
<td>-.015</td>
<td>.033</td>
<td>.019</td>
<td>-0.45</td>
</tr>
<tr>
<td>Education</td>
<td>.002</td>
<td>.033</td>
<td>.003</td>
<td>0.068</td>
</tr>
<tr>
<td>Mother’s</td>
<td>-.038</td>
<td>.021</td>
<td>-.074</td>
<td>-1.83</td>
</tr>
<tr>
<td>Education</td>
<td>-.005</td>
<td>.018</td>
<td>-.010</td>
<td>-0.25</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Size</td>
<td>.032</td>
<td>.020</td>
<td>.059</td>
<td>0.10</td>
</tr>
</tbody>
</table>

**Model 2**
Time Spent

Note: For Model 1, \(R = .180\), \(R^2 = 0.032\), \(F = 4.864\), \(df = 5\). For Model 2, \(R = .189\), \(R^2 = 0.036\), \(F = 4.864\), \(df = 6\). **\(p \leq .001\).

**Research Question 3**
RQ3 examined the relationship between social media use and social life. More specifically, does the heavy use of social media improve one’s social life in general? Table 7 shows the results of two regression models with demographics in the first and time spent using social media in the second. Accordingly, demographics made no difference while social media use made a significant difference (\(\beta = .086\), \(p \leq .05\)). This tells us that the more time one spends using social media the better they feel about their social life. This, of course does not mean that social media cause an improvement in social life, but it does tell us that the two are related as reported by respondents with one being an antecedent of the other.
Table 7
Regressing Improved Social Life on Demographics and Time Spent Using Social Media

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>( \hat{a} )</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.069</td>
<td>.084</td>
<td>.031</td>
<td>0.81</td>
</tr>
<tr>
<td>Father’s</td>
<td>.040</td>
<td>.028</td>
<td>.060</td>
<td>1.39</td>
</tr>
<tr>
<td>Education</td>
<td>.032</td>
<td>.028</td>
<td>.048</td>
<td>1.11</td>
</tr>
<tr>
<td>Mother’s</td>
<td>.071</td>
<td>.018</td>
<td>.039</td>
<td>0.96</td>
</tr>
<tr>
<td>Education</td>
<td>-.001</td>
<td>.015</td>
<td>-.001</td>
<td>-.03</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Size</td>
<td>.040</td>
<td>.017</td>
<td>.086*</td>
<td>2.33</td>
</tr>
</tbody>
</table>

**Model 2**
Time Spent

Note: For Model 1, \( R = .116, \ R^2 = .014, \ F = 1.99, \ df = 5. \) For Model 2, \( R = .144, \ R^2 = .021, \ F = 2.57, \ df = 6. \) *\( p \leq .05. \)

Research Question 4

RQ4 sought to examine the relationship between social media use and anxiety. Anxiety in this context is related to social media interruption. The question here is: Does heavy use of social media lead to anxiety about losing access to these media? The results are summarized in table 8. In model 1 we note that females are more likely than males to feel anxious about losing access to social media (\( \beta = .08, \ p \leq .05. \)) However, in model 2 we observe that regardless of gender heavy social media use is significantly related to anxiety about service interruption (\( \beta = .23, \ p \leq .001. \)) The overall finding of the two models is that heavy social media usage leads to anxiety about service interruption and this is especially true for females.
Table 8

Regressing Anxiety on Demographics and Time Spent Using Social Media

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>ˆa</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.212</td>
<td>.094</td>
<td>.085*</td>
<td>2.25</td>
</tr>
<tr>
<td>Father’s</td>
<td>-.038</td>
<td>.032</td>
<td>-.052</td>
<td>-1.20</td>
</tr>
<tr>
<td>Education</td>
<td>.056</td>
<td>.032</td>
<td>.076</td>
<td>1.77</td>
</tr>
<tr>
<td>Mother’s</td>
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<td>.020</td>
<td>.021</td>
<td>0.50</td>
</tr>
<tr>
<td>Education</td>
<td>-.006</td>
<td>.017</td>
<td>-.012</td>
<td>-0.32</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Size</td>
<td>.122</td>
<td>.018</td>
<td>.238**</td>
<td>6.58</td>
</tr>
</tbody>
</table>

Model 2

Time Spent

Note: For Model 1, R = .114, R^2 = .013, F = 1.916, df = 5. For Model 2, R = .262, R^2 = .069, F = 8.923, df = 6. *p □ .05 **p □ .001

Research Question 5

RQ5 looks at the relationship between time spent with social media and sleep disruption. Respondents were asked if they had difficulty sleeping at night after spending time using social media. As can be seen in table 9 there is a significant relationship between the time one spends using social media and having difficulty sleeping (β = .11, p ≤ .001). It appears that heavy social media use prior to bedtime makes it difficult to go to sleep. One might surmise that social media use being an interactive process leads to heightened mental activity which causes the user to be overly stimulated making it difficult to relax in short order which leads to disturbances in sleeping.
Table 9
Regressing Sleeplessness on Demographics and Time Spent Using Social Media

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.161</td>
<td>.104</td>
<td>1.54</td>
</tr>
<tr>
<td>Father’s</td>
<td>-.031</td>
<td>.035</td>
<td>-0.87</td>
</tr>
<tr>
<td>Education</td>
<td>.020</td>
<td>.035</td>
<td>0.57</td>
</tr>
<tr>
<td>Mother’s</td>
<td>.001</td>
<td>.022</td>
<td>0.03</td>
</tr>
<tr>
<td>Education</td>
<td>.014</td>
<td>.019</td>
<td>0.75</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Size</td>
<td>.067</td>
<td>.021</td>
<td>.119**</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Spent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: For Model 1, R = .072, R² = .005, F = 0.753, df = 5. For Model 2, R = .138, R² = .019, F = 2.359, df = 6. **p < .001.

Discussion
This exploratory study tried to ascertain the impact of social media usage on an individual’s life at the social as well as the psychological level. At the social level the study looked at the effect of social media usage on “social displacement.” Social displacement is defined as the time taken away from family interaction in favor of social media. Results showed that heavy social media usage does come at the expense of time spent with family members with being especially true for females.

Also at the social level the study examined the effect of social media on the individual’s perceived social life. Results have shown that those who spend more time using social media felt that their social life has improved as a result. What this indicates is that the more time an individual spends online the better his or her social life would be offline. This is supported by the finding that 62.8% reported that they met someone offline as a result of online encounters.

At the psychological level the study looked at the relationship
between social media usage and self-confidence. There was no significant relationship between the two variables. However, gender was a strong predictor of self-confidence with females feeling more confident online than offline compared to male who showed no difference in the two conditions. This is not entirely surprising in a traditional society like Kuwait where females experience far more restrictions in their social life than males.

Also at the psychological level the study examined the relationship between social media usage and anxiety. The type of anxiety the study looked at is “state anxiety” meaning anxiety experienced in a particular situation, in this case anxiety about social media being interrupted due to technical reasons beyond the individual’s control. Results showed that the more time an individual spends using social media the more likely he or she will feel anxious if the service is interrupted. This result is particularly true for females who showed more anxiety about service interruption than males.

Finally, the study explored the relationship between social media usage and difficulties in sleeping at night. A significant relationship was found between time spent using social media and having difficulty sleeping at night. There were no gender differences in this variable. It could be that heightened mental activity and perhaps emotional arousal which accompany real-time online interaction is the culprit. There is no definitive answer as of yet and further research needs to be conducted to examine the possibility.

**Limitations**

There are several limitations that might influence the generalizability of these findings. First, the cross-sectional data employed in this study do not warrant a claim of any causal relationships between the independent and dependent variables. Moreover, the sample which had female to male ratio of 2:1 could skew the results by showing more variance in the former compared to the latter. In fact, all results which showed gender differences were in favor of females. Perhaps a quota sample with equal numbers of males and females should have been
used to insure that we don’t get gender differences because of the uneven distribution.

Second, the operationalization some constructs might limit the scope of the study. All social and psychological variables in addition to the main independent variable were based on self-reports. For example, the main independent variable “time spent using social media” was measured by asking participants how much time they spend using social media on a typical day. Even though this question measures usage time accurately, uncertainty remains as to whether users are active all the time they are logged on to a specific application. Heavy and light users can be better analyzed in future studies by inquiring how many messages are sent or received each day.

Third, the operationalization of typical social media use provided a viable empirical portrait to examine the research questions, but might not precisely reflect the complexity of an individual’s use patterns. It is probable that each individual uses several social media functions (e.g. Chat, post pictures, audio or video) each day. Researchers would benefit from developing tools for capturing the complexity of social media and user patterns.

Finally, the fact that data collected for this study of social media was limited to college students’ use should be taken into consideration. Only investigating college students’ social media usage might not completely explain the electronic social networking behavior. Future researchers are also strongly encouraged to attempt to replicate these findings by analyzing users of different social media platforms (e.g. Twitter, Instagram...etc.) separately to account for the different features they provide.
References

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