Exploring social media fatigue among youth in the United Arab Emirates

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Abstract

Social media fatigue (SMF) has emerged as a recent phenomenon by which social media users feel fatigued and exhausted as a result of the great amount of technological and psychosocial pressures they are exposed to online, consequently affecting their psychological well-being. Therefore, this study explores the antecedents and consequences of SMF among young adults in the United Arab Emirates through a cross-sectional study with 350 users. From the lens of the stressor–strain–outcome framework, cognitive load theory, and selective exposure and selective avoidance theory, our study explores the relationship between the antecedents: three technological factors (information overload, system-feature overload, and privacy concerns), three psychosocial factors (fear of missing out, self-disclosure, and social comparison) and SMF. Additionally, the study explores the behavioral consequences resulting from SMF such as discontinued use, switching intention, and the proper coping mechanisms that social media users utilize when experiencing SMF. The empirical results show that the technological and psychosocial antecedents are significantly positively correlated with SMF. Furthermore, users who experience SMF engage in different usage behaviors including discontinued use, willingness to switch, and utilize coping mechanisms when they are exposed to SMF.

Keywords: information overload, fear of missing out, social comparison, switching intention, coping mechanisms

1. Introduction

With the diffusion of information and communication technologies and the development of media technology, the ability to communicate with others has been immense in both time and space. The proliferation of social media platforms has enabled people to create social bonds, share information, and enjoy the technological aspects of communication mediums virtually in a click of a button. However, this intensive use has created different types of pressure and overloads among social media users (Dhir, et al., 2019). These overloads vary from psychosocial overloads, which require the user to engage in the virtual social setting and practice their social role online, to the various technological overloads, which require the user to remain updated with new information, events, new updates and technological releases (Lee, Son and Kim, 2016). Thus, social media fatigue (SMF) can occur because of the constant pressure and overloads that individuals encounter on a daily basis. Social media fatigue is the feeling of tiredness and exhaustion that online users develop when they experience overloads caused by the extensive use of social media (Xiao and Mou, 2019). This fatigue develops several behavioral implications among social networking sites (SNS) users such as the desire to take a break from social media, which some refer to as a “digital detox”, either by reducing the frequency of usage of the social media platforms or discontinuing their usage forever (Nawaz, et al., 2018). Because many people find it difficult to discontinue their social media use, they refer to switching behaviors that include migrating from one platform to another (Hou and Shiau, 2019), or use a number of coping mechanisms, which can help them control the amount of fatigue they feel from the extensive use of SNS and platforms (Lee, Son and Kim, 2016).

Prior literature has shown that social media pressures are positively related to SMF causing multiple psychological and behavioral implications. However, data regarding the technological and psychosocial overloads influencing the SMF is limited in the Arab context, specifically in the context of the United Arab Emirates (UAE). The present study explores this recent phenomenon by examining the factors (overloads) that
induce the fatigue among young adults in the UAE, compare between demographic variables, e.g., gender, age, daily hours spent on social media, and years of experiencing SMF. Furthermore, this study aims to explore the coping mechanisms that the young adults use to cope with this exhaustion and fatigue resulting from SNS use.

1.1 The significance of the study

The intention of this study is to provide theoretical and practical contributions to the fields of communication, sociology, and psychology. As for the theoretical contributions, past studies have studied the discontinuance behavior of social media as an implication of the SNS fatigue. Yet, there is hardly any study that highlights the coping mechanisms that users adopt to control the feeling of stress as a possible implication of the SMF from the perspective of communication drawing on the theory of selective exposure and selective avoidance. Thus, this study aims to fill the gap in the literature by exploring the coping mechanisms that users adopt to adapt to the exhaustion. Second, it is not yet clear what impact SMF has on the users’ switching intention. Thus, this study aims to clarify the user’s migration from one platform to the other as a result of SMF. Third, past studies have focused on the positive aspects of social media usage, the patterns of use, and the gratifications obtained from this use, whereas this study aims to give a balanced perspective on social media use by highlighting the negative aspects of the intensive use which is SMF. Fourth, most of the studies that explored stress and fatigue resulting from social media use have adopted theoretical concepts embedded in psychology, while this research will use, in addition to two commonly used theories, the selective exposure theory, which is originated from psychology but widely used in communication and media research that none of the past studies have explored.

As for the practical contribution, young adults and other users will benefit from this study by identifying the SMF phenomenon and how extensive use of social media can trigger stress, exhaustion and depletion of energy levels as well as discussing the coping mechanisms, which the users can adopt to control the exhaustion resulting from the overload. It is also significant for social media designers to consider adding more features which can help the users control the excessive use and avoid the overload.

This research aims to explore the SMF phenomenon among the youth in UAE, the technological factors and psychosocial factors that trigger SMF, the differences between the demographic variables in experiencing SMF, and the different implications resulting from SMF among young adults.

2. Theoretical framework

2.1 The stressor–strain–outcome framework

The stressor–strain–outcome (SSO) framework was established initially to explore the relationship between work-induced stress and the mental well-being organizations (Dhir, et al., 2019). Also, it has been widely used in understanding the antecedents and consequences of technostress (Nawaz, et al., 2018; Fu, et al., 2020). Therefore, the SSO framework is adopted to explore how the antecedents (pre-existing technological and psychosocial factors) cause SMF and the behavioral implications resulting from this fatigue, e.g., discontinued behavior, switching intention and coping mechanisms of SMF. This model has three essential elements: The stressor(s), strain, and outcomes(s). The stressors are typically any factors, stimulators or causes that cause a problem, or a stressful situation. This stressful situation can be referred to as the strain, which induces certain outcomes that can inhibit the individual’s physiological, psychological, and cognitive processes. For example, users who compulsively use social media are prone to tiredness, emotional instability, and weariness from the platforms. Thus, they will either engage in behaviors that can reduce the stress they feel such as discontinuing their use temporarily or permanently, switch their use from the platform that causes the most stress, or/and adapt with this fatigue using several coping mechanisms either by actively choosing to control the fatigue by monitoring their use, or continuing to use social media without any proactive measure or willingness to change the stressful situation even when they are in the fatigued state.

2.2 Cognitive load theory

The cognitive load theory (CLT) is coined in the work of Sweller (1988, cited in Islam, et al., 2020, p. 4), which presumes that “the human working memory has a limited capacity which may be overloaded if presented with too much information”. According to previous studies (Xiao and Mou, 2019; Cao, et al., 2019), CLT can be useful in demonstrating how certain overloads and factors can lead to cognitive loads of the human working mind. These factors vary from fear of missing out, anxiety, online social comparisons, technological factors embedded in technologies, devices and social media, privacy concerns, etc. (Islam, et al., 2020). Thus, this theory can help explain the technological and psychosocial factors that induce SMF.

2.3 Selective exposure

The selective exposure theory is a notion that is widely used in communication research, which refers to the individual’s likelihood to select information that rein-
forces their personal views, perspectives, attitudes, and values while avoiding any conflicting information (McLennan, 1970). According to this theory, individuals are more likely to expose themselves to information that they perceive favorable, while at the same time ignore unfavorable information. Selective exposure can take different forms: (1) selective exposure to news or entertainment, (2) selective exposure to different issues or events, and (3) selective exposure to certain communication medium. Stroud (2018) offers an overview on a few possibilities of why selective exposure occurs among the individuals. Selective exposure can happen when a person is exposed to conflicting ideas or information, and to resolve this conflict, he/she tends to select information based on their pre-existent beliefs. Another explanation is that processing like-minded information reduces the number of cognitive processes by the individual. In other words, individuals will spend less effort when selecting like-minded information because it is “cognitively easier” (Stroud, 2018, p. 3). Also, mood and emotions can impact the selective exposure of the individuals. For example, when individuals have negative emotions or are in a negative state of mind, they tend to select information that enhances their mood, and avoid other type of information. Thus, this theory is applicable to our investigation on SMF as this study aims to explore the coping mechanisms (selective exposure and selective avoidance) that social media users adopt when facing social media overloads and fatigue.

2.4 Social media fatigue

Fatigue has been studied in many fields of research including clinical fields, social sciences fields, etc. Clinical research has identified fatigue as the constant feeling of exhaustion and tiredness resulting in decreased levels of physical, cognitive, and emotional abilities (Lian et al., 2018). While psychology has defined fatigue as the decreasing levels in production as a result of prolonged physical and mental activities, leading to exhaustion and fatigue (Xiao and Mou, 2019).

From the previous definitions, SMF can be identified as the users’ overwhelming feelings of tiredness, loss of interest, overloads, pressure, decrease in both needs and motivations of social media use and engagement. It is a “popularized” cultural reference that refers to the users’ dissatisfaction with social media, their need to either disconnect, switch the platforms, or cope with this exhaustion (Dhir et al., 2019). With the expansion of social media applications and the increasing number of their users, the fatigue experience has prevailed across its users leading researchers to investigate this fairly new phenomenon, mainly the antecedents lying behind SMF. In this study, antecedents refer to the possible stressors, overloads, factors and/or causes behind SMF (Dhir et al., 2019). The literature (Lee, Son and Kim, 2016; Reer, Tang and Quandt, 2019; Xiao and Mou, 2019) divides the main causes of SMF into two types: (1) technological factors (information-overload, system-feature overload, and privacy concerns), and (2) psychosocial factors such as social comparison, fear of missing out, self-disclosure, etc.

For the consequences of SMF, previous and recent literature (Lee, Son and Kim, 2016; Cao and Sun, 2018; Dhir et al., 2019; Nawaz et al., 2018; Cao et al., 2019) has mainly focused on the discontinued use that may occur for either short or long periods of time, or the actual termination of the platform. However, it has not been explored in the social media research context in the Arab region. Furthermore, users’ switching intention of the platform and the required coping mechanisms emerge to handle stressful situations (Hou and Shiau, 2019; Xiao and Mou, 2019; Lin et al., 2021) yet they have not been clearly covered in terms of their relationship with SMF as behavioral implications.

2.5 Technological antecedents as SMF triggers

Although social media provide their users the opportunity to connect, communicate, share knowledge and information, yet it can result in huge amounts of negative overloads when a person is highly exposed to these platforms. In the context of social media, technology overload refers to the imbalance that happens between the unexpected, large number of demands from the social media platforms, and the person’s limited ability to cope with all these demands (Xiao and Mou, 2019). When this misfit happens, individuals feel stressed and strained, resulting in the “fatigue” which translates in the discontinued use of social media either for short or long periods of time.

Lee, Son and Kim (2016) conducted a study on 201 students at the University of Yonsei in South Korea to examine the effects of the three above-mentioned factors, which may induce SMF, i.e. (1) information overload, (2) system-feature overload, and (3) privacy concerns. The study showed that the previous overloads have a significant positive relationship with SMF.

2.5.1 Information overload and SMF

Information overload occurs when the user is exposed to large amounts of information and news that is circulated in a fast-paced, non-consecutive order (Dhir et al., 2019). Social media offers the opportunity for many individuals to create thousands of channels and pages which disseminate different information that can be either irrelevant, fake, advertising materials, and repetitive. This can cause a burden on social media users because they are forced to process the excessive
amount of information, which surpasses their processing capability (Nawaz et al., 2018). Thus, information overload takes place once the excessive amount of information outweighs the individual’s needs, impacting their ability to recall important information. This results in the confusion of the user, followed by feelings of stress and fatigue (Nawaz et al., 2018; Dhir et al., 2019; Zhang, Ding and Ma, 2020).

2.5.2 System-feature overload and SMF

System-feature overload refers to the overload which social media users face from the continuous technical updates in the features of the social media applications, which users are forced to follow and update frequently (Fu et al., 2020). Many of these applications will not operate correctly in case they have not been updated. This puts pressure on users to update these applications and adapt to the new features which may be very different from the previous features the platforms had. The continuous changes in the features of the social media application will trigger stress, frustration, and exhaustion among the users (Xiao and Mou, 2019; Fu et al., 2020).

2.5.3 Privacy concerns and SMF

Privacy factor refers to the continuous presence and connectivity of technology users using their devices without any boundaries or limitations to both space and time (Brivio et al., 2018). Online privacy is one of the most controversial dimensions related to the safety of the internet and social media platforms. Since personal, financial, and browsing information can be easily compromised through hacking, tracking, or misused by web developers, third-party apps, malicious software, and hackers, this sparked controversy on the security of these platforms. Consequently, this leads the users to feel mentally burdened and pressured by their never-ending concerns when they are actively experiencing SMF. Based on prior literature, social media users who have privacy concerns are more likely to experience SMF.

2.6 Psychosocial antecedents as SMF triggers

Social media is a platform that was initially designed to build social connections and establish good relationships with the others. However, users can experience psychological pressures when they are exposed to large amounts of overloads which can endanger one’s mental health because of the unrealistic standards that young adults are rushing to meet (Maier et al., 2015, Kaur et al., 2021). These demands can vary from one’s feeling that they are missing out on important online events, news, activities, or their constant need to self-disclose themselves by sharing personal photos, mood and emotions online, or comparing themselves to peers and friends in a negative manner for their accomplishments, appearance, social status. Eventually, this leaves the users feeling drained because of the online social pressure they faced (Brivio et al., 2018). Reer, Tang and Quandt (2019) have highlighted the psychosocial dimensions and factors, which lead to the users’ online exhaustion: (1) self-disclosure, (2) social comparison, and (3) fear of missing out.

2.6.1 Self-disclosure

Self-disclosure is an intentional act performed by individuals, in which they reveal some personal information, thoughts, feelings, and personal experiences about themselves to others (Dienlin and Metzger, 2016). Self-disclosure involves a communication process between one individual who reveals his/her thoughts or feelings to one or more people through verbal and non-verbal cues in offline and online settings (Maier et al., 2015). In the social media context, users will disclose information about themselves through their personal profile, e.g., hometown, marital status, past experiences, current job, profile picture, etc., or update status about the current events in their lives, which can be either important or irrelevant, share videos, jokes, information, quotes and so on (Malik et al., 2020).

Motivations behind self-disclosure include many elements like social acceptance, developing and maintaining relationships, relatedness, achievements, and social control (Luo and Hancock, 2020). These elements are crucial for a user to gain certain social benefits. However, users who engage highly in self-disclosure acts on social media are perceived to suffer from social overload. This is because they must keep surfing the platforms’ pages and keep on track with feed pages that are filled with activities and posts by either family members, friends, and colleagues. This upkeep can trigger the overload among the users, leading them to have feelings of weariness and fatigue as a result (Dhir et al., 2019).

2.6.2 Social comparison

Social comparison refers to the individuals’ tendency to compare themselves to others either in a positive or negative manner (Verduyn et al., 2020). With the emerging online social network, recent literature (Latif et al., 2021; Tandon et al., 2021) has shown that individuals have been more often engaging in the negative form of social comparison especially online, which has raised concerns regarding the psychological well-being of the online users. One of the many reasons behind this is these platforms have created a wide virtual space that allows its users to engage heavily via interactive communication (Rosenthal-von der Pütten, 2019).
Furthermore, users can show themselves in an idealized version that at many times does not reflect their real offline personality.

For instance, online users can selectively choose to share the content that reflects the more positive side of their life, e.g., photos, videos, written posts, achievements, which lets others perceive them in a perfect filter (Kaur, et al., 2021). Thus, this perfect perception of the others’ lives may trigger negative emotions related to comparing one’s life to what they see on social media. This can create stress and exhaustion for the users who actively use social media (Tandon, et al., 2021).

### 2.6.3 Fear of missing out

Fear of missing out is a psychological concept referring to the feelings that a user will develop because he or she believes others are having more rewarding experiences than him/herself (Chai, et al., 2019). These users will feel overwhelmed when they view their friends or family members engaged in activities they are not involved in, which will lead them to perceive themselves as socially excluded and isolated from the online social circle. Research suggests that individuals who experience fear of missing out are more likely to be immersed in psychological needs of being continuously connected with others, so they do not miss out on what they perceive as important (Kaur, et al., 2021; Tandon, et al., 2021), as people who experience high levels of the fear of missing out are more likely to experience negative psychological and physiological implications. Thus, it is important to explore its relationship with SMF.

### 2.7 Demographic differences and SMF: gender, age, daily hours and years of experience

Recent literature reveals that there are gender differences in experiencing SMF, as women significantly engage more on SNS than men, and participate in online social activities, which lead them to experience social media overload, thus fatigue (Ji, Ha and Sypher, 2014; Vijayakumar and Pfeifer, 2020). Their extensive participation leads them to engage in more self-disclosure actions such as revealing personal information, feelings, personal pictures, etc. (Eliyana, et al., 2020). They are more likely to show online support to friends and family members and engage in online social activities. Thus, they are more likely to exhibit feelings of SNS exhaustion and fatigue than men. On the contrary, one study (Maier, et al, 2015) found that gender is not correlated with SMF. Young male adults are likely to develop feelings of SNS overload as much as female do. This can be related to the personality characteristics both males and females develop during the transitional phase of adolescence, and their desire to express themselves by creating online profiles through SNS and engaging in self-disclosure acts (Yang and Brown, 2016). Previous studies also emphasized the significance of age in determining the extent of SMF in SNS users (Ji, Ha and Sypher, 2014; Vijayakumar and Pfeifer, 2020). Younger adults seem to engage in the use of SNS for many different purposes such as social engagement, creating online identities, social bonding, expressing one’s identity, self-presentation (Eliyana, et al., 2020). The amount of effort and time that young adults devote to stay relevant online triggers SMF. Unlike elders, whose social media use mainly revolves around connecting with only close family and friends, and surfing news pages, as they do not feel the pressure to engage heavily in the online environment: hence, they experience much less overlaps (Dhir, et al., 2019). However, the study of Maier, et al. (2015) has also concluded that age along with gender is not correlated with experiencing SMF. One of the justifications behind this is SMF can relate to the volume, intensity, and frequency of social media use.

Furthermore, this study will explore the differences in the nationality as the UAE has more than 202 nationalities residing in the country. Also, the study will examine the differences in the daily hours spent on social media and the years of experience between the young adults experiencing SMF.

### 2.8 Consequences of SMF

#### 2.8.1 Discontinued behavior as a consequence

The great amount of both technological and psychological overloads that SNS users experience might provide an understanding on the possible consequences of SMF. Discontinued use emerges as an important implication, which refers to the willingness of network users to either limit, reduce, or stop their use of certain services for short or long periods of time (Fu, et al., 2020; Nawaz, et al., 2018). This behavior occurs when users are exposed to huge amounts of pressure and stress so they try to regulate these negative feelings by discontinuing their use of social media, which can take many forms, e.g., temporary pause or final termination of social media use. Although previous studies have illustrated how the users’ feelings of exhaustion and dissatisfaction emerge as a result of the pressure they face on social media, yet discontinued use of social media has not been explored as a consequence of SMF in the Arab social media context.

#### 2.8.2 Switching intention as a consequence

Switching intention on social media refers to the users’ willingness to migrate from one platform to the other due to users’ perceived satisfaction or dissatisfaction with the use of a certain platform. This satisfaction is
determined by a number of constructs, e.g., socializing, enjoyment, system features and ease of use (Hsu, Yu and Wu, 2014; Wu, et al., 2014; Hou and Shiau, 2019). As opposed to discontinued use of social media, service switching does not require the user to fully abandon the use of social media. Rather, user-switching behavior includes the individuals’ migration from one platform to another as a result of the exhaustion and dissatisfaction they might develop from the previous platform (Sun, et al., 2017). What remains unclear is the relationship between SMF and the switching intention of the online users. Thus, this study aims to clarify the user’s migration from one platform to the other as a result of SMF.

2.8.3 Coping mechanisms: adaptive and maladaptive coping as a consequence

However, in other cases, the users might develop coping strategies in which they are aware of the amount of exhaustion and overload they experience from SNS use, yet they will adapt with this exhaustion through some mechanisms that make them more comfortable in the use of SNS.

According to Guadioso, et al. (2017), the coping mechanisms can take two forms: adaptive and maladaptive mechanisms. Adaptive mechanisms express the positive strategies that users follow to manage stressful situations. These adaptive strategies include utilizing proactive measures that aim to change the factors that cause the stressful situation in a given environment or reducing the harmful effects from the factors. On the other hand, maladaptive coping refers to the individuals’ tendency to ignore the stressful situation by either denying their need to change the situation although they feel fatigued or disengaging with the stressful situation because they feel helpless or expect unwanted results in case of dealing with the situation (Xiao and Mou, 2019; Lin, et al., 2021). One of the most common behaviors that individuals use to cope with the massive pressure is through selective exposure. Selective exposure refers to the person’s selecting the information, medium or content which matches their own set of beliefs, values, or even their current state of mind. Stroud (2018) has argued that selective exposure can occur among individuals for mood management purposes such as anger, stress, and exhaustion. In the virtual world, users are likely to purposely select what content they are exposed to and avoid other content, which can have negative effects on their mood, by using features that social media has offered for its users like restricting, blocking, choosing the people you are following (Malik, et al., 2020). For instance, Instagram has a new feature “not interested” that comes along with any post on the users’ feed. In case the user is exposed to some posts that do not match his/her own interests, they would click on this feature to reduce the chances of appearing in their feed again (Instagram, 2020). Similar features are available on other social media platforms such as Facebook, Twitter, Snapchat, YouTube, etc. These features provide SNS users a better experience while using and engaging in the online space as they provide the user with better control and customization of the SNS feed. In the context of social media, this study will explore the relationship between SMF and the coping mechanisms.

2.9 Research design

The design of research is based on finding answers to the following research questions:

RQ1: How do different demographics experience SMF?

RQ2: What are the technological and psychosocial overloads that impact SMF in young adults?

RQ3: What are the coping strategies and usage behaviors that young adults use to cope with SMF?

2.9.1 Measurements

The constructs used in the questionnaire were borrowed from previous studies (see Appendix A) and modified to fit our study’s context to assure content validity. As per the validity of the survey, the researchers completed a research brief along with a copy of the questionnaire that were handed to the Research Ethics Committee in the University of Sharjah to test the content validity of the survey. The researchers took the feedback into consideration and completed any necessary modifications that aim to improve the questionnaire’s validity, e.g., modification in item wording. To ensure face validity, a pilot study was conducted including 15 young adults through online survey who actively use social media. The participants were encouraged to express their feedback and point out any possible issues they might face and other beneficial suggestions that aim to improve the survey. To test the reliability of the measurements, Cronbach’s alpha (Cronbach’s $\alpha$) was run for all the study’s constructs. All the constructs scored greater than 0.7 in the Cronbach’s alpha reliability test, except for AC3 and MC3 as they were removed because they scored lower than 0.7. Thus, the study measurements were considered reliable as the Cronbach’s alpha values are above 0.7 as recommended by Cortina (1993).

2.9.2 Procedure

A convenient nonprobability sample of young adults in UAE were recruited through Survey Monkey. Survey Monkey is an online website with imbedded survey
3. Findings and data analysis

In the present survey the number of participants is denoted with N, mean value with M, standard deviation with SD; t and p are used for statistical hypothesis testing and null hypothesis significance testing, respectively. On average, 57% of the respondents were females while 32% were males. Most of the participants were aged between 18 and 25 (SD = 3.598), while the remaining were aged between 26 and 35 (SD = 3.490). Participants who are UAE nationals constituted around 54% (N = 188) of the sample, while other participants defined themselves as “Resident” with 46% (N = 162). A demographic breakdown of the sample is presented in Appendix B.

3.1 Relationship between demographic variables and SMF

The first research question asked if there is an association between the different demographic characteristics of the participants as the independent variable and SMF as the dependent variable. The demographic variables include gender, age and nationality. In order to test the relationship, an independent samples t-test was conducted between the two variables to determine if there is any statistically significant difference between the means in both of the groups. A total of three t-tests has been conducted separately on gender, age and nationality along with the dependent variable since SPSS allows to compare only two groups in one setting. According to the results of the t-test, there is a significant difference between males (M = 7.50, SD = 3.54) and females (M = 8.34, SD = 3.52) in experiencing SMF, with t(350) = 2.20, p = 0.028. These results suggest that gender is associated with SMF as both males and females may experience social media fatigue differently (see Table 1). According to the results of the t-test, there was no significant difference between the first age group from 18 to 25 (M = 8.06, SD = 3.59) and the second age group from 26 to 35 (M = 7.87, SD = 3.49) in experiencing SMF, with t(350) = 0.49, p = 0.62. These results suggest that age is not associated with SMF as young adults aged from 18 to 35 can equally experience SMF. According to the results of the t-test, there was no significant difference between UAE participants (M = 8.02, SD = 3.40) and non-UAE participants (M = 7.94, SD = 3.72) in experiencing SMF; with t(350) = 0.20, p = 0.83. These results suggest that nationality is not associated with SMF as UAE and non-UAE young adults can equally experience SMF (see Table 1).

3.2 Pearson product-moment correlation coefficient r between study measures characteristics and SMF

In Table 2 are presented results of survey conducted in present research, based on N = 350 and significance p (two-tailed) = 0.000. Correlation r is significant at the 0.01 level (two-tailed).

Table 1: Independent samples t-test between demographic variables and SMF

<table>
<thead>
<tr>
<th>Demographic characteristics and SMF</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p (two-tailed)</th>
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</thead>
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<tr>
<td>Male</td>
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<td>3.540</td>
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<td>3.522</td>
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<td>Age group</td>
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<td></td>
</tr>
<tr>
<td>18–25</td>
<td>204</td>
<td>8.06</td>
<td>3.598</td>
<td>0.491</td>
<td>0.624</td>
</tr>
<tr>
<td>26–35</td>
<td>146</td>
<td>7.87</td>
<td>3.490</td>
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</tr>
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<td>3.400</td>
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</tr>
<tr>
<td>Resident</td>
<td>162</td>
<td>7.94</td>
<td>3.726</td>
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</table>
3.2.1 Correlation between social media usage characteristics and SMF

A Pearson product-moment correlation coefficient $r$ was calculated to assess the relationship between the number of hours spent on social media on a daily basis, years of experience and SMF. The results show that there is a significant positive correlation between the number of hours spent and SMF, $r = 0.271$. Moreover, years of experience have also shown a significant positive relationship with SMF, $r = 0.456$, which means that participants who used social media for a longer period of time have reported experiencing SMF more than those who did not (see Table 2).

3.2.2 Correlation between technological overloads and SMF

A Pearson product-moment correlation coefficient was calculated also to assess the relationship between the overall technological overloads and SMF. There is a significant positive correlation between the two variables, $r = 0.546$. The same applies for individual characteristics in this group, comprising information overload, system-feature overload and privacy, with similar $r$ values (between 0.416 and 0.516) (see Table 2).

3.2.3 Correlation between psychosocial overloads and SMF

When assessing the relationship between the overall psychosocial overloads and SMF using a Pearson product-moment correlation coefficient, the significant positive correlation is even stronger, $r = 0.741$. For individual characteristics in this group, the strongest positive correlation with SMF shows fear of missing out, followed by social comparison and then self-disclosure, which shows the weakest correlation with SMF among all characteristics considered in the study ($r = 0.284$) (see Table 2).

3.2.4 Correlation between the users’ discontinued use, switching intention and other coping mechanisms and SMF

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the users’ discontinued behaviors and SMF. There is a significant positive correlation between the two variables, $r = 0.583$. Also, switching intention significantly correlates with SMF, $r = 0.474$. Furthermore, the results show that there is a significant positive relationship between the coping mechanisms and SMF, with $r = 0.603$ (see Table 2).

4. Discussion and conclusions

4.1 Key findings

This study examined the SMF phenomenon by highlighting its antecedents in terms of technological and psychosocial overloads, as well as its precedents – discontinued use, switching behavior and other coping mechanisms exerted by young adults in UAE.

The first research question in this study explored the differences in the demographic characteristics, namely gender, age, nationality, number of hours spent on social media, years of experience of the participants with SMF. The results show that gender, number of hours spent on the social media daily and years of expe-
ience are significantly correlated to SMF. According to our study, female participants experience SMF more than their male counterparts. This result is consistent with findings of Vijayakumar and Pfeifer (2020), and Ji, Ha and Sypher (2014), as women are more likely to engage in social media activities than men and participate in online social activities, which lead them to experience social media overload, thus fatigue. Also, this study found that the more years of social media use and the more hours a user spends on social media per day, the more likely the user will experience SMF. Because of using social media over longer periods of time and for many hours a day, this can create a cognitive load and interfere with the individual's day-to-day tasks and other obligations. However, this result is contradicted by a previous study (Cao and Sun, 2018) given the reason that users may have the autonomy to control their use.

On the other hand, age and nationality are not correlated with SMF, in other words, there were no significant differences found between the two categorical age groups and nationality in experiencing SMF. Young adults can equally experience SMF regardless of their age and nationality. This result is also consistent with the study of Maier, et al. (2015) as it concluded that age is not correlated to SMF.

The second research question examined the role of technological overloads and psychosocial overloads, which impact SMF in young adults. Three technological overloads were assigned in this study: information, system-feature, and privacy concerns. The results show that the information overload positively correlates with SMF. This finding is in agreement with previous studies (Nawaz, et al., 2018; Fu, et al., 2020) as social media users are flooded with the huge amount of news and information they receive via social networking sites and mobile applications, which exceeds their processing capacities, resulting in feelings of fatigue and exhaustion. Likewise, system-feature overload positively correlates with SMF. Associated with a previous study by Fu, et al. (2020), system-feature overload can leave a user feeling pressured and exhausted because of the endless, continuous technical updates required by social media applications. Moreover, the privacy factor is positively correlated with SMF. In line with previous studies (Salo, Pirkkalainen and Koskelainen, 2017; Lim and Choi, 2017; Bright, Lim and Logan, 2021), privacy has been emphasized as one of the most important factors to look at when exploring the fatigue phenomenon among social networking users. The online users’ privacy concerns are often related with their perception of losing their own autonomy and control over securing their personal information, contact details, location, etc., which leads to less engagement on these social media applications (Bright, Lim and Logan, 2021). Some of the leading social networking companies like Facebook, which now owns Instagram and WhatsApp, has become the focus of attention and concern of millions of users around the world about the alleged reports of the company’s misuse of its users’ personal data, ultimately leaving users question the safety of these social networking apps (Jozani, et al., 2020; Chung, et al., 2021). As for the psychosocial overloads, three factors were assigned in this study: fear of missing out, self-disclosure, and social comparison. Fear of missing out has a significant correlation with SMF. In alignment with recent studies (Malik, et al., 2020; Tandon, et al., 2021), this result implies that users who experience SMF are more likely to stay connected to social media for most of their time because of fear of missing out on some rewarding experiences that their friends might have, social events, news, information, and other fun online activities. In addition, they might exhibit feelings of social comparison with others who usually share their progress and other personal accomplishments online. Similarly, self-disclosure has also a positive association with SMF. Along with previous studies (Dhir, et al., 2019; Malik, et al., 2020), this finding can be linked with the users’ desire to reflect their own self-image with their success in life and other accomplishments resulting in revealing some sensitive personal information in their page, direct messages or even virtual groups, which ultimately leaves the users feeling extremely fatigued (Dhir, et al., 2019). Also, this can be explained by the fact that users who engage in self-disclosure behaviors are more likely to feel fatigued since many online connections and peers may interact with the users’ posts, etc. Eventually, the users will feel fatigued from the great amount of messages and notifications they receive (Kaur, et al., 2021).

Social comparison is also positively associated with SMF. Previous studies (Malik, et al., 2020; Kaur, et al., 2021; Tandon, et al., 2021) confirmed that individuals do compare themselves to other online users who they perceive as superior or more successful in life which triggers negative emotions and feeling of unworthiness. Furthermore, users who participate actively on social media by sharing parts of their “glamourized” lives usually select only the good parts to show. As a result, this may induce feelings of jealousy, emotional instability, dissatisfaction, and unworthiness. Consequently, the users’ who compare themselves to others will most likely harm their psychological well-being and cause fatigue (Maier, et al., 2015).

The third research question explored the behavioral implications that may occur as a result of SMF such as discontinued use, switching intention and other coping mechanisms. Discontinued use has a positive correlation with social media fatigue. In line with previous studies (Cao and Sun, 2018; Fu, et al., 2020), feelings of exhaustion and weariness from social media
conclusively where young adults still do use social media.

4.2 Conclusions

Our study presents an overview on the SMF phenomenon among young adults whose psychological well-being is affected by the overloads and the continuous pressures that have existed in social media platforms especially in these uncertain times of COVID-19 which exposed millions around the world to feel insecure and pressured. Social media has been a main communication medium through this pandemic that supplied individuals with news, information, and entertainment during the lockdown period. For this purpose, the study explored the relationship between technological (information, system-feature, and privacy concerns) and the psychosocial (fear of missing out, self-disclosure, social comparison) antecedents of SMF among young adults in UAE. Furthermore, the study examined the usage behaviors (discontinued use, switching behavior) that occur as a result of the exhaustion and the other coping mechanisms (adaptive and maladaptive) in which the young adults use to control their feelings of fatigue, exhaustion and weariness from the intensive social media use. Also, the study highlighted the differences among demographic characteristics (gender, age, nationality, number of hours spent on social media daily, years of experience) in experiencing SMF. The findings of this study show that the two types of overloads are significantly positively correlated with SMF. Technological overloads impact the users’ ability to use and interact with the platforms as a result of the abundance of unrelated, false and repetitive information found in many pages, the developers’ continuous change of the platforms’ features and interface, along with some privacy concerns regarding preserving the users’ personal information and the misuse of this information for commercial reasons. While psychosocial overloads impact the users’ ability to use the platform as a result of connecting to social media most of the times, engaging heavily in the social platform by expressing opinions, attitudes, and emotions as a self-expression, keeping up with family members and friends by liking and commenting, and comparing oneself to others online. Also, the study identifies two usage behaviors (discontinued use, switching behavior) that users may adopt when they feel exhausted with the use of social media. Users may adopt discontinued behavior, which includes the termination of using the platform for either short or long periods of time. This can take place in extreme situations when the user will usually feel dissatisfied and fatigued from the usage of a platform. Users may also try switching the platform to another convenient platform that does not cause pressure to the users. Lastly, the study discusses two types of other coping mechanisms (adaptive and maladaptive) that does not require either the abandonment of the platform or migration from one platform to another. The adaptive mechanisms the young adults incorporate to deal with the exhaustion include proactive measures and building healthy habits of social media usage like tracking the usage time, choosing the people and the pages in which they would like to connect with. The maladaptive mechanisms can be described as a more negative approach of dealing with the fatigue as it usually takes place unconsciously where young adults still do use social media although they feel fatigued and overloaded.

4.2.1 Theoretical implications

The study’s findings offer several important theoretical implications to the existing literature. First, unlike prior studies, which have concentrated on the positive implications of social media, this study aims to serve a balanced perspective of the social media’s dark side by exploring the relationship between the SMF phenomenon and its antecedents (technological and psychosocial overloads), as well as the relationship between SMF and its consequences (behavioral implications and coping mechanisms). Moreover, this is the first study of its kind to be conducted on the SMF phenomenon in the Arab literature and most specifically in the UAE setting. Second, this study offers a novel contribution to the field of cyberspsychology and technostress by showing how the two types of overloads are significantly associated with SMF. Such association illustrates

...
how different overloads can affect the online users’ psychological well-being and their social media use. Third, the study was conducted during the COVID-19 pandemic and thus it may present rich insights into the young adults’ use of social media in emergency times, which can have major effects on their use of social media as a main tool for communication. Lastly, unlike previous studies, which focused on discontinued behavior as a consequence of SMF, our study presents an additional, new behavioral implication which is the switching behavior along with the discontinued use. Switching behavior has not been widely explored in the context of SMF as a consequence. In addition, our research presents the other coping mechanisms (adaptive and maladaptive) that have been scarcely discussed in the light of SMF phenomenon. This is the first study to explore the coping mechanisms from a communication perspective drawing on the selective exposure and selective avoidance theory.

4.2.2 Practical implications

Our study offers several practical implications for social media users, social media providers and developers to take into consideration. As for the social media users, they must understand the impact of the extensive, uncontrollable use of social media on their psychological well-being. Therefore, we recommend social media users, especially young adults, to monitor their social media usage and adopt healthy habits of usage in order to avoid exhaustion, cognitive load, and depletion of energy levels, in particular in uncertain situations like pandemics and lockdown. Furthermore, we advise young adults to take proactive, adaptive measures when using social media like seeking help from professionals and close people, selecting the pages that report official news and factual information and avoiding unofficial news pages, as well as filtering out any other type of content or individuals that may disturb their sense of well-being. In extreme situations, we additionally advise young adults to reduce their usage of the platforms or take a short break from using social media until they recover from the harmful impacts of the social media overloads. For social media developers and providers, our results indicate the drivers of SMF, the behavior usage, and mechanisms in which the young adults follow to lessen their dissatisfaction and exhaustion from social media. To avoid the users’ termination, long discontinued use, or even migration from the platform to another one, social media developers must develop new features that work through artificial intelligence to set alerts next to any misleading information or news. Furthermore, developers must take strong precautions to protect the users’ identities and personal information and let the online users know of any changes that may occur to their privacy policy and terms of use. Moreover, web developers must take into consideration the opinions and ratings of the platform’s users in order to enhance the users’ experience.

4.2.3 Limitations and future research

First, the findings of the study cannot be generalized since the targeted population were young adults in the UAE. Future research should explore these correlations among other demographic categories such as middle-aged workers, housewives, cultural background, online users in the Arab countries, users of mobile instant messaging applications like WhatsApp and Telegram instead of social media. Second, the study took place during a critical time of COVID-19 pandemic, which made communication difficult with the respondents. Third, this study is based on a cross-sectional data collection. Future scholars may consider conducting a longitudinal study to observe differences or causalities between the studied variables. Fourth, future scholars are encouraged to use related yet unusual study constructs such as personality traits, sleeping difficulties, emotional well-being, etc. Lastly, future work should focus on conducting studies using different methodologies, such as focus groups, interviews, etc. Qualitative methods offer a deep insight on the studied phenomenon, which can generate more understanding and show different viewpoints that quantitative methods are not able to tackle upon.

Acknowledgement

We kindly acknowledge the Research & Ethics Committee for their guidance and support.

References


## Appendix A: Driving force rank

<table>
<thead>
<tr>
<th>Study measures</th>
<th>Measurement item</th>
<th>Source</th>
<th>Cronbach alpha</th>
</tr>
</thead>
</table>
| **Social media fatigue (SMF)**    | SMF1 – Generally, I feel that I have lost interest when using social media  
SMF2 - Generally, I feel drained when using social media  
SMF3 – Generally, I feel more stressed and pressured when using social media during the COVID-19 pandemic | Xiao and Mou, 2019                                                            | 0.837          |
| **Information overload (IO)**     | IO1 – I feel overwhelmed with the excessive amount of news and information that I can process daily on social media  
IO2 – I feel that a huge part of the information available on social media does not match my interests  
IO3 – I feel that I cannot tell the difference between important and unimportant information available on social media | Zhang, et al., 2016;  
Cao and Sun, 2018                            | 0.842          |
| **System-feature overload (SO)**  | SO1 – I feel that there are a lot of technical updates in social media  
SO2 – I feel difficultly using social media due to the continuous updates  
SO3 – I feel that I need some time to adjust to the new updates in social media | Zhang, et al., 2016                      | 0.717          |
| **Privacy concerns (PC)**         | PC1 – I feel worried about my privacy in social media  
PC2 – I feel worried that someone will have access to my private information or follow my activity on social media  
PC3 – I feel worried that the information I submit to social media could be misused | Dinev and Hart, 2006                     | 0.779          |
| **Fear of missing out (FOMO)**    | FOM01 – I feel that I want to stay connected to social media  
FOM02 – I feel anxious when I know of an important event or information too late  
FOM03 – I make sure to use any new social media because of the fear of missing out | Przybylski, et al., 2013                    | 0.968          |
| **Self-disclosure (SD)**          | SD1 – I make sure to share private information about myself like my interests, achievements, opinions, and some personal photos on social media  
SD2 – I express my personal feelings and emotions on social media  
SD3 – I feel that the information I share on social media reveals a lot about myself | Posey, et al., 2010                        | 0.856          |
| **Social comparison (SC)**        | SC1 – When I am on social media, I tend to compare myself with others  
SC2 – When I am on social media, I often compare my own accomplishments with others  
SC3 – When I am on social media, I compare my situation in life with that of others | Gibbons and Buunk, 1999                    | 0.708          |
<table>
<thead>
<tr>
<th>Study measures</th>
<th>Measurement item</th>
<th>Source</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discontinued behavior (DB)</strong></td>
<td>DB1 – Sometimes, I take a short break from social media</td>
<td>Maier, et al., 2015</td>
<td>0.811</td>
</tr>
<tr>
<td></td>
<td>DB2 – I have completely stopped using one or more social media</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DB3 – I stopped using one social media and started using another one</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Switching intention (SI)</strong></td>
<td>SI1 – I am considering switching from one social media to another</td>
<td>Chang, Liu and Chen, 2013</td>
<td>0.734</td>
</tr>
<tr>
<td></td>
<td>SI2 – The chance of my switching to another social media is high</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SI3 – I am determined to switch to another social media</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adaptive coping mechanisms (AC)</strong></td>
<td>AC1 – I focus my efforts on doing something towards the pressure I feel on social media like tracking my usage time and choosing the people and pages I’d like to follow</td>
<td>Gaudioso, Turel and Galimberti, 2017</td>
<td>0.817</td>
</tr>
<tr>
<td></td>
<td>AC2 – I focus my efforts on doing something towards the pressure I feel on social media like ignoring unwanted people and pages, and block them if necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AC3 – I have been getting help and instrumental support from other people regarding dealing with stressful situation on social media</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maladaptive coping mechanisms (MC)</strong></td>
<td>MC1 – I use social media even when I feel pressured and exhausted</td>
<td></td>
<td>0.750</td>
</tr>
<tr>
<td></td>
<td>MC2 – I don’t feel like I need to change my usage habits of social media even though I feel pressured and exhausted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MC3 – I have been refusing to believe that mess has happened on social media</td>
<td></td>
<td></td>
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</tbody>
</table>
Appendix B: Demographic characteristics frequencies

<table>
<thead>
<tr>
<th>Demographic characteristics and SMF</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>150</td>
<td>42.9</td>
</tr>
<tr>
<td>Female</td>
<td>200</td>
<td>57.1</td>
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<tr>
<td>Total</td>
<td>350</td>
<td>100.0</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–25</td>
<td>204</td>
<td>58.3</td>
</tr>
<tr>
<td>26–35</td>
<td>146</td>
<td>41.7</td>
</tr>
<tr>
<td>Total</td>
<td>350</td>
<td>100.0</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAE</td>
<td>188</td>
<td>53.7</td>
</tr>
<tr>
<td>Resident</td>
<td>162</td>
<td>46.3</td>
</tr>
<tr>
<td>Total</td>
<td>350</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 hour</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>1–2 hours</td>
<td>32</td>
<td>9.1</td>
</tr>
<tr>
<td>3–5 hours</td>
<td>100</td>
<td>28.6</td>
</tr>
<tr>
<td>More than 5 hours</td>
<td>217</td>
<td>62.0</td>
</tr>
<tr>
<td>Total</td>
<td>350</td>
<td>100.0</td>
</tr>
<tr>
<td>Years of experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2 years</td>
<td>13</td>
<td>3.7</td>
</tr>
<tr>
<td>3–5 years</td>
<td>79</td>
<td>22.6</td>
</tr>
<tr>
<td>6–8 years</td>
<td>123</td>
<td>35.1</td>
</tr>
<tr>
<td>More than 8 years</td>
<td>135</td>
<td>38.6</td>
</tr>
<tr>
<td>Total</td>
<td>350</td>
<td>100.0</td>
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