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**Mestrado em Gestão de Informação**

Master Program in Information Management

**THE IMPACT OF SOCIAL MEDIA OVERUSE  
ON PSYCHOLOGICAL WELL-BEING**

A STUDY ON INSTAGRAM USERS

Rahaf MHD Hisham Al Hourri

Dissertation presented as partial requirement for obtaining  
the Master's degree in Information Management

NOVA Information Management School  
Instituto Superior de Estatística e Gestão de Informação  
Universidade Nova de Lisboa

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# **THE IMPACT OF SOCIAL MEDIA OVERUSE ON PSYCHOLOGICAL WELL-BEING**

By

Rahaf MHD Hisham Al Hourri

Master Thesis presented as partial requirement for obtaining the Master's degree in Information Management, with a specialization in Information System and technology management.

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## DEDICATION

I dedicate this work to the ones who supported me through the long days and nights, my Dad and Mom you are everything to me and I promise you to make you proud of me.

And to the one who supported me during my learning journey since I arrived to Portugal Dr. Helena Barroco she was more than a family to me.

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## **ABSTRACT**

Over the past years, social media websites have experienced rapid growth in popularity, becoming a ubiquitous aspect of modern communication and culture, with the ability to connect individuals across the globe. The number of social media users has consistently grown. But on the other side, users are reducing social media consumption due to social media fatigue, especially among youth. In order to have a better understanding of this phenomena, we developed a model to test the impact of social media overuse on youth psychological well-being. This research was conducted in Damascus, Syria. We collected 406 responses from college students in order to test the model hypothesis. The results indicated that social media overuse and FoMO will strongly lead to fatigue which will later result into sleeping problems, Low self-esteem, and depression among youth. However, gender differences play a significant role as a moderator factor between social media fatigue and the outcomes, the impact was indicated on depression and low self-esteem, with a high percentage of females compared to males.

## **KEYWORDS**

Social media overuse; FoMO; Social media fatigue; Depression; low self-esteem; Sleeping problems

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## LIST OF ABBREVIATIONS AND ACRONYMS

<b>VIF</b>	Variance Inflation Factor
<b>CR</b>	Composite Reliability
<b>SMO</b>	Social Media Overuse
<b>SMF</b>	Social Media Fatigue
<b>FoMO</b>	Fear of Missing Out
<b>SP</b>	Sleeping Problems
<b>DEP</b>	Depression
<b>LSE</b>	Low Self- Esteem

## 1. INTRODUCTION

The use of social media has grown to be one of the most common social activities, Due to their widespread use and wide range of opportunities (Kircaburun et al., 2020). But on the other hand, many people have stopped using social media either permanently or temporarily due to social media fatigue (Dhir et al., 2018). Social media fatigue refers to social media user's propensity to cut back from social media usages when they're feeling overwhelmed. According to (Lee et al., 2016) has characterized social media fatigue as a state in which users of social media become mentally exhausted due to the overwhelming amount of technology, information, and communication they encounter through their engagement with various online social media platforms. Due to this negative emotions social media users are more likely to stop engaging in online social interactions in the future, whether long-term or short-term.

Despite the negative outcome of using social media platforms, people tend to seek out and acknowledge other people activities, they are concerned about not missing out on any activities or experiences with their friends or family (Dhir et al., 2018). According to (Beyens et al., 2016) found that people who experience FoMO are prone to have psychological desires to be in touch and informed of what other people are doing. (Przybylski et al., 2013) has defined FoMO as a pervasive apprehension that others might behave in rewarding experiences from which one is absent. FoMO is described as the desire to remain connected with what's happening around them. High engagement with social media and excessive use result into social media fatigue (SMF) (Zheng & Lee, 2016).

In the past years, academics have conducted several empirical research investigating the causes and effects of social media use on people mental health, they discovered that social media use was significantly associated with depression and many other psychological problems. A study conducted by (Hoare et al., 2017) of 297 young students has found that a higher level of depression was found among adolescents with intensive internet usage. (Han, 2018) argued that social media users are more likely to express social media fatigue, including information, system, and social overload which can ultimately lead into depression and anxiety.

Frequent use of social media has a big impact on sleeping quality (Levenson et al., 2016) have discussed that sleeping quality and quantity are associated with social media use. In a systematic evaluation by (Tandon et al., 2020) he concluded that young people who use social media excessively suffer from poor sleep, anxiety, and depression. Recent research has provided a proof of the negative emotional and behavioral impact of social media fatigue, for instance, those who experience social media fatigue, report having lower life satisfaction and lower general well-being (Alfasi, 2022). Studies have neglected the relationship between social media fatigue and low self-esteem. Few studies have investigated the relationship between these two factors. Social media use and self-esteem levels have been linked in some research, for instance, according to (Woods & Scott, 2016) reported that when users receive either positive or negative comments on social media profiles it might decrease or increase self-esteem. Different frameworks have been used in prior research to examine the impact of social media overuse on individual well-being.

## **IMPORTANCE OF THE STUDY**

This study explores an important and timely topic; as social media use has become increasingly prevalent among youth. The impact of social media on mental health and psychological well-being is an area of concern for many researchers. This study provides valuable insight for a better understanding of the relationship between social media overuse, FoMO, and social media fatigue, by focusing on the negative outcomes, such as depression, low self-esteem, and sleeping problems, particularly among young people who may be more vulnerable to the negative effects of social media.

## **RESEARCH QUESTION**

Given the potential negative effects of social media overuse, FoMO, and social media fatigue on psychological well-being, it is important to examine the role of gender differences as a moderator factor on depression, low self-esteem, and sleeping problems among youth. We developed this research question.

***Q1. Do gender differences have a moderate role in the relation between social media fatigue and the outcomes?***

Social media fatigue has many negative impacts on psychological well-being. Most studies have reported that females have experienced negative emotions more than males. According to (Woods & Scott, 2016) found that females tend to use social media more than males and that will result into having more poor sleep quality, lower self-esteem, and high level of feeling depressed and anxiety compared to men.

## 2. LITERATURE REVIEW

### 2.1. THEORETICAL BACKGROUND

Social media networks are websites or platforms such as Facebook, Instagram, and Snapchat, where users can create a profile and start connecting with other people, sharing experiences, and receiving support which can positively impact our mental health. But, on the other hand, social media could bring negative results into our life, such as depression, and anxiety. Social media has become a significant element in our life, especially among youth, it influences the way we live in every possible aspect, and it allows many people to connect and communicate with each other in a simple way. During the last few years, social media technology has grown quickly and the number of users is increasing rapidly, for instance, recent data have shown a noticeable increase in the number of Instagram active users, according to (Statista, 2022) in June 2018, there have been 100 million more daily Instagram story users comparing to January 2019. The impact of social media on psychological well-being is a complex and multifaceted issue. However, it can contribute to several negative mental health outcomes. The dark side of social media has attracted scholars' attention in the last decade from both side psychological and mental health. Indeed, much evidence points to the connection between social media overuse and various aspects of youth well-being such as sleep and mental health issues.

According to (Ulvi et al., 2022) reported that mental health influences almost every part of our life, it has a big impact on the way we think, feel, and react, and even how we make decisions, it is emotional, psychological, and social well-being. Social media overuse has many negative results, such as, emotional exhaustion that could result into depression, sleeping issues, low self-esteem, and many other problems. The majority of prior research has supported these outcomes among Facebook users, while other social media platforms, like Instagram, have not received as much attention, for example a study by (Hattingh et al., 2022) on Instagram users, found that technology overuse could lead to many negative outcomes, such as fatigue.

Many researchers have highlighted the negative consequences of compulsive social media use, according to (Lin et al., 2013) found that internet compulsive use has a strong relation with fatigue in adolescents. However, (Ho et al., 2014) found that obsessive internet use has a strong correlation with mental suffering like depression, anxiety, and attention deficit hyperactivity disorder (ADHD). Internet use disorder results into a negative cognitive response that will influence mental health and decision-making process (Brand et al., 2016). Similarly, (Kaur et al., 2021) found that excessive social media use has bad consequences on individual well-being, for instance, it causes fear of missing out (FoMO), sleeping problems due to social media use, having negative feelings, such as jealousy, depression, and even fatigue.

Prior research has linked people who experienced FoMO with Fatigue and depression, they are more likely to spend time on social media to avoid missing out any event or activity of other people. (Przybylski et al., 2013) discussed that FoMO may contribute to low mood or depressive symptoms. (Baker et al., 2016) reported that people who are high in FoMO need to be constantly connected with others and that may have negative results on mental and physical health. In another study proposed by (Wortham, 2011) Fear of missing out (FoMO) and social media use might be connected to a general lack of happens. Table 1 offers a brief overview of previous studies related to SMO, FoMO, and SMF.

**Table 1.** Literature review of social media overuse, FoMO, and fatigue

<b>Source</b>	<b>Main findings</b>
(Oberst et al., 2017)	Heavy Social media use is positively linked with psychological and social problems, it's also linked with mental health issues, such as depression, and anxiety.
(Malik et al., 2020)	FoMO and excessive use of social media have a positive relation with social media fatigue, and tension induced by most of the popular social media networks.
(Bright et al., 2015)	The concept idea behind social media fatigue is that when users feels overloaded by too much information and communication from social media.
(Talwar et al., 2019)	Social media fatigue is a subjective experience resulting from constant use of social media, it consists of unpleasant emotions, such as low mood, emotional exhaustion, and frustration. Fatigue users have the intention to take a break from using social media, due to the negative emotions from social media .
(Logan et al., 2018)	Humans' ability to process information is restricted and limited and when this information will surpass human ability, it will lead to fatigue and low performance, according to a research in organizational psychology and science.

Over the past years with the rapid development of information technology, many problems have emerged related to the relationship between social media use and mental health issues. Prior research has suggested that online social media and internet use has a positive relationship with depression and low self-esteem (Banjanin et al., 2015). Depression is a major risk factor for a high cardiovascular illness, and also has a big impact on the incidence of suicide. A study conducted on adolescents by (Pantic et al., 2012) reported that there is a positive relationship between social networking and depression. Depression symptoms are when someone loses interest and pleasure feelings, constantly feeling guilty, and angry. Many research has defined depression, according to (Dhir et al., 2018) depression is when emotions and pleasurable feeling is either vanished or disappeared. Fatigue is associated with the usage of social media its induced when someone feels overwhelmed by the huge amount of information and communication that will consume energy and time, and it will lead to fatigue (Ravindran et al., 2014).

Prior research has defined the term of self-esteem, it's the evaluation elements of the self, and it contributes significantly to the improvement and maintenance of mental health and overall quality of life. It's the extent to which one prizes, approves, values, or likes oneself according to (Pantic, 2014). Few empirical studies discussed that low self-esteem and low confidence could be a result of social media fatigue, for instance, (Fan et al., 2020) found that low self-esteem and exhaustion emotions are significantly caused by social media fatigue. In Another study according to (Sunil et al., 2022) social media fatigue and social comparison will lead to low self-confidence and low self-esteem.

Social media fatigue could also lead to sleeping problems. Restful sleep is very important for better physiological and mental health. However, not having a good sleep will affect our productivity and performance. Previous research has start investigation the relationship between social media and poor sleeping with the negative impact on youth mental health. This phenomenon has grabbed scholars' attention. Many studies have reported the association between the overuse of social media and sleeping issues. However, some research discussed the relation between social media use (Facebook) and sleeping disorders. According to (Xu, 2015) a study among chines students found that there is a relation between social media use and poor sleep quality with experiencing unpleasant emotions and fatigue. Similarly, according to (Alonzo et al., 2021) reported a significant correlation between the overuse of social media with poor mental health.

(Tandon et al., 2020) discussed that some social media platforms provide users with some features so they can set an alert for a specific notification, especially during the night and this service will lead to fatigue and will affect the sleeping duration, resulting into low sleep quality. Previous studies discussed the role of gender differences in Depression, Low self-esteem, and sleeping problems, where these factors could have a big role among social media users. For instance, (Barker, 2009) found that females tend to use social media more than males. However, the percentage of having lower self-esteem in females is more compared to males. In another study on Chines students according to (Hou et al., 2020) reported that females are more likely to experience psychological issues than males. However, the finding shows that females experience depression and stress symptoms more than males who have greater stress resistance. Table 2 offers a brief overview of previous studies related to depression, low self-esteem, and sleeping problems.

**Table 2.** Literature review of Depression, Low self-esteem and sleeping problems

<b>Source</b>	<b>Main findings</b>
(Nesi et al., 2021)	The increased use of digital devices, especially for social media and internet browsing during the day and before bedtime, is linked with difficulties falling asleep and, shorter sleep time.
(Adams et al., 2017)	The study reported that students frequently woke up during the time to fall asleep to respond to text messages or phone calls, which resulted to have poor sleep quality.
(Gezgin et al., 2017)	Stated that sleep issues may be caused by self-imposed bedtimes and a desire to stay awake to interact with SM.
(Shensa et al., 2017)	In a study among Facebook users, the study confirmed the relationship between Facebook addiction and depression among both high school and college students.
(Luo et al., 2021)	Using social media excessively has been associated with a range of negative outcomes, including anxiety, depression, self-harm, suicidal thoughts and behavior, low self-esteem, low academic performance, and a poor school connection.

### 3. RESEARCH MODELS AND HYPOTHESIS

Figure 1 illustrates this study model, as social media overuse and FoMO are independent variables, with social media fatigue that mediates the relation between SMO and FoMO, and the following outcomes, depression, low self-esteem, and sleeping problems. Also, gender difference plays the moderator role between SMF and the outcomes.

The mediation variable social media fatigue was identified as a type of psychological fatigue according to (Zhu & Bao, 2018) subjective, sad feeling or tiredness that has multi-dimensional. Social media fatigue refers to the feeling of exhaustion, boredom, or frustration that can result from excessive use of social media, it's a form of digital burnout that can occur when we spend too much time on social media platforms.

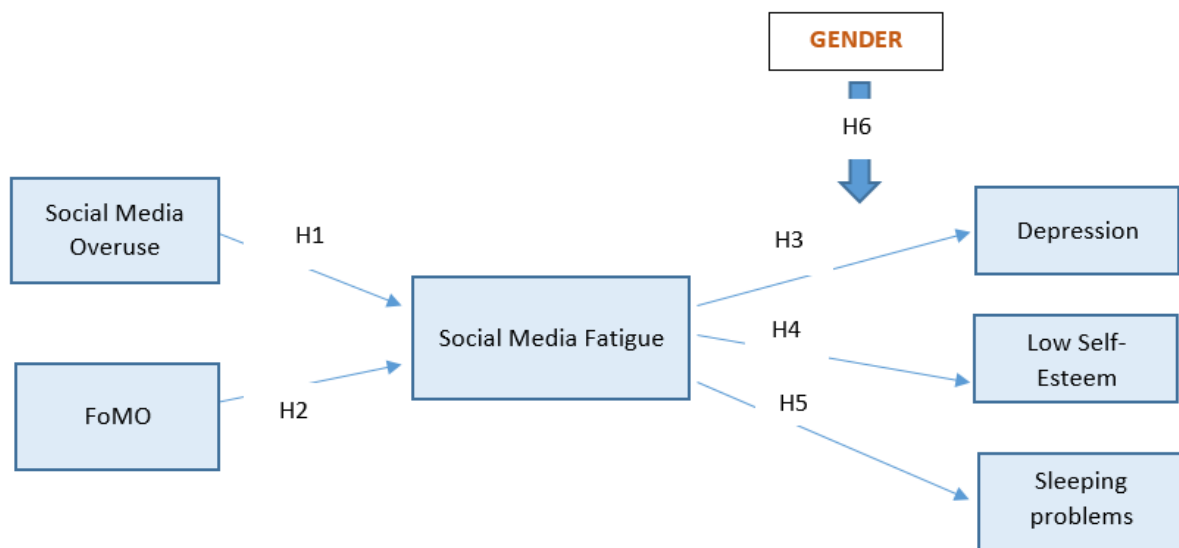


Figure 1 Research model

### **H1: Social Media Overuse is Positively Associated with Social Media Fatigue**

Compulsive use behavior refers to unplanned, uncontrollable behavior and effective interactions with technology, it can also be classified under addiction behavior (Clements & Boyle, 2018). Compulsive use is linked with many mental issues such as addiction, negative feelings, or emotional exhaustion. Few studies linked fatigue feelings with social media use for instance (Tandon, Dhir, Talwar, et al., 2021) in this study reported that social media overuse will result in many negative consequences that will affect psychological health, such as fatigue and depression.

Spending too much time scrolling through social media feeds, checking notifications, and reading updates can be mentally and emotionally exhausting. This can lead to burnout, stress, fatigue, and other negative feelings, which can in turn affect our overall well-being. Excessive use of social media is linked with reduced productivity and poor academic performance according to (Wolniewicz et al., 2018).

### **H2: FoMO is positively associated with Social Media Fatigue**

Fear of missing out (FoMO) has been linked in many studies to the excessive use of social media platforms, but only a few researchers who investigate the relation between FoMO and social media fatigue, for instance (Hattingh et al., 2022) have acknowledged that FoMO is the root behind the huge engagement in social media which is later will result into anxiety and fatigue. However, according to (Tandon, Dhir, Almugren, et al., 2021) they indicated that FoMO is the main element of people experiencing the negative aspect of social media phenomena, such as fatigue.

(Milyavskaya et al., 2018) suggested in his study among college students that experiencing FoMO will be immediate negative emotions and self-control effects. However, experiencing frequent FoMO has been linked to increased stress and bad emotions over time. Following FoMO studies (Elhai et al., 2016) found that The need to be connected with social media to not miss any event or activities of other will lead to depression, anxiety, and physical symptoms.

### **H3: Social Media Fatigue is positively associated with Depression**

Social media fatigue is a subjective measure of a person's level of weariness, drain, or burnout from using social media (Hattingh et al., 2022). There is a lot of evidence suggesting that social media fatigue can be related to depression and low mood. Spending an excessive amount of time on social media can also lead to feelings of isolation, boredom, and a lack of fulfillment in real life- relation and activities. (Lee et al., 2016) who associate social media fatigue with diminished interest and exhaustion, due to the fact of information overload, some users tend to reduce or stop using social media platforms.

Social media has become a major source of information and news for many people, and the constant stream of updates and notification can be overwhelming which is later lead to fatigue and exhaustion. Prior research indicated that information overload is the main factor that contributes to a negative results from using social media (Ahuja et al., 2007).

#### **H4: Social Media Fatigue is positively associated with Low Self-Esteem**

Few research studies have investigated the relationship between social media fatigue and self-esteem. Social media can create unrealistic expectations and ideals that can be difficult for individuals to meet or match leading to feelings of disappointment and frustration. According to (Cramer et al., 2016) found that social media fatigue (Facebook fatigue) is the idea that social comparison and self-esteem may combine to reduce users' intention of using Facebook.

Low self-esteem is a feeling of inadequacy or inferiority in relation to others, this can be caused by a variety of factors, including social media use. According to (Cingel et al., 2022) discussed that social media general use has a positive relation with lower self-esteem, across two studies found that social media use (Facebook) was linked in social comparison and lower self-esteem.

Much evidence points to the positive factor when users receive good responses regarding a virtual post on social media, and that has a positive relation with self-esteem (Burrow & Rainone, 2017).

Low self-esteem can be exacerbated by social media use, as people are often exposed to an idealized version of other people's lives and can feel like they don't measure up. Additionally, social media algorithms are designed to keep users engaged for as long as possible, which can lead to an endless cycle of comparing oneself to others and feeling inadequate.

#### **H5: Social Media Fatigue is positively associated with Sleeping Problems**

Social media can have a negative impact on sleeping quality, which is an important factor in overall well-being. Spending time on social media before bed can stimulate the brain and make it harder to fall asleep. In addition, the constant need to check notifications, updates, and engage in online conversations can lead to anxiety. A conclusion according to (Alonzo et al., 2019) found that low sleep quality occurs in young people who are excessively active users of social media platforms.

Spending long hours on social media and other digital devices can lead to fatigue and exhaustion, further reducing the amount of sleep that people get, the stimulation provided by social media can keep the brain active and make it harder to relax before bed (An et al., 2014) has linked sleeping disturbance with social media use.

Social media overuse has been associated with short sleep duration in many studies, for instance (Do et al., 2013) found that internet overuse is a significant risk factor on mental health of individuals, it gives a huge impact of poor sleep duration on individual health. Another study by (Carter et al., 2016) he discussed a study by meta-analysis, discovered that the utilization of digital devices by young individuals during night time, which frequently involves accessing social media, is linked to a decline in sleeping quality, a decrease in the amount of sleep, and increased drowsiness during the day.

#### **H6: Social Media Fatigue will strongly lead to Depression, Low Self-esteem and Sleeping Problems in the presence of Gender Differences**

#### **MODERATING FACTOR GENDER DIFFERENCES.**

Research suggested that gender differences may play a big role in the relationship between social media fatigue and depression. It's very important to understand that gender differences lead to many different outcomes related to physical and mental health. Studies have shown that women tend to use social media more frequently and for a longer time compared to men, in order to communicate and obtain information (Weiser, 2000). Therefore, women are more likely to experience negative

consequences from social media, such as, body dissatisfaction, reduced self-esteem, increased anxiety, and depression. (Cunningham et al., 2021) found that Depression is more common among women, with the rate being at least two times higher than in men. Another study by (Kong et al., 2022) reported that females are more likely to have issues related to social media use, for instance, social media have adverse effects on females' mental health, such as (increased depression and reduced self-esteem), while it is considered a positive leisure activity for males.

It's important to note the relationship between social media use, fatigue, and self-esteem, for example, a study by (Twenge & Farley, 2021) found that the use of social media is associated with mental health issues and this association is more significant for females than males. Some of these gender differences were found to be statistically significant, for instance, a higher percentage of girls (88%) reported lower self-esteem compared to boys (35%).

Sleep disturbance in youth is a significant health issue that deserves attention from public health. Studies have suggested that women are more likely to experience sleeping issues related to social media use, such as, difficulty falling asleep, and attention difficulties. In a study according to (De Doncker & McLean, 2022) men are less likely to experience sleep difficulties related to social media use compared to women. (Chang & Choi, 2016) A study was conducted among Korean university students to study the factor of sleeping quality between females and males, the study suggested that young women experience poor sleep quality compared to young men.

## 4. METHODOLOGY

### 4.1. MEASUREMENT

Most of the survey questions we used were adopted from the scales that have been already tested and verified in previous studies, we used a seven-point Likert scale from “strongly agree” to “strongly disagree” (see Appendix A). The scale items for social media overuse were adopted from (Andreassen et al., 2012) who studied social media addiction. The items to measure fear of missing out (FoMO) was adopted from (Przybylski et al., 2013). Social media fatigue items were adopted from (Dhir et al., 2018) who studied the consequence of fatigue related to social media use. Depression items were adopted from (Bright et al., 2015) who studied depression resulting from social media fatigue. The items for Low self-esteem were adopted from (Ciarrochi & Bilich, 2006). Finally, the items to measure sleeping problems were adopted from (Tandon et al., 2020) who studied sleeping issues due to social media use.

### 4.2. SAMPLE AND PROCEDURE

To test the proposed models, 406 responses were collected by an online survey using (Qualtrics website) the survey started from (30/ July to 24/August). The data were collected in Damascus, Syria among college students. The majority were females with 280 and 126 male respondents. The sample was Instagram users only since it’s the most popular application in Arab countries, especially among adolescents and youth. Tables 3 and 4 show the details about the respondents ‘age, gender, and social media overuse.

**Table 3.** Demographics

<i>Measure</i>	<i>Item</i>	<i>Count</i>	<i>%</i>
<i>Gender</i>	<i>Male</i>	126	31
	<i>Female</i>	280	69
<i>Age</i>	18	19	4.7
	19	9	2.2
	20	11	2.7
	21	13	3.2
	22	26	6.4
	23	31	7.6
	older than 24	297	73.2

**Table 4 .** Social media overuse

<i>Spent a lot of time</i>	<i>Frequency</i>	<i>Percent</i>
<i>Strongly agree</i>	43	10.6
<i>Agree</i>	73	18.0
<i>slightly agree</i>	67	16.5
<i>Neutral</i>	54	13.3
<i>Disagree</i>	91	22.4

<i>slightly disagree</i>	17	4.2
<i>strongly disagree</i>	61	15.0

### 4.3. DATA ANALYSIS

The current study involves a multivariate analysis, where statistical techniques are used to examine multiple variables simultaneously (Leguina, 2015).

In this study, the statistical technique used to evaluate the results obtained from the questionnaire is Partial Least Squares (PLS-SEM), which is one of the various statistical methods related to multivariate analysis.

Previous studies have extensively utilized the PLS-SEM technique due to its ability to provide a superior explanation of intricate relationships, irrespective of the number of constructs, indicators, or relationships in the model (Hair et al., 2019). We used IBM SPSS 24 for data analysis.

### 4.4. MEASUREMENT MODEL

(Hair et al., 2006) evaluated the quality of the measurement model using various criteria such as internal consistency, convergent and discriminant validity, and construct reliability. Internal consistency, or the scale's reliability was determined using measures such as, Cronbach's alpha, and composite reliability.

To assess the reliability and consistency of reflective constructs, certain conditions need to be fulfilled. The evaluation of internal consistency is done through measures such as Cronbach's Alpha and Composite Reliability. For these measures, all construct values should be above 0.6 (Bagozzi & Yi, 1988).

The square roots of AVE values are compared to the inter-construct correlations as outlined by (Fornell & Larcker, 1981). Table 5 shows that both of these criteria are met, and indicated that the model's reliability is good, with the exception of low self-esteem.

**Table 5.** Quality assessment

Construct	Item	Mean	Std	Cronbach's alpha	Composite reliability
<i>SMO</i>	Over_Use_SMQ1	3.9360	1.68679	0.816	0.903
	Over_Use_SMQ2	3.7291	1.71572		
	Over_Use_Q3	3.9163	1.89291		
	Over_Use_Q4	4.4631	1.74762		
<i>FoMO</i>	FoMO_Q1	3.4877	1.85488	0.865	0.93
	FoMO_Q2	3.7586	1.82868		
	FoMO_Q3	3.7980	1.93310		
<i>DEP</i>	Depression_Q1	3.9778	1.90438	0.894	0.945
	Depression_Q2	4.5665	1.77061		
	Depression_Q3	4.6108	1.86224		

	Depression_Q4	4.7340	1.78005		
<i>LSE</i>	Low Self-EsteemQ1	3.8498	1.36792	0.28	0.529
	Low Self-EsteemQ2	4.5419	1.81270		
	Low Self-EsteemQ3	4.5911	1.84466		
	Low Self-EsteemQ4	2.7488	1.48105		
<i>SP</i>	Sleeping ProblemQ1	4.6749	1.48331	0.752	0.867
	Sleeping ProblemQ2	3.8350	1.59470		
<i>SMF</i>	Social_media_fatigueQ1	3.6773	1.56038	0.828	0.909
	Social_media_fatigueQ2	3.5721	1.30996		
	Social_media_fatigueQ3	4.0660	1.58053		

All VIF values that were obtained from a comprehensive collinearity test were inspected in order to confirm whether bias had an impact on the research data. The model is considered as being free of technique bias because all values were lower than 3, as indicated in table 6.

**Table 5. Collinearity test**

Collinearity Statistics	
Tolerance	VIF
.729	1.372
.729	1.372

a. Dependent Variable: SMF

**Table 6. Correlation matrix**

		SMO	FoMO	Dep	LSE	SP	SMF
SMO	Pearson Correlation	1					
	Sig. (2-tailed)						
FoMO	Pearson Correlation	.521**	1				
	Sig. (2-tailed)	.000					
Dep	Pearson Correlation	.483**	.680**	1			
	Sig. (2-tailed)	.000	.000				
LSE	Pearson Correlation	.444**	.469**	.520**	1		
	Sig. (2-tailed)	.000	.000	.000			
SP	Pearson Correlation	.602**	.374**	.447**	.373**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
SMF	Pearson Correlation	.575**	.395**	.425**	.444**	.545**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed)

b. Listwise N=406

## 4.5. STRUCTURAL MODEL

The analysis of the structure model either supports or rejects the hypothesized effects of the research model by examining whether the path coefficients are statistically significant. The beta values ( $\beta$ ) indicate how strong the relationship is between the independent and dependent variables.

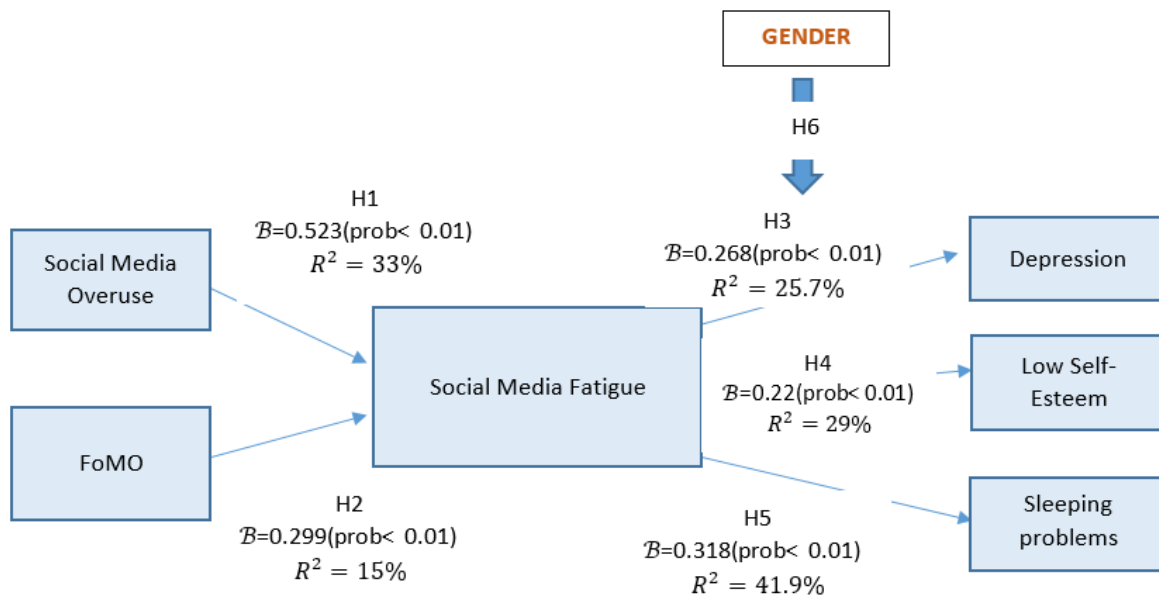


Figure 2 Research model evaluation

Table 8. presents the indirect effects among variables. Social media fatigue showed that all indirect effects between social media overuse, FoMO on the one hand and depression, low self-esteem, and sleeping problems on the other hand, are statistically significant except for the relationship between FoMO and sleeping problems.

**Table 7. Indirect effects**

Constructs	B	p-values
SMO→ SMF→DEP	0.119**	0.025
FoMO→ SMF→ DEP	0.546***	0.000
SMO→ SMF→ LSE	0.10***	0.006
FoMO→ SMF→ LSE	0.164***	0.000
SMO→ SMF→SP	0.401***	0.000
FoMO→ SMF→SP	0.037	0.315

Note: \*, \*\*, \*\*\*significant impact at 10%, 5%, 1% respectively

In table 9 the results have shown that gender differences modify the impact of social media fatigue on both variables, depression and low self-esteem at 10% and 1% levels of significant respectively, but it didn't modify the impact of social media fatigue on sleeping problems.

**Table 8. moderating effect of Gender on the relationship between SMF and outcomes**

Gender	B	p-values	R <sup>2</sup>
SMF→DEP	-0.212*	0.082	18.8%
SMF→ LSE	-0.198***	0.004	21%
SMF→SP	0.055	0.576	29.7%

Note: \*, \*\*, \*\*\*significant impact at 10%, 5%, 1% respectively

## 5. RESULTS AND DISCUSSION

The relationship between psychological well-being and the social media fatigue wasn't clear, and many factors are still waiting for the researchers to examine. The prior default presents the major motif for this study to reveal more facts in psychological field. Our results show that both of social media overuse and FoMO represent significant predictors for social media fatigue (H1:  $\beta=0.523$ ,  $p\text{-value}<0.01$ ; H2:  $\beta=0.299$ ,  $p\text{-value}<0.01$ ). A closer view of the numbers explains that the impact of social media overuse is greater than the impact of FoMO, where  $R^2=33\%$  of the variable SMO and 15% for FoMO, social media overuse explained 0.33 of the changes in social media fatigue, while FoMO explained 0.15 of the changes in social media fatigue. SMO and FoMO results into social media fatigue among Instagram users. (H1, H2) is supported and this is consistent with previous research (Malik et al., 2020).

For (H3, H4, H5) the results support the positive impact of social media fatigue on depression, low self-esteem and sleeping problems (H3:  $\beta=0.268$ ,  $p\text{-value}<0.01$ , H4:  $\beta=0.22$ ,  $p\text{-value}<0.01$ , H5:  $\beta=0.318$ ,  $p\text{-value}<0.01$ ). In the same context, the research results reveal that social media fatigue explained 26%, 29% of the variability observed in depression and low self-esteem respectively, while the explanatory power of the model to measure the impact of the SMF on SP reached 42%. These results highlighted the critical impact of SMF on SP, especially among youth (the sample of the study) which fall in with the previous studies (Nesi et al., 2021). We may explain the prior results in the light of social media overuse and FoMO where social media fatigue mediates the relationship between both (Social media overuse and FoMO) and SP. On the other hand, the research attributes a high percentage of  $R^2$  due to the conditions in Syria where Syrian people are suffering from the economical situations that direct people especially youth to find salvation in social media, this social orientation leads to more sleeping problems, depression and low self-esteem. Given the results of the previous literature as well as those of the current research, we can say that social media fatigue plays a mediation role between (SMO, FoMO) and (DEP, LSE, and SP).

H6 examined whether social media fatigue will strongly lead to depression, low self-esteem, and sleeping problems in the presence of gender differences. The results have shown that gender modified the relation of social media fatigue on both variables, depression, and low self-esteem for  $p\text{-value}<0.1$  and  $P\text{-value}<0.01$  respectively, and this is consistent with (Cunningham et al., 2021). However, the percentage of females who experience depression and low self-esteem is higher compared to men. But on the other hand, gender didn't modify the impact of social media fatigue on Sleeping problems, and this result is not consistent with the previous literature (De Doncker & McLean, 2022).

The researcher explained these findings due to the following points:

- The unequal size of gender groups, where male represents 31% while female 69%.
- The fluctuating conditions in Syria, which reflected negatively on the psychological side for both gender makes it difficult to determine the moderation role for gender.

## **5.1. THEORETICAL IMPLICATIONS**

The results of this study have various implications on both theoretical and practical sides. First, the previous studies have not explored fatigue due to social media overuse on psychological well- among youth Instagram users. Therefore, this study could be the initial empirical research that has investigated these aspects.

Second, low self-esteem wasn't examining before with the relation of social media fatigue. Also, considering gender differences as a moderator factor between social media fatigue and the outcomes can be a valuable contribution for the future research.

## **5.2. PRACTICAL IMPLICATIONS**

In terms of practical implications, the results of this study have important implications for social media users, the study highlights the negative impact of social media overuse and FoMO on psychological well-being. Therefore, it is important to educate individuals, especially young students about the potential negative consequences of excessive social media use and the pressure to constantly stay connected and engaged. However, they should limit their time spent on social media and try to take a break by creating alternative forms of social interaction, such as in-person socializing, playing sport, and creating some activities with other people in the real life.

Second, social media overuse could lead to a negative self-image and low self-esteem. It is important to promote a positive self-image among youth by encouraging self-care, self-compassion, and positive self-talk.

In summary, social media fatigue has many negative results on psychological and mental health. Therefore, it is important to take steps to reduce these effects, by raising awareness, limiting screen time, seeking support, encouraging healthy behaviors, and promoting positive self-image are some practical steps that can help improve mental health.

## 6. CONCLUSIONS

Social media platforms are famous websites that can provide users with many positive outcomes, such as, entertainment interactions, Educational and business opportunities. On the other hand, excessive use can lead to many negative consequences on human psychological and mental health. In this study, we investigated the impact of social media overuse on youth psychological well-being. The results indicated that social media overuse and FoMO will lead to emotional exhaustion, and fatigue, due to many information and communication that users are exposed that can exceed the human ability to handle. However, the results show that social media fatigue will lead to depression, low self-esteem, and sleeping problems and these outcomes will affect human mental and psychological health.

The findings provide a more comprehensive understanding of social media overuse and its consequences, which can be beneficial for the future research.

Further research is needed to have a fully understanding of the scope and nature of this relationship and to identify potential interventions that can mitigate the adverse effects of social media on psychological well-being.

## **7. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE WORKS**

This research provides significant value to the theoretical understanding and practical application of the subject matter. However, there are some important limitations that should be considered. First, the data was collected from college students in Damascus, Syria, this means that the results may not be generalizable to other populations, such as individuals of different ages, cultures, or even different backgrounds and levels of education. Moreover, the study focused only on three psychological issues (depression, low self-esteem, and sleeping problems) and did not consider other possible outcomes or factors that may be resulting from social media overuse on Physiological well-being such as cyberbullying or neglected of real-life relationships.

Second, the study sample was focused on Instagram users only, it is necessary to confirm the findings of the current research within the scope of other social media platforms, such as, TikTok, Snapchat and YouTube. However, for the future study we can conduct another research to compare the effect on these variables among people who produce social media content, such as (bloggers, influencers and social media managers) and people who only consume social media content.

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## APPENDIX

<b>Variable</b>	<b>Item</b>	<b>Measurement</b>	<b>Source</b>
<b>Social media overuse</b>	1 SMO	I spent a lot of time thinking about Instagram?	
	2 SMO	I feel an urge to use Instagram more and more.	
	3 SMO	I use Instagram in order to forget about personal problems.	
	4 SMO	I become restless or troubled if you have been prohibited from using Instagram.	
<b>Fear of Missing Out (FoMO)</b>	1 FoMO	After using Instagram, I fear others have more rewarding experiences than me.	
	2 FoMO	After using Instagram, I fear my friends have more rewarding experiences than me?	
	3 FoMO	After using Instagram, I get worried when I find out my friends are having fun without me.	
<b>Depression</b>	1 DP	After using Instagram, I have felt lonely.	

	2 DP	After using Instagram, I did not enjoy my life.	
	3 DP	After using Instagram, I have felt myself unworthy.	
	4 DP	After using Instagram, I have felt all the joy had disappeared from my life.	
<b>Self - Esteem</b>	1 SE	After using Instagram, I take a positive attitude toward myself.	
	2 SE	After using Instagram, I wish I could have more respect for myself.	
	3 SE	After using Instagram, at times I think I am no good at all.	
	4 SE	On the whole, I am satisfied with myself.	
<b>Sleeping problems</b>	1 SP	How often is your sleep disturbed due to Instagram notifications.	For this variable we used a five-point scale being from to "Always" to "Never"
	2 SP	How often is your sleep reduced due to Instagram use before sleeping.	

<b>Social Media Fatigue</b>	1 SMF	I am likely to receive too much information when I am searching on Instagram.	
	2 SMF	I am frequently overwhelmed by amount of information available on Instagram.	
	3 SMF	Amount of information available on Instagram makes me tense & overwhelmed	

*Descriptive Statistics for DEP*

<i>GENDER</i>	Mean	Std. Dev.	Obs.
Females	4.330645	1.586318	280
Males	4.801181	1.557859	126
All	4.477833	1.590617	406

*Descriptive Statistics for LSE*

<i>GENDER</i>	Mean	Std. Dev.	Obs.
Females	3.869176	0.848931	280
Males	4.076772	1.053863	126
All	3.934113	0.921687	406

*Descriptive Statistics for SP*

<i>GENDER</i>	Mean	Std. Dev.	Obs.
Females	4.231183	1.420354	280
Males	4.283465	1.301084	126
All	4.247537	1.382762	406

