

The Relationship between Mindfulness and Facebook Addiction among University students

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Abstract:

This paper aims to examine the relationship between Mindfulness and Facebook Addiction among University students. This article used Brownn & Ryan Mindful Attention Awareness Scale (MAAS). to measure the level of mindfulness among students of the university of M'sila, and Torsheim, Brunborg, & Pallesen Facebook addiction scale to measure the level of addiction of the same sample on Facebook. We used Pearson coefficient to examine the relationships between mindfulness and Facebook addiction. Dependent T-test was used to compare between the means of two groups in order to identify the gender differences.

The results indicate an inverse relationship between mindfulness and Facebook addiction among university students. Pearson's coefficient estimated ($r_p = -0.26$). Additionally, no gender differences were observed in the level of mindfulness or Facebook addiction.

Keywords: Mindfulness; Facebook addiction; University students

1. INTRODUCTION

The recent surge in interest surrounding mindfulness has been remarkable, with a wealth of psychological and medical research shedding light on its significance. Rooted in Eastern meditative traditions, mindfulness, often intertwined with mindfulness meditation, has garnered attention as the essence of Buddhist practice, as elucidated by Kabat-Zinn (2003). Defined as the intentional focus on the present moment, coupled with a non-judgmental awareness of body and mind, mindfulness has been cultivated through various meditation techniques originating from Buddhist spiritual practices (Kabat-Zinn, 1990; Hanh, 1976).

Concurrently, the pervasive rise of internet and social media usage, notably accelerated during the pandemic, has given rise to phenomena such as internet addiction. With over 4.9 billion users worldwide in 2021, internet addiction, characterized by excessive and uncontrollable internet use, has become a pertinent issue (ITU, 2021; Young, 2004). Within this realm, the concept of "Facebook addiction" has emerged, denoting the compulsive use of Facebook with adverse personal consequences (Ryan et al., 2014).

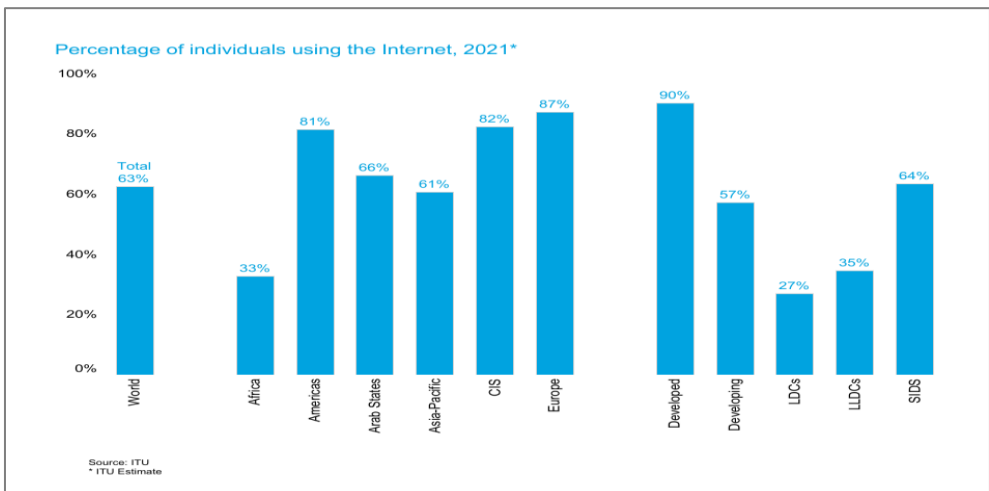


Figure 1. Share of Internet users in 2021 by ITU

Numerous studies have explored the interplay between mindfulness and internet addiction, elucidating its feasibility and impact. Arslan (2017) highlighted lower mindfulness levels in the at-risk group for internet addiction, while Song and Park (2019) underscored the role of mindfulness and self-control in reducing stress and, consequently, internet addiction. Similarly, Lee et al. (2019) found mindfulness to mitigate students' internet addiction, whereas Sriwilai and Charoensukmongkol (2016) observed a negative correlation between social media addiction and mindfulness.

Furthermore, mindfulness has been linked to various outcomes related to technology usage, including smartphone addiction (Cheng et al., 2020), burnout (Charoensukmongkol, 2015), and internet game addiction (Choi et al., 2021). Moreover, research by Arpaci (2021) suggests a decrement in smartphone addiction schemas with increased mindfulness.

These findings collectively underscore the potential of mindfulness interventions in addressing internet and social media addiction, emphasizing its role in promoting mental well-being amidst burgeoning digital landscapes.

2. STUDY QUESTIONS

- What is the nature of the relationship between Facebook addiction and mindfulness?
- Are there any differences in the level of mindfulness between males and females?
- Are there any differences in the level of Facebook addiction between males and females?

3. STUDY HYPOTHESES

As a result of this global research background, and the local spontaneous exploratory observations made by the researcher, we propose the following hypotheses:

Hypothesis 1. There is a strong relationship between Facebook addiction and Mindfulness.

Hypothesis 2. There are no differences in the level of Mindfulness between males and females.

Hypothesis 3. There are no differences in the level of Facebook addiction between males and females.

4. STUDY OBJECTIVES

The objectives of the study are:

- To investigate the relationship between Facebook addiction and mindfulness among university students.
- To determine if there are any differences in the level of mindfulness between male and female university students.
- To determine if there are any differences in the level of Facebook addiction between male and female university students.

5. METHODS

5.1 Participants and Procedures

The participants in this study were ($n = 84$) the registered students in M'sila university in Algeria. The participants comprised 46 female students and 38 male students.

Table 1. *Demographic of participants*

	The Sample	N	%
Faculties	Faculty of Mathematics and Computer Sciences	1	1.4
	Faculty of Technology	6	8.1
	Faculty of natural and life sciences	5	6.8
	Faculty of Economic and Management	12	16.3
	Faculty of Letters and Languages	7	9.5
	Faculty of Humanities and Social Sciences	40	40.3
	faculty of law and political sciences	9	12.2
	Institute of Sciences and Techniques of Physical Activities and Sports	2	2.7
	Institute of Urban Techniques and Management	2	2.7
Gender	Female	46	54.8
	Male	38	45.2
	Total	84	100%

The qualifications we specified were that the participants should be students at the university of M'sila, be of both genders and from all faculties of the university.

5.2 Measures

Mindfulness

We assessed mindfulness using Brownn & Ryan (2003) The Mindful Attention Awareness Scale (MAAS). Participants rated 15 items on a 6-point scale. A sample item is "I could be experiencing some emotion and not be conscious of it until some time later" (1 = almost always; 6 = almost never). Higher scores reflect less mindfulness. Table 2 shows the results of the The Mindful Attention Awareness Scale (MAAS).

Table 2. *Summary Statistics for The Mindful Attention Awareness Scale*

M	53.16
SD	14.28
Cronbach's alpha	0.74

Facebook addiction:

We assessed Facebook addiction using Andreassen, Torsheim, Brunborg, & Pallesen (2012) Facebook addiction scale. Participants rated 6 items on a 5-point Likert-type response options. A sample item is “Spent a lot of time thinking about Facebook or planned use of Facebook?” (1 = Very rarely; 5 = Very often). Higher scores reflect a higher degree of addiction. Table 3 shows the results of the The Facebook addiction scale

Table 3. *Summary Statistics for Facebook Addiction Scale*

M	18.20
SD	4.91
Cronbach's alpha	0.75

5.3 Data Analyses

We performed all statistical analyses using SPSS software version 20 (IBM Corporation, USA). We used Pearson coefficient to examine the relationships between mindfulness and Facebook addiction. Dependent T-test was used to compare between the means of two groups.

6. RESULTS

Table 4 shows negative association between mindfulness and Facebook addiction. Where is the Pearson correlation coefficient (-0.26). This means that a higher level of Mindfulness leads to a decrease in the level of Facebook addiction.

Table 4. *Correlations*

		BFAS	MAAS
BFAS	Pearson Correlation	1	-,267*
	Sig. (2-tailed)		,014
	N	84	84
MAAS	Pearson Correlation	-,267*	1
	Sig. (2-tailed)	,014	
	N	84	84

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5. *Descriptive Statistics*

	N	Range	Min	Max	Mean	Std. Deviation	Variance
BFAS	84	20,00	7,00	27,00	18,20	4,91	24,16
MAAS	84	67,00	22,00	89,00	53,16	14,28	204,09
Valid N (listwise)	84						

We chose the appropriate statistical parameter to verify the hypothesis, and this test was represented by (measures of central tendency). In a simplified reading of the results shown in Table (5), we can infer that the level of Facebook addiction is average through the descriptive results above, where the mean was 18.20. Also in the same table we can notice that the level of Mindfulness is on average, where the mean was 53.16.

Gender differences in the level of mindfulness:

This partial hypothesis was formulated in order to ascertain the significance of the differences in the level of Mindfulness among the students of the university of M'sila due to the gender variable. Assuming that there are differences due to the gender variable; In order to verify this

hypothesis, we followed the following steps: The researcher started from the null hypothesis, which states the following: $H_1: \mu_1 \neq \mu_2$ The researcher then chose the appropriate statistical parameter to verify his hypothesis, and this test was represented in the (Independent Samples T-test). As a later step, after determining the type of coefficients, the researcher used the SPSS program to extract the value of the t-test, and he reached the following result:

Table 6. Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
MAAS	F	46	53.30	14.41	2.12
	M	38	53.00	14.32	2.32

Table 7. Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
MAAS	Equal variances assumed	.196	.659	.097	82	.92
	Equal variances not assumed			.097	79.22	.92

Among the basic hypotheses of the application of T-Test is to determine the homogeneity of the two groups (ie, the equal variance of the two populations from which the two groups are taken) based on the null hypothesis. From table 7 in the column for the levene's test for equality of variances, we note that: $P\text{-value}=0.92>0.05$, and therefore we accept the null hypothesis, that the two groups are homogeneous: therefore, the value of (t) was estimated at 0.09 and through the box (Sig) We define the following: $P\text{-value}=0.65>0.05$

We conclude, at a significance level of 0.05, that the null hypothesis is accepted, indicating no significant gender differences in mindfulness levels. In a simplified reading of the previous results, we can infer the absence of differences through the above descriptive results, where the average results for females reached 53.30 compared to 53 for males in favor of females. Accordingly, and according to what was mentioned previously, we can say that the hypothesis that says (there are no statistically significant differences between females and males in the level of Mindfulness) has been fulfilled.

Gender differences in Facebook Addiction

This partial hypothesis was formulated in order to ascertain the significance of the differences in the level of Facebook Addiction among the students of the university of M'sila due to the gender variable. Assuming that there are differences due to the gender variable; In order to verify this hypothesis, we followed the following steps: The researcher started from the null hypothesis, which states the following: $H_1: \mu_1 \neq \mu_2$ The researcher then chose the appropriate statistical parameter to verify his hypothesis, and this test was represented in the (Independent Samples T-test). As a later step, after determining the type of coefficients, the researcher used the SPSS program to extract the value of the t-test, and he reached the following result:

Table 8. *Group Statistics*

	Gender	N	Mean	Std. Deviation	Std. Error Mean
BFAS	F	46	17.73	5.13	.75
	M	38	18.76	4.64	.75

Table 9. *Independent Samples Test*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
BFAS	Equal variances assumed	.831	.365	-.95	82	.345
	Equal variances not assumed			-.95	81.27	.340

Among the basic hypotheses of the application of T-Test is to determine the homogeneity of the two groups (ie, the equal variance of the two populations from which the two groups are taken) based on the null hypothesis. From table. 9 in the column for the levene's test for equality of variances, we note that: $P\text{-value}=0.34>0.05$, and therefore we accept the null hypothesis, that the two groups are homogeneous: therefore, the value of (t) was estimated at -0.95 and through the box (Sig) We define the following: $P\text{-value}=0.36>0.05$

We conclude, at a significance level of 0.05, that the null hypothesis is

accepted, indicating no significant gender differences in Facebook Addiction levels. In a simplified reading of the previous results, we can infer the absence of differences through the above descriptive results, where the average results for females reached 17.73 compared to 18.76 for males in favor of Males. Accordingly, and according to what was mentioned previously, we can say that the hypothesis that says (there are no statistically significant differences between females and males in the level of Facebook Addiction) has been fulfilled.

7. DISCUSSION

The main objective of this study was to identify the relationship between mindfulness and Facebook addiction among students of the university of M'sila in Algeria. We relied on the theoretical background that dealt with the two variables of the study. we also used the descriptive approach and the Mindful Attention Awareness Scale (MAAS), in addition to the Facebook addiction scale.

The results of our current study revealed that there is an inverse relationship between Mindfulness and Facebook addiction among the study sample. The results also revealed that there were no differences with statistical significance in the level of Mindfulness due to the gender variable. In addition, there were no differences with statistical significance in Facebook according to the gender.

The results of our study came close to the findings of Sriwilai & Charoensukmongkol (2015), where their study found that people who are heavily addicted to social media have low levels of Mindfulness. Our study was also consistent with the findings of Arslan (2017) who found that the group at risk of Internet addiction had a lower level of Mindfulness. Park and Song (2019) discuss the role of mindfulness in developing self-control, which may reduce the risk of Internet addiction, while Bean's study reported no relationship between Facebook use and measures of well-being.

The Cognitive Behavioral Model of Internet addiction defines healthy Internet use as a way of using the Internet for a definite purpose for a period of time that can be considered reasonable given the user's specific circumstances and recognizing the differences between real communication and online communication without taking on a different personality (Davis 2001)

The cognitive-behavioral model of pathological Internet use proposed by Davis (2001) indicates that maladaptive cognition is a major factor leading to Internet addiction among individuals. This is done by influencing individuals' perception and attention, so mindfulness helps individuals perceive the real world more objectively and confront their own emotional experiences, improves individuals' ability to control cognitive ability and metacognitive ability, and reduces their non-adaptive perception of the Internet world, thus reducing addiction students on the Internet (Lan et al, 2018).

Spada et al (2008) investigated metacognitive cognition as a mediator of the relationship between pathological use of the Internet and negative emotions (boredom, depression, and anxiety) in college students who use

the Internet. As a result, the researchers found a positive and significant correlation between pathological internet use and the full five dimensions of the metacognitive questionnaire-MCQ used in the experiment, namely “positive beliefs,” “cognitive confidence,” “uncontrollability and risk,” cognitive awareness,” “the need to control,” and negative emotions. These results support the hypothesis that the relationship between pathological use of the Internet and negative emotions is mediated entirely by Metacognitive cognition. Mindfulness as a metacognitive practice (Kudesia, 2019) through which an individual adjusts his or her information processing method to his or her current situation is made possible by specific beliefs that replace normal beliefs about human information processing. Thus the primary function of mindfulness training is to provide a context for developing these beliefs. What individuals acquire is greater ability in how they respond to situations.

Previous studies have also argued that the reason an individual acquires a non-adaptive perception of the online world is closely related to their impaired sense of meaning in life (Kemp, 2020).

8. CONCLUSION

The recent research endeavor sought to explore the intriguing connection between mindfulness levels and the propensity towards Facebook addiction amongst university students. Notably, this investigation revealed an inverse correlation—as students' mindfulness increased, so did their resistance against excessive social media usage, specifically on Facebook. This finding underscores the potential benefits of cultivating mindful practices within academic settings as a means to mitigate unhealthy digital habits.

Furthermore, the results indicated that neither the degree of mindfulness nor the extent of Facebook addiction differed significantly based upon gender. This suggests that both male and female students may benefit equally from incorporating mindfulness techniques into their daily routines.

The implications of these findings are profound, emphasizing the importance of mindfulness not only for promoting better mental well-being but also for fostering responsible online behavior among college students. As such, the authors recommend expanding the integration of mindfulness training programs beyond traditional classroom environments to encompass various educational contexts, thereby supporting students holistically across diverse domains of life.

By implementing mindfulness interventions, universities can contribute to enhancing student resilience, self-awareness, and emotional regulation skills, which are critical components of maintaining healthy relationships with technology and ultimately improving overall psychological well-being. Moreover, by encouraging mindfulness practices, institutions can foster a more conducive learning environment where students develop essential coping strategies to manage stressors associated with academia and personal development.

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