

The association between social media and anxiety symptoms among the general population in the Kingdom of Bahrain

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ABSTRACT

Background: Social media use has increased in the past few years; it is hardly ever to meet someone who has never been exposed to it. Moreover, individuals vary in their interactions with social media; hence, this may lead to diverse mental health outcomes. **Objective:** In this study, we sought to estimate the prevalence of generalized anxiety disorder (GAD) in the Kingdom of Bahrain, to assess the relationship between social media use and GAD, and to identify the potential risk factors for GAD among the population. **Materials and Methods:** In November and December 2019, a sample of 703 participants aged ≥ 18 years answered an online-based questionnaire that was implemented to gather the needed data. A cross-sectional design was used along with demographic data, GAD 7, and social media scales. Ethical standards were met in this study. **Results:** The prevalence rate of minimal and mild forms of GAD accounts for more than 80% of the study population. Almost 75% of the sample size (73%) were found to use social media more than 6 times/day, and 48% of them felt worried while using different social media platforms. Nearly half of the sample size (44%) agreed that social media use had made them compare themselves with others. **Conclusion:** We concluded that the relationship between social media use and anxiety depends on multiple factors, and it is bidirectional in nature. Further studies are needed to study more aspects of social media use and to establish causality.


KEY WORDS: Anxiety; Bahrain; Mobile Phone; Social Media; Apps; Internet

INTRODUCTION

Anxiety disorders represent one of the leading causes of disabilities.^[1] Globally, an estimated 284 million people experienced an anxiety disorder in 2017, making it the most prevalent mental health or neurodevelopmental disorder.^[2] One of the least studied types of anxiety disorders is generalized anxiety disorder (GAD).^[3] GAD is characterized by excessive anxiety and worries about several

daily life aspects; it is difficult to control and occurring most days for at least 6 months. It is mostly associated with somatic symptoms, including restlessness, fatigue, concentration difficulties, irritability, urinary incontinence, muscle tension, and sleep disturbance.^[4,5] These symptoms lead to clinically significant distress and impairment in functioning through various domains.^[6]

Social media are defined as the online websites and applications which enable users to connect with others.^[1] It seems that regardless of the users' identity or background, social media are part of their lives.^[7] In a study conducted in 2019, it was found that worldwide active social media users are 3.84 billion, which accounts for 45%, meanwhile, in the Kingdom of Bahrain, there are 1.3 million (81%) social media users.^[8]

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Several factors have contributed to increased anxiety symptoms and decreasing the well-being of individuals, such as increased time spent on the sites,^[9] social comparisons, received negative feedback,^[10] posted stressful news, and pressurized feeling of being updated.^[11] Generally speaking, quality of life impairment among GAD and other anxiety disorders such as a social phobia and panic disorders was found to be very similar.^[12] However, on an individual level, GAD has been reported to be a disabling condition, which could bring poorer health-related quality of life, activity impairment, and poorer work performance resulting in disruptions of an individual's life.^[13]

In conclusion, we found that there is a lack of studies done in the Arabian Gulf Countries generally and the Kingdom of Bahrain specifically, which focuses on GAD association with social media use. Hence, that made us ambitious about searching and reaching a new hypothesis regarding this important topic. Therefore, the primary objectives of the current study are to determine the prevalence of GAD among the general population in Bahrain, and to study the association, if any, between the GAD and social media use, and to identify the potential risk factors of GAD among the general population.

MATERIALS AND METHODS

A cross-sectional study including a convenience sample of adults aged ≥ 18 years of both genders from the general population of the Kingdom of Bahrain and excluding individuals with any psychological comorbidities was conducted. Data were collected between November 2019 and December 2019 through an online-based questionnaire using Google Forms. The questionnaire included demographic data (age, gender, nationality, weight, and height), GAD 7 scale, and social media use questions. The social media use questionnaire covered several aspects such as number of social media use during the day, most preferred application, usage before sleeping, number of followers, urge of using the social media, purpose of using, filling of anxiety when using the social media, and receiving negative comments. GAD-7 scale consists of seven items measuring worry and anxiety symptoms. Each item is scored on a four-point Likert scale (0–3) with total scores ranging from 0 to 21 with higher scores reflecting greater anxiety severity. Scores above 10 are considered to be in the clinical range. The GAD-7 scale has shown good reliability and constructs validity.

Ethical approval from the Ministry of Health, Bahrain, was obtained. Consent from the participants was electronically obtained. Participation in the study was voluntary.

SPSS software version 26.0 was used to process and analyze the data collected, $P < 0.05$ was considered as significant.

The data were scored and coded in both Microsoft Excel and Google Sheets, then imported into SPSS for analysis. Descriptive tests were used to describe the data depending on the type of variable.

RESULTS

Table 1 represents the sociodemographic of the study participants. The age of respondents was between the ages of 18 and 65, with a mean of 28.75 years old. Table 2 highlights the numbers and percentages of the participants according to their mobile phone use in multiple variables. Besides, participants are followed by an average of 942 followers (standard deviation = 8424.026) and are following an average of 393 accounts (standard deviation = 691.0).

Furthermore, of the 703 participants, only 229 (32.57%) prefer to share their opinions publicly in social media, while the majority (474) do not. A percentage of 43.67% (307) denied using social media to forget about their social problems, while 43.36% (305) said that they do that sometimes, while the last group admitted that they do that with 12.94% (91). Moreover, 48.08% (338) of the people said that at least once they felt worried due to social media usage, while the majority, which counts for 51.92% (365), did not.

Table 1: Sociodemographics of the study participants

Variable	Category	Count	Percentage
Gender	Females	451	64.14
	Males	252	35.85
Nationality	Bahraini	599	85.21
	Non-Bahraini	104	14.79

Table 2: Mobile phone use

Variable	Category	Count	Percentage
Number of times using social media use	More than 6 times	513	73
	4–6 times	140	19.91
	1–3 times	50	7.11
Number of hours spent using social media	More than 6 h	179	25.46
	4–6 h	263	37.41
	1–3 h	261	37.13
Most used social media application	Instagram	256	36.42
	WhatsApp	227	32.29
	Snapchat	97	13.8
	Twitter	80	11.38
	Others	43	6.11
Preferred content to follow	Comedy	441	62.73
	Science	94	13.37
	Cultural	45	6.4
	Others	123	17.5%
Using social media before sleeping	Reported	598	85.06%
	Denied	105	14.94%

About 44% (310) of the participants answered that social media use made them compare themselves to others, while, on the other hand, 55.9% (393) did not have this feeling. In questioning the study population if they ever received a lot of negative criticism on social media, the highest percent of 44.95% (316) strongly disagreed, while, on the second place, 29.59% (208) disagreed, 21.19% (149) were neutral, 3.56% (25) agreed, and only 0.71% (5) strongly agreed. Furthermore, the results for the question “I feel that I am spied while using social media” were very close as 52.2% (367) disagreed on the statement, and 47.8% (336) agreed. Besides, a percentage of 39.4% (277) has agreed that social media are a part of their everyday activities, while 27.74% (195) strongly agreed. However, 25.46% (179) were neutral, 4.84% (34) disagreed, and the least percentage of 2.56% (18) strongly disagreed.

The majority of the study population were neutral in answering if they feel they are a part of the social media community making the percentage of 35.56% (250), while 26.88% (189) agreed on the statement, 25.32% (178 people) disagreed, 6.83% (48) strongly agreed, and on the opposite hand, 5.41% (38) strongly disagreed.

From the 703 participants, the highest number which was 198 persons (28.17%) have agreed on being sorry if social media apps shut down, and 141 (20.06%) strongly agreed on the same statement. On the other hand, 144 participants (20.48%) disagreed, and 72 (10.24%) of the total number strongly disagreed, while neutral was the choice for 148 (21.05%) candidates, which was the second-highest choice.

The third section of the questionnaire was covering the scale of a GAD to determine how many participants had some or all aspects of the GAD. All the questions were optional and asked about emotional anxiety in the past 2 weeks.

Beginning with a general question on anxiety “have you felt nervous, anxious, or on edge?” From the 629 persons who answer this question, the majority of the 297 (47.22%) felt nervous/anxious/or on edge in several days, while 281 persons (44.67%) never had that feeling and only 51 (8.11%) felt it more than 1 week (half of the time). None of the participants had that feeling daily.

Furthermore, 397 (57.45%) from 691 respondents, the highest number, had felt unable to stop or control worry, but 219 (31.69%) had that feeling for several days, 43 (6.22%) nearly every day, and lastly, 32 (4.63%) felt it more than half of the days.

DISCUSSION

The current research aimed to examine the prevalence of GAD and to find the association between it and social media

use by highlighting the potential risk factors of GAD among the population. This study displayed a prevalence of 17.63% among the population [Table 3]. In addition, a higher number of social media platforms used and more time spent on them yielded greater association with anxiety. Nevertheless, receiving negative criticism and social comparison have also a role to play on the user’s mental health.

The association between social media and GAD was found in a similar study that was done in 2017,^[11] which has important clinical implications.

The present study found a GAD prevalence of 17.63% among the studied population which is relatively similar to that reported in a previous study done in 2006 among primary care attendees in Bahrain (17.3%).^[13] According to a study which was done in 2016 among the Singapore general population,^[14] it was revealed that the lifetime prevalence of GAD marked an elevation to 1.6% from 0.9% throughout 6 years. Taken together, these findings suggest that GAD today is as common as it was years ago, although it has slightly increased. It is still unknown whether this elevation signifies a true role of social media use or it is linked to other factors.

Furthermore, we found that 247 (35.14%) of the 703 participants had a mild form of GAD which was almost the same percentage (34%) as the study that was done in the US.^[9] However, 91 (12.94%) individuals were having moderate GAD and 33 (4.69%) persons were experiencing severe GAD, and both values were less than those found in the same survey,^[9] which were 36% and 30%, respectively.

One of the studies emphasized that the association between social media use and symptoms of depression and anxiety is more related to the number of different social media platforms used rather than the time spent on those platforms,^[9] which was also found in our research as the majority of participants either spend 1–3 h or 4–6 h on social media per day (37.13%) and (37.41%), while the remainders (25.46%) spend more than 6 h per day. On the opposite hand, another study suggested that higher daily use of social media was associated with greater dispositional anxiety symptoms with an increased likelihood of having a probable anxiety disorder.^[11]

One of the questions in our study population was related to receiving negative criticism on social media, the minority of the participants had agreed 3.56% (25) and only 0.71% (5) strongly agreed, mentioning that researches have shown that social media use may directly elicit stress responses, including receiving negative feedback from peers.^[11]

Furthermore, social media use was linked to being a trigger for social comparison with others, such as believing that others are happier and have better lives, which may eventually promote anxiety symptoms.^[11] The same principle was found in our

Table 3: Presents the results of the GAD classification in our participants according to the GAD scale

Variable	Category	Count	Percentage
GAD scale	Minimal form	332	47.23
	Mild form	247	35.14
	Moderate form	91	12.94
	Severe form	33	4.69

GAD: Generalized anxiety disorder

research, in which 44% (310) of the participants believed that social media use made them compare themselves to others.

Moreover, the same study^[11] proved that people may use social media sites to avoid real-world stressors through posting about their problems,^[11] which also was found in this current study as 43.36% (305) said that they do that sometimes and 12.94% (91) admitted it.

There are some limitations to this study since it is an online survey, responses may not reflect the actual behavior. The distribution of the questionnaire synchronized the coronavirus disease-19 pandemic which may disrupt the accuracy of the results.

Even though there was some the limitations, the strengths of this study should be pointed to. Due to the large sample size, the findings can be generalized. There are no enough researches studying the association between social media use and GAD; hence, information from this paper can be used for future comparison.

CONCLUSION

This study set out to determine the relationship between social media use and GAD if any. This research is relevant because many people use social media dramatically, as it is shown in this and many other previous studies. This paper found that social media use may influence individuals depending on their interaction on the various platforms. We concluded that the relationship between the usage of social media and the GAD is bidirectional, we cannot establish causality.

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