

Factorial Structure and Psychometric Properties of the Arabic Mobile Addiction Scale

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Abstract

Mobile phone addiction has become an increasingly concerning topic and has been affected greatly by the rapid change in technology advancement. While symptoms of mobile phone addiction have been defined in previous literature, their manifestation can vary depending on context. As a result, there is a need to develop culturally driven tools that test for mobile phone addiction. This study explores the factorial structure and psychometric properties of the Arabic mobile addiction scale (AMAS), which was developed using an extensive literature review that included studies conducted in an Arabian context. Research data was collected from 404 university students in Palestine and Jordan to test the AMAS factorial structure using confirmatory factor analysis to confirm five factors: salience/preoccupancy, mood modification, tolerance, withdrawal, and conflict/negative consequences. Results showed a statistically significant correlation between the AMAS and Young's (1998) Internet Addiction Test. The AMAS also showed high internal consistency for the total scale and its dimensions.

Keywords: Mobile addiction, university students, mobile addiction scale

البناء العاملي والخصائص السيكومترية لمقياس إدمان الهاتف النقال العربي
ملخص

لقد أصبح إدمان الهاتف المحمول موضوعاً على قدر كبير من الأهمية، والذي تأثر بشكل كبير بالتقدم التكنولوجي، وبالرغم من أن أعراض الإدمان محددة بشكل واضح، إلا أن مظاهر الإدمان تختلف وفقاً للسياق الذي يحدث فيه، لذا فإن هناك حاجة ملحة إلى تطوير أدوات تهدف إلى فحص إدمان الهاتف النقال في بعض السياقات الثقافية. تهدف الدراسة إلى فحص التركيب العاملي والخصائص القياسية لمقياس إدمان الجوال العربي، والذي تم تطويره بعد القيام بمراجعات معمقة للإدب النظري والتطبيقي في هذا المجال. تكونت عينة الدراسة من (404) من الطلبة لفحص البناء العاملي للمقياس، أظهرت نتائج التحليل العاملي التوكيدي أن مقياس إدمان الهاتف النقال ذو بنية عاملية خماسية، وتتمثل هذه العوامل في: الإنشغال بالهاتف، تغير المزاج، الإنسحاب، النواتج السلبية، والتحمل، كما أظهرت النتائج وجود علاقة ارتباطية دالة إحصائياً بين المقياس ومقياس إدمان الإنترنت الذي قامت يونغ (1998) ببنائه وتطويره، وأشارت النتائج أيضاً إلى تمتع المقياس بمستوى مرتفع من الثبات.

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Introduction

Over the span of the last two decades, mobile phones have become a primary tool for human communication (Brown, 2013; Chen and Katz, 2009; Jones et al, 2009; Millermaier and Perez, 2009). Mobile phone has played a role in its increased connectivity and prevalence which leading to the emergence of significant characteristics of mobile phone overuse that are related to personal consequences (Yen et al., 2014). Mobile phone users have had negative health outcomes and many terms have been used to conceptualize and describe unhealthy mobile phone use, such as problematic mobile phone use (Bianchi & Phillips, 2005; Billieux, Linden and Rochat, 2008; Takao, Takahashi and Kitamura, 2009), mobile addiction (Abojedi, 2008; Leung, 2008), and mobile phone dependence (Ezoe, Toda, Yoshimura, Naritomi and Morimoto, 2009). Regardless of terminology, all mutually describe excessive mobile phone usage as a mentality preoccupied with mobile phones, with resulting negative impacts on social, academic and personal dimensions of major daily activities (Orsal et al., 2001).

A review of the non-chemical addiction concept includes a wide range of behavioural addiction forms, such as gambling, video gaming, mobile phones, eating, exercising, working and sex (Vannucci et al., 2016) sharing many symptoms similar to addictions to chemical addiction (Alavi, Ferdosi, Jannatifard, Eslami, Alaghemandan, and Setare, 2012; Hodgins & Stea, 2018; Lesieur and Blume, 1993). Regarding behavioural and non-chemical addiction,

the DSM-5 includes Internet gaming addiction disorder as a second behavioural addiction, alongside gambling disorder. There are nine criteria taken into consideration to diagnose gaming addiction disorder in the DSM-5 (2013)

“(i) preoccupation with Internet games; (ii) withdrawal symptoms when Internet gaming is taken away; (iii) tolerance - the need to spend increasing amounts of time engaged in Internet games; (iv) unsuccessful attempts to control the participation in Internet games; (v) loss of interests in previous hobbies and entertainment as a result of, and with the exception of, Internet games; (vi) continued excessive use of Internet games despite knowledge of psychosocial problems; (vii) deception of family members, therapists, or others regarding the amount of Internet gaming; (viii) use of Internet games to escape or relieve a negative mood; and (ix) jeopardizing or losing a significant relationship, job, or educational or career opportunity because of participation in Internet games ” (pp 795–796).

Griffiths (2005) suggested a component-based model of addiction, comprised of six core elements based on commonalities between different addiction types. The first element refers to salience, when addictive behaviour becomes the major organizer and the focus of life activities that fulfil cravings or pre-occupation. The second element is mood modification, referring to addictive behaviours that either improve mood or decrease negative emotional effects. The

third component, tolerance, refers to a need to increase the frequency, duration, or quantity of engagement in a particular addictive behaviour overtime to reach desirable effects. The fourth component is the emergence of withdrawal symptoms when the addictive behaviour is discontinued, causing unpleasant psychological and physiological experiences. The fifth element is conflict and is presented through either personal or interpersonal dysfunction impacted by the addictive behaviour such as ignoring responsibilities as a result of addiction. Relapse is the last element, and refers to the individual returning to previous levels of addictive behaviour engagement after showing signs of recovery

Symptoms of addiction can be extended to mobile phone addiction, which has been compared to Internet addiction. Therefore, mobile phone addiction is represented with several symptoms identified by previous studies (Bianchi and Phillips, 2005; Walsh et al., 2011). These include; preoccupation with a mobile phone, use of a mobile phone for an increasing amount of time to achieve satisfaction (losing control over use) or repeatedly unsuccessful efforts to control use, irritability when attempting to reduce mobile phone use, losing track of time while using the phone, concealing the extent of involvement with the mobile phone to others, and using the mobile phone as a way to escape from problems or to relieve a dysphonic mood (Swingle, 2016).

Previous studies have explored the validity, reliability and the factors comprised of the instruments used to test mobile phone addiction. Toda et al. (2004) examined the reliability and validity of the Cellular Phone

Dependence Questionnaire (CPDQ) among 168 healthy female university students. The reliability coefficient (Cronbach's alpha) for the CPDQ was 0.86, and six significant factors were extracted. Similarly, Kawasaki et al. (2006) conducted a factor analysis to identify the factorial structure of mobile phone addiction among 358 Thai university students and 380 Thai high school students. Their results detailed five factors of mobile phone addiction scale extracted from university students' sample. Billieux, Linden and Rochat (2008) also developed a Problematic Mobile Phone Use Questionnaire, using a sample of 339 subjects to investigate the questionnaire's factorial structure, revealing three factors of mobile phone addiction (prohibited/dangerous use, dependence, and financial problems). Factorial analysis validity for the Mobile Phone Problem Use Scale was investigated by Leung (2008) with a sample of 402 teenagers aged 14 to 18 years. Factor analysis testing revealed four mobile phone addiction factors (inability to control cravings, feeling anxious and lost, withdrawal/escape and productivity loss) that explained 60.43% of the total variance. An examination of further relevant literature on mobile phone addiction scales revealed other factors, including withdrawal, tolerance, excessive usage, compulsive tendencies, compulsion/persistence (Al-Menayes, 2015; Andreassen et al., 2012; Ceyhan et al., 2007; Ching et al., 2015; Koo, 2009; Kwon et al., 2013; Meerkerk et al., 2009) salience, preoccupation, primacy (Andreassen et al., 2012; Ching et al., 2015; Meerkerk et al., 2009), conflict with others, coping mechanisms, cyberspace-oriented relationships, daily-life disturbances, social benefit/social comfort, pathological use, problematic

use (Andreassen et al., 2012; Ceyhan et al., 2007; Ching et al., 2015; Kwon et al., 2013; Meerkerk et al., 2009; Rutland et al., 2007) and mood modification (Andreassen et al., 2012).

Despite the presence of many international instruments designed to test mobile phone addiction, few mobile addiction scales exist in an Arabic context. Palestinian and Jordanian university student populations are witnessing a dramatic increase of mobile phone usage, which has led to a relatively high percentage (25.7%) of mobile phone addiction, with remarkable behaviours affecting students' academic, social, and psychological lives (Abojedi, 2008). This indicates a clear need to construct a valid and reliable mobile addiction scale when screening and assessing Arabic populations to provide treatment for pathological mobile phone addiction. The scope of this research is to explore the factorial structure and psychometric properties of the Arabic Mobile Addiction Scale (AMAS) by answering the following research questions:

- 1- What is the factorial structure of the AMAS?
- 2- What is the internal consistency of the AMAS?
- 3- To what degree is the AMAS valid?

Methodology

Research Methodology

The current study used a descriptive research methodology, as its focus was to examine the AMAS factorial structure and explore its validity and reliability among university students in Jordan and Palestine.

Sample

The study sample was selected using convenience sampling. The research team distributed study instruments to students across two universities: An-Najah National University in Palestine, and the University of Jordan in Jordan. Questionnaires were distributed to students who had enrolled in general university courses during the first semester of the 2019/2020 academic year. Of the 529 questionnaires distributed, 404 were returned and analysed. Students from An-Najah University accounted for 204 (50.5%) of the participants, and 200 (49.5%) participants studied at the University of Jordan. Participants' gender was unevenly split with 102 (25.2%) participants identifying as female and 302 (74.8%) identifying as male. 251 (62.15%) participants studied humanities and 153 (37.9%) studied sciences. This study was approved by the An-Najah Institutional Review Board before the data was administered.

Research Instruments

The AMAS

This study tool was developed following the five steps developed by Kyriazos and Stalikas (2018). The first step was to determine a conceptual definition of mobile phone addiction after an extensive literature review (Andreassen, Torbjørn, Brunborg, & Pallesen, 2012; Jenaro, Flores, Gómez-Vela, González-Gil, & Caballo, 2007; Koo, 2009; Kwon, et al., 2013). The second step was to construct a pool of questions (45) and list them into subdomains without classifying their content. In the third step, questions were reviewed by a panel of counsellors and

psychology experts from Jordanian and Palestinian universities for content validity. In the fourth step, based on the reviewers' comments, 14 items were removed to prevent redundancy. In the fifth step, a final version of the AMAS comprised of 31 items was produced, representing behaviours, thoughts and feelings related to symptoms of mobile phone addiction. All questionnaire items were rateable on a five-point Likert scale:

very low (1), low (2), moderate (3), high (4) and very high (5). The AMAS was then distributed to a pilot sample of 50 Palestinian and Jordanian university students to verify scale clarity and calculate early indices for item validity and reliability. As presented in Table 1, the item-total correlation ranged from 0.37 to 0.75, confirming that each item contributed to the AMAS total score.

Table 1: Pilot study indices for the AMAS item-total correlation.

Item #	R	Item #	R	Item #	R	Item #	R
1	.45	11	.50	21	.50	31	.74
2	.52	12	.53	22	.53		
3	.75	13	.68	23	.68		
4	.56	14	.57	24	.57		
5	.55	15	.66	25	.66		
6	.38	16	.37	26	.37		
7	.51	17	.68	27	.68		
8	.60	18	.45	28	.45		
9	.48	19	.57	29	.57		
10	.59	20	.50	30	.50		

The Internet Addiction Test (IAT)

The IAT, a 20-item questionnaire created by Kimberly Young (2012), was used to measure the severity of addictive Internet behaviours. Participants responded to statements with a number from 1 to 5 on a Likert scale continuum, indicating the extent to which they engaged in a particular behaviour. The IAT views Internet addiction as an impulse-control disorder, where the term “Internet” refers to all online activity. Mahamid and Berte (2019) validated the scale in an Arabic context by using construct and content validity; the tool resulted in 19 items to test Internet addiction. Cronbach’s alpha coefficients indicated high internal consistency (0.87).

Data Analysis Rationale and Procedure

To investigate the AMAS’s factorial structure, a confirmatory factor analysis (CFA) was conducted to test the factorial

structure of Structural equation modeling (SEM) method using the AMAS program (Arbuckle, 2014). A CFA is a method for testing the measured variables which represent a smaller number of constructs; and is commonly used to confirm item relationships and respective constructs (Netemeyer et al., 2003). CFAs have been used to test relationships between theory and data collected using surveys (Hair et al., 2015) as well as to validate a priori models by testing how well a hypothesized model fits data, using range of fit indices to specify the approximate fit. The Chi-square to DF ratio (χ^2/df) and Comparative Fit Index (CFI; Bentler, 1990) were utilized to estimate overall and incremental model fits of competing models. A significant χ^2 would suggest the data departs significantly from the model and a CFI of less than 0.9 would indicate an

inadequate model fit. We further employed the root mean square approximation (RMSEA; Browne & Cudeck, 1993) to determine the model fit where a RMSEA of 0.05 or below would indicate an acceptable approximate fit. The IAT was used as an external validity criterion.

Findings

Before conducting the CFA, an item-total correlation was calculated using all sample data ($N = 404$), to ensure that all items had strong correlation to the AMAS total score (0.40–0.70). All item correlations were positive and consistent (DeVon et al., 2007). The measurement model also drew on the Griffiths (2005) component model of addiction, excluding one element: relapse, which may be

measured more accurately after an intervention process. The five AMAS model factors were labelled salience/preoccupancy (SP), mood modification (MM), tolerance (TO), withdrawal (WI) and conflict/negative consequences (NC). The initial model assumed the AMAS was multidimensional and comprised of a five-factor structure. The model fitting indicators produced $\chi^2 = 2588.1$, $DF = 63$ and $P \leq 0.001$, indicating the model was not fit. As the model lacked acceptable fit indicators, modified indicators were used to determine whether covariance should be allowed among item errors. Byrne (2016) suggested using a modified index with residuals between two items (± 2.58). In this study, nine covariance relations were created in the five-scale construct, alongside three item errors.

Table 2: Covariances created in the five-scale construct and some item errors.

		Estimate	SE	CR	P
WI	NC	0.84	0.08	9.29	***0.001
MM	WI	0.90	0.08	9.44	***0.001
SP	WI	0.87	0.08	9.13	***0.001
SP	MM	0.91	0.09	9.15	***0.001
SP	NC	0.82	0.08	8.86	***0.001
MM	NC	0.85	0.08	9.18	***0.001
e21	e22	0.27	0.06	5.03	***0.001
e21	e25	0.24	0.05	4.47	***0.001
e6	e7	0.19	0.06	3.29	***0.001

*** P significance ≤ 0.001

Table 2 shows all covariance relations created in the five-scale construct. While the new indicators showed that the model still did not fit the data ($\chi^2 = 700.22$, $DF = 226$, $P \geq 0.01$), a more precise CMIN/DF indicator showed adequate model fit (CMIN/DF = 2.63). Incremental fit indices were also calculated for a stepwise addition of error covariance where a value closest to one indicates the

best model fit. The resulting incremental indices values (CFI = 0.91, GFI = 0.90, NFI = 0.90, RFI = 0.90, IFI = 0.91, and TLI = 0.90) were all ≥ 0.90 , indicating very good model fit. The RMSEA value was 0.057, less than the cut-off value of close to 0.06. Finally, item loading values ranged from 0.50 to 0.75, which were within the acceptable range of high loading values (all > 0.50).

Table 3: Loading values for the items on the five-scale construct.

N	item	Factor	Loading
1	I find myself preoccupied with mobile phone, when I am doing other things, and cause problems for me.	SP	0.71
2	When the mobile phone is out of reach, I become preoccupied with calls that I might receive.	SP	0.58
3	When I receive phone calls, I focus all my attention on the call, and ignore other things.	SP	0.58
4	I find it very difficult to turn off my mobile phone.	SP	0.65
5	I use the mobile phone in order to improve my mood	MM	0.48
6	I use the mobile phone to talk with others, when I feel lonely.	MM	0.60
7	I feel depressed when I can't use the mobile phone, for lack of credit.	MM	0.71
8	I avoid facing the problems, through engaging with the mobile phone.	MM	0.66
9	I feel satisfied with myself, when I received calls and text messages.	MM	0.56
10	I continually check my mobile phone, to make sure it's connected.	WI	0.62
11	I feel nervous and irritable if I turn-off my mobile phone during meetings or studying hours.	WI	0.72
12	I feel lost without my mobile phone.	WI	0.57

13	I feel angry and irritable when I can't answer the incoming calls, or messages.	WI	0.74
14	I feel tense when I can't use my mobile phone for a short period of time.	WI	0.73
15	I feel anxious when my mobile phone is turned-off.	WI	0.73
16	I feel disconnected from other people, if my mobile phone lost or broken	WI	0.69
17	The first thing I always do when I wake-up, is check my mobile phone.	WI	0.56
18	My family and friends complained from my excessive use of the mobile phone	NC	0.74
19	I have physical pain caused by my mobile phone usage.	NC	0.60
20	I often arrive late to appointment, and meetings, because of using my mobile phone.	NC	0.71
21	I got in trouble many times due to my mobile phone ringing during the class or meetings	NC	0.61
22	I have pain and ulcer in my finger due to excessive use (text messaging, or games).	NC	0.66
23	I have ignored some of my family and social responsibilities, because I am preoccupied with my mobile phone.	NC	0.75
24	My social participation has been reduced during the last 12 months, due to excessive mobile use.	NC	0.69
25	My relationship with my friend's disturbance due the excessive use of the mobile phone.	NC	0.73
26	I spend time using the mobile phone more than I have planned.	TO	0.51
27	I hide from others the amount of time I used using the mobile phone.	TO	0.61
28	The time I spend using the mobile phone, has increased during the last 12 months.	TO	0.54
29	I tried to reduce time I spend on mobile phone, but in no vain.	TO	0.57
30	Others told me that I spend a long time using the mobile phone.	TO	0.68

31 I have changed aspects of my ordinary life, to enable me to use my mobile phone freely. TO 0.67

Salience/Preoccupancy SP , Mood Modification MM , Tolerance TO , Withdrawal WI , Conflict/Negative Consequences NC

AMAS intercorrelations were calculated through the correlation between the five-scale construct and the total AMAS score. The results in Table 3 show that all correlation coefficients were significant ($P \leq 0.01$), ranging between 0.85 and 0.89, indicating that all the AMAS constructs contributed highly to the total

score. Criterion validity was found in the correlation between the AMAS five-scale construct and the total IAT score. The results in Table 4 show the correlation coefficients were significant between the IAT total score and AMAS constructs with the correlation range (0.237–0.362), providing evidence of criteria validity.

Table 4: Correlation between AMAS constructs and the IAT

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SP	1	.66*	.69*	.65*	.68*	.85	.30**
		*	*	*	*	**	
MM		1	.70*	.69*	.68*	.85*	.32**
			*	*	*	*	
WI			1	.73*	.71*	.88*	.36**
				*	*	*	
NC				1	.79*	.89*	.23**
					*	*	
TO					1	.88*	.31**
						*	
AM						1.0	.35**
AS							
total							
IAT							1

Cronbach’s alpha and split-half methods were used to test the AMAS scale reliability (see Table 5). The alpha value

range (0.75–0.90) and the split-half range (0.75–0.92) indicated high internal consistency.

Table 5: Reliability coefficient for the AMAS five-scale construct

Factor	Alpha	Split-half	Item numbers
SP	0.73	0.75	4
MM	0.75	0.78	5
TO	0.87	0.89	8
WI	0.88	0.87	9
NC	0.77	0.79	6
AMAS total	0.90	0.92	32

Discussion

This study explored the factorial structure and psychometric properties of the AMAS using a sample of 404 university students from Palestine and Jordan. The resulting CFA showed the measurement model of five factors fit the data after several covariance relations were added. The measurement model factors were consistent with Griffiths (2005). These results confirm that mobile phone addiction possesses main factors that will be discussed below, paralleling what is seen within other types of addiction.

In this study, the first factor is salience/preoccupancy, referring to the mobile phone becoming an individual's primary focus while other activities are ignored. Salience/preoccupancy is a key indicator of the addiction concept, supported by many researchers who have studied mobile phone addiction (Andreassen et al., 2012; Ching et al., 2015; Meerkerk et al., 2009). Mood modification, the second factor confirmed in this study, refers to mood improvement during use or the avoidance of negative emotional consequences through use (Andreassen et al., 2012). Withdrawal, the third factor, refers to emotional symptoms experienced when a mobile phone user tries to reduce their usage (Al-Menayes, 2015; Andreassen et

al., 2012; Ceyhan et al., 2007; Ching et al., 2015; Koo, 2009; Kwon et al., 2013; Meerkerk et al., 2009). The fourth factor, negative consequences, refers to mobile phone usage interfering with the user's social, personal, family, and academic functions (Andreassen et al., 2012; Ceyhan et al., 2007; Ching et al., 2015; Kwon et al., 2013; Meerkerk et al., 2009; Rutland et al., 2007). The final factor confirmed in this study, tolerance, refers to a common increase in the amount and frequency of mobile usage needed to reach satisfying levels overtime (Al-Menayes, 2015; Andreassen et al., 2012). For university students living in political conflict environments, such as Palestine, the situation is more complicated. Palestinian university students living in the occupied territories of Palestine live under difficult circumstances (e.g., militarization, poverty, lack of employment opportunities, cultural pressures, etc.) and fewer positive social outlets due to the restrictions on movement between communities and a lack of recreational facilities (Berte, Mahamid & Affouneh, 2019; Mahamid & berte, 2020; Mahamid & Berte, 2020). Salience/preoccupancy, mood modification, withdrawal, negative consequences and tolerance represent the

main symptoms of mobile addiction, which Palestinian university students may use to escape the real world and engage in different patterns of addictive behaviors.

The current results show that the AMAS factorial structure was consistent with previous studies (Griffiths, 2005; Meerkerk et al., 2009). The results show intercorrelations between the measurement model's five factors and the total AMAS score, providing evidence for internal validity. Additionally, the correlation coefficients were positively significant between the IAT and total AMAS score, proving external criterion validity. The IAT has been proven valid in an Arabic context (Mahamid & Berte, 2018). Using Cronbach's alpha, as an internal measure of consistency, all the AMAS reliability coefficients were shown to be appropriate (Toda et al., 2004).

Limitations and Further Research

This study is not without limitations. One limitation of this study was the inability to evaluate the discriminating properties of the AMAS, as there were no other instruments available in an Arabic context to test convergent validity. Additionally, no clinical diagnosis for mobile phone addiction was available in the forms of addictive behaviors. Accordingly, authors restricted the aims of this research to test factorial structure and psychometric properties of the AMAS.

Due to the limited number of studies focusing on mobile phone addiction, particularly in the Arab context, the current findings may still be of interest to mental health workers and researchers in the field for future studies. Finally, the sample of this research was selected using a convenience recruiting method.

Demographic factors were not fully controlled, potentially limiting the generalizability of the results.

Conclusion

This study examined the factorial structure and psychometric properties of (AMAS), a multidimensional scale designed to measure addiction to mobile phone use. First, the confirmatory factor analysis showed that a Five-factor model fits the data well. Second, concurrent validity analysis showed the AMAS to be a valid measure of mobile phone addiction. Finally, this study showed that the AMAS is a valid and reliable instrument for use when measuring mobile phone addiction in an Arab context. Further research and data should verify the hypothesized model. Evaluating the predictive value of this scale and identifying appropriate cutoff scores for males and females is strongly recommended.

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ملحق رقم (1) مقياس إدمان الهاتف النقال

الرقم	العامل	الفقرة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة قليلة	درجة قليلة جداً
1	الانشغال بالهاتف	أجد نفسي مشغولاً في التفكير بجهاز الهاتف النقال عندما أعمل أشياء أخرى، ويسبب ذلك لي المشاكل.					
2		عندما يكون الهاتف النقال مغلقاً أو خارج التغطية فإنني أنشغل في المكالمات التي من المتوقع أن تصلني.					
3		عندما أستقبل مكالمات عبر الهاتف النقال فإنني أركز كل اهتمامي على المكالمات، وأهمل الأشياء الأخرى التي أعملها.					
4		أجد من الصعوبة أن أغلق هاتفي النقال.					
5	تغير المزاج	أستخدم الهاتف النقال من أجل تحسين مزاجي.					
6		أستخدم الهاتف النقال للحديث مع الآخرين عندما أشعر بالعزلة.					
7		أشعر بالكآبة أو الضيق عندما لا تمكن من التواصل مع الآخرين بالهاتف النقال بسبب عدم وجود رصيد كافي.					
8		أهرب من المشكلات التي تواجهني بالانشغال في استخدام الهاتف النقال					
9		أشعر بالرضا عن ذاتي عندما أتلقى مكالمات أو رسائل نصية من اصدقائي.					
10		أفحص بشكل مستمر هاتفي النقال، للتحقق من كونه غير مغلق.					
11		أشعر بالانزعاج والضيق إذا كان هاتفي النقال مغلقاً خلال قيامي بأعمال، مثل: اجتماعات، ودراسة.					

الرقم	العامل	الفقرة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة قليلة	درجة قليلة جداً
12		أشعر بالضيق بدون هاتفي النقال.					
13		أشعر بالانزعاج او الضيق عندما لا أستطيع الرد على المكالمات او الرسائل النصية التي ترد الي.					
14		اشعر بالتوتر عندما لا اتمكن من استخدام الهاتف النقال لفترة قصيرة من الزمن.					
15		أصاب بالقلق وينشغل بالي عندما يتم اغلاق هاتفي النقال					
16		اشعر بالخوف بالانقطاع عن الآخرين اذا فقدت الهاتف النقال، او تعطل					
17		اول ما اقوم به عندما استيقظ في الصباح هو تفقد الهاتف النقال					
18		النواتج السلبية	يتذمر أفراد أسرتي وأصدقائي من كثرة استعمالي للهاتف النقال.				
19	أشعر بأوجاع وآلام مرتبطة باستخدامي للهاتف النقال.						
20	أتأخر عن مواعيدي؛ بسبب انشغالي في استخدام الهاتف النقال.						
21	تكرر وقوعي في مشكلات؛ بسبب رنين هاتفي النقال في المحاضرات، أو الاجتماعات.						
22	اشعر بالآلام او تقرحات في اصابع يدي من كثرة كتابة الرسائل النصية، او استخدام الالعاب الملحقة بالهاتف النقال.						
23	أهملت واجباتي الأسرية، أو الاجتماعية بسبب الانشغال بالهاتف النقال						

الرقم	العامل	الفقرة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة قليلة	درجة قليلة جداً
24	التحمل	انخفضت مستوى مشاركتي بالواجبات والأنشطة الاجتماعية على مدار الشهر الماضي بسبب استخدام الهاتف النقال					
25		اضطرت علاقاتي مع اصدقائي بسبب الاستخدام الزائد للهاتف النقال					
26		الوقت الذي أقضيه في استخدام الهاتف النقال غير كاف.					
27		أخفي عن الآخرين مقدار الوقت الذي أقضيه في استخدام الهاتف النقال.					
28		الوقت الذي أقضيه في استخدام الهاتف النقال تزايد على مدار الشهر الاثني عشر الماضي.					
29		حاولت أن أقلل من الوقت الذي أقضيه في استخدام الهاتف النقال، إلا أنني فشلت.					
30		أخبرني الآخرون بأنني أقضي وقتاً طويلاً في استخدام الهاتف النقال.					
31		غيرت جزء من نمط حياتي لا تمكن من استخدام الهاتف النقال بحريه أكبر					