

DOI: 10.53555/ks.v12i5.3338

Assessing Nomophobia in Emerging Adults with Urdu Translation of Nomophobia Questionnaire (NMP-Q)

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Abstract

The present study assessed nomophobia in emerging adults using Urdu version of Nomophobia Questionnaire. For that purpose, first the questionnaire was translated in Urdu and validated on the sample (n = 300) that revealing itself standardized tool for the second phase of study. Furthermore, five hundred (n = 500) participants were selected to examine prevalence and gender difference in nomophobia. Statistical evidences proved the translated version of NMP-Q as reliable and valid instrument tool for measuring nomophobia. Descriptive statistics indicated moderate (55%) level of nomophobia amongst all in general and males in particular. Gender wise prevalence estimation revealed females experiencing more severe nomophobia (35.6%), while, the prevalence of mild nomophobia was higher among males (12.4%) as compared to their counterparts. Moreover, a significant gender difference was emerged in respect to giving up convenience ($t = 3.575, p = .001, d = 0.32$), not being able to communicate ($t = 3.736, p = .001, d = 0.33$), and nomophobia ($t = 3.098, p = .002, d = 0.28$) in emerging adults. The current endeavor has shed the lights on dark facet of excessive mobile use embedded with emotional and behavioral difficulties.

Keywords: Nomophobia, Gender difference, Prevalence, Emerging Adults,

Introduction

Mobile use is nowadays considered as a basic amenity of daily life or should say that human survival apparently seems to be in jeopardy if one feels out of being contact with the outer world via mobile. People of the current era prefer to be with their mobile everywhere, even when there is no need to use it. The inclusion of smartphones has revolutionized our lifestyle and paved new avenues for enjoyment and work. Now, people cannot even imagine living without mobile phones. Dependence on mobile devices manifests itself in the form of emotional or behavioral discomfort when one is unable to connect with a significant other or access desired content. In fact, excessive mobile use developed a special phobia that now is referred to as nomophobia. No Mobile Phone Phobia or Nomophobia is basically indicating the fear of being left without a smart phone (Erdem et al., 2017).

Some have defined nomophobia in terms of fear of being unable to utilize the mobile phone services and applications for communicating with others (Gonçalves et al., 2020). It is also deemed a behavioral addiction as it increases anxiety when a person has to be detached from the mobile network owing to different reasons (Setia & Tiwari, 2021), psychological issue that is likely to be developed as a result of excessive smartphone use (Darvishi et al., 2019) or a psychological condition that emanates from the fear of being disconnected from others (Alwafi et al., 2022; Bhattacharya, et al., 2019). Scientists are exploring nomophobia as a psychological condition with the purpose of drawing attention towards its unremitting increase. Scientific literature highlighted a large number of youngsters and students suffering from nomophobia living day and night with mobile devices (Dixit et al., 2010). Significant level of nomophobia among grade 8th students was noted, irrespective of their gender (Colak et al., 2020). Other researchers also described people suffering from nomophobia with non-significant gender difference (Argumosa-Villar et al., 2017; Dixit et al., 2010).

Whereas, a cross-sectional study from Pakistan reported moderate level of nomophobia, with greater prevalence among female students. Nevertheless, daily hours/ time pertaining to usage and checking the phones were related with nomophobia (Schwaiger & Tahir, 2022). College students, too, experienced nomophobia more than working professionals (Setia & Tiwari, 2021) as young people desire acknowledgment from others being linking with the outer world (Humood et al., 2021). Nomophobia and smart phone addiction were significantly allied with each other among young physical therapists in Karachi (Latifi, 2020).

Ratio of nomophobia in university students is rising up, while social interactions related anxiety has been identified as a major predictor of it (Tuco et al., 2023). Kaviani and associated (2020) stated nomophobia having robust association with problematic dependency, prohibited use, and dangerous usage. They further noted relationship of young age and time with problematic mobile use. Young Indian adults (15- 35 years) experienced mild, moderate, and severe symptoms of nomophobia, while majority suffered from moderate problem (Kumar et al., 2021). Other studies have discussed mild to severe ratio of nomophobia in university students, while moderate ratio was commonly emerged (Al-Mamun et al. (2023). First-year students exhibited more problem of nomophobia than those in subsequent years. Nomophobia was significantly connected with the usage of psychoactive substances, daily time spent on smartphones, face book addiction, smartphone addiction, depression and insomnia as well.

Than and Shan (2021) stated moderate to severe level of nomophobia amidst university students undergoing anxiety when they were unable to communicate and have access to information due to the unavailability of mobile phones. Various psychological problems such as loneliness, poor self-control, self-esteem and interpersonal anxiety were affiliated costs of excessive and addictive mobile use that further put detrimental impact on academic achievement of students (Devi & Dutta, 2022).

The problem of nomophobia and dependency on smart phone is ubiquitous issue deteriorating the psychological health of users, conversely, disconnecting the users from real human world as well. People now have keen interest in spending time with their mobile devices rather than with living creatures. This precarious situation is likely to exacerbate our physical, mental, and social health, for this reason, scientific investigations need to delve into nomophobia with the aim of collecting facts so that a strategic plan could be made to grab this problem. In past, researchers proposed using effective strategies to lessen the alarming increase in nomophobia and to ensure its management (Veerapu et al., 2019; Kaur et al., 2021). The current study aligned following objectives to address nomophobia considering it a psychological condition likely to impair psychosocial functioning of emerging adults:

- To translate the Nomophobia Questionnaire (NMP-Q) in Urdu to remove the language barrier while investigating nomophobia
- To estimate the reliability and validity of Urdu version of Nomophobia (NMP-Q)
- To determine the prevalence and gender difference in nomophobia among emerging adults using Urdu version of Nomophobia Questionnaire (NMP-Q)

Methodology

Participants

The current study met two objectives. The first objective of the study was to establish reliability and validity of Urdu version of NMP-Q. In the connection of first objective, three hundred ($n = 300$) participants were recruited. Whilst, for the second objective, total five hundred ($n = 500$) emerging adults (18-29 years) were recruited conveniently from educational institutes of Faisalabad.

Measures

Demographic Information Form

The demographic information form was specifically designed to collect the personal information of all participants, such as age, gender, educational level, position, socio-economic status, family system and number of family members.

Nomophobia Questionnaire

Another key measure chosen for this study was the Nomophobia Questionnaire (Yildirim & Correia, 2015). The questionnaire consisted of 20 items with four subscales: not being able to communicate (6 items), loss of connection (5 items), giving up convenience (5), and not being able to access information (4 items). Each item is scored on a 7-point Likert scale. The original English version has a Cronbach alpha of ($\alpha = 0.95$), with subscale reliability estimates of 0.94, 0.87, 0.74, and 0.90 (Yildirim & Correia, 2015). The Nomophobia Questionnaire has been translated into different languages discussing its cross-cultural application (Jelleli et al., 2023).

Procedure

Phase 1

The first phase of current study was related to the translation and validation of Nomophobia Questionnaire (NMP-Q). Original version was translated by three different experts, Assistant Professors affiliated with university, and then backward translation (from Urdu to English) was done by other three different experts, Associate Professor/Assistant Professors, in order to compare the translated English version with Original English version. Seventh expert determined the accuracy of translated items while choosing most appropriate items from three different Urdu translated copies of Nomophobia Questionnaire (NMP-Q). Having completed final draft, administration of Urdu version was done on the sample selected for this specific purpose in group setting.

Data Analysis

Having collected data for study phase 1, reliability (Cronbach alpha & Pearson Correlation Coefficient) and validity (KMO & CFA) were determined using SPSS with Amos.

Phase II

In the second phase, total five hundred emerging adults, daily users of smart phones, were conveniently recruited. Before data collection, they were briefed the research purpose and participant's role besides assuring confidentiality of their provided personal information. Data, using demographic information form and Urdu version of Nomophobia Questionnaire (NMP-Q), were collected in individual and group setting with the consent of every participant. Having data collection, all participants were paid thanked for their volunteer cooperation and effort they put to made this project successful.

Data Analysis

Statistical analysis of the obtained data for study phase II was done by computing descriptive statistics and independent samples t-test using SPSS Version-23.

Results

Table 1: Summary of Cronbach's alpha for Nomophobia Questionnaire-Urdu

Measure and its Factors	<i>k</i>	α	<i>M</i>	<i>SD</i>
Factor 1: Not being able to Communicate	6	.87	28.15	8.95
Factor 2: Loss of connection	5	.80	21.04	7.41
Factor 3: Giving up convenience	5	.77	21.91	7.25
Factor 4: Not being able to get information	4	.73	18.53	5.43
Full Nomophobia Questionnaire [NMP-Q]	20	.90	89.64	23.07

Table 1 is displaying the output obtained through Cronbach's alpha for full and subscales of Urdu Version of Nomophobia Questionnaire [NMP-Q]. Overall, alpha value .90 indicated excellent internal consistency among all 20 items, while alpha value for factor 1 ($\alpha = .87$), and for factor 2 ($\alpha = .80$) depicted good internal consistency. However, alpha value for factor 3 ($\alpha = .77$) and for factor 4 ($\alpha = .73$) seemed acceptable.

Table 2 . Correlation between English and Urdu Version of NMP-Q

Measure	<i>r</i>	<i>p</i>
Nomophobia Questionnaire [NMPQ]	.73	.000

Analysis (Table:2) has shown strong correlation ($r = .73$, $p = .000$) between English and Urdu version of Nomophobia Questionnaire (NMP-Q) when administered on the same participants with one week of interval.

Table 3. Summary of KMO and Bartlett's Test of Sphericity on Urdu Version of NMP-Q

Measure	<i>KMO</i>	X^2	<i>Df</i>	<i>p</i>
Nomophobia Questionnaire [NMP-Q]	.97	3150.57	190	.000

Table 3 displayed the output of KMO and Bartlett's Test of Sphericity on Urdu version of Nomophobia Questionnaire (NMP-Q). The KMO value of .97 indicating excellent sampling adequacy. Bartlett's Test output ($X^2 = 3150.57$, $df = 190$, $p = .000$) yielded significant correlations among variables and supported the computation of factor analysis for translated questionnaire.

Table 4. Summary of Confirmatory Factor Analysis of Urdu Version of NMP-Q

Item No.	Not being able to Communicate	Loss of connection	Giving up convenience	Not being able to get information
NC4	.813			
NC5	.765			
NC2	.761			
NC3	.758			
NC6	.695			
NC1	.597			
LC1		.753		
LC3		.660		
LC2		.657		
LC5		.598		
LC4		.520		
GC5			.749	
GC1			.683	
GC3			.666	
GC4			.564	
GC2			.483	
GI2				.792

GI1				.771
GI4				.654
GI3				.565
Eigen Value	7.232	1.839	1.484	1.081
% Variance	36.161	9.197	7.422	5.403

Table 5. Summary of Fit Indices for Confirmatory Factor Analysis of Urdu Version of NMP-Q

NFI	RMSEA	GFI	IFI	TLI	CFI
.879	0.052	0.908	0.942	.932	0.941

Table 4 and 5 displayed the summary of CFA output pertaining to the Urdu version of Nomophobia Questionnaire (NMP-Q). Ranges of items loading on Factor 1 (.597 to .813), on Factor 2 (.520 to .753), on Factor 3 (.483 to .749), Factor 4 (.565 to .792) with eigen values greater than 1 respectively exhibited correlations of all items with the construct. The Confirmatory Factor Analysis (CFA) for Urdu version of Nomophobia Questionnaire (NMP-Q) indicated a generally good model fit. Obtained values of Good Fit Index (GFI = .908), Comparative Fit Index (CFI=.94) and Tucker Lewis Index (TLI=.93) seemed to represent a good fit model. The Root Mean Square Error of Approximation (RMSEA = .052), below the cutoff of .08, depicted Urdu version of NMP-Q a good model fit. However, the value of Normative Fix Indexes (NFI = .879) represented the current model fit in acceptable range. Findings collectively established the validity of factor structure, Nomophobia Questionnaire (NMP-Q) when used in Urdu.

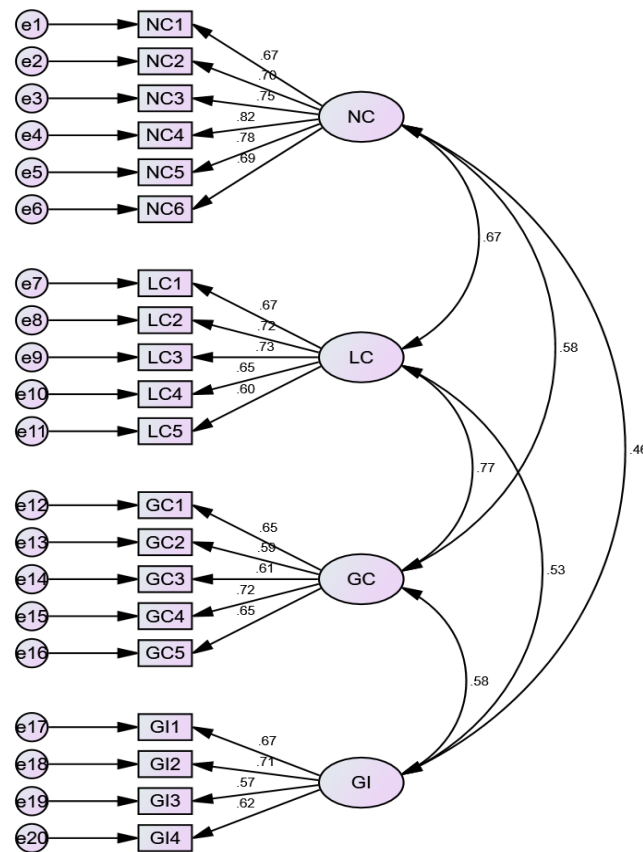


Table 6. General and gender-wise prevalence of Nomophobia (n=500)

Nomophobia and its Prevalence	General prevalence (n =500)	Gender-wise prevalence	
		Male (n = 250)	Female (n = 250)
Absent	0	0	0
Mild	62 (12.4%)	36 (14.4%)	26 (10.4%)
Moderate	275 (55%)	140 (56%)	135 (54%)
Severe	163 (32.65%)	74 (29.6%)	89 (35.6%)

Table 6 presents the summary of general and gender-wise prevalence of nomophobia in emerging adults. Majority participants (56%) reported moderate nomophobia in general and particularly in males. Gender wise prevalence estimation revealed females experiencing more severe nomophobia (35.6%), while, mild nomophobia was higher among males (12.4%) as compared to

their counterparts. Absolute zero with regards to nomophobia, irrespective of gender difference, reflecting entire sample suffering from nomophobia (mild, moderate and severe).

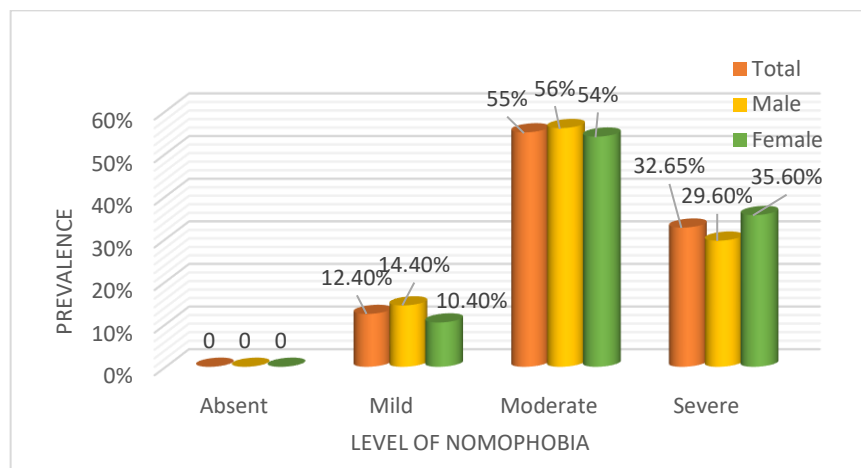


Figure 2: Prevalence of Nomophobia in Adults

Table. 7 Summary of Independent samples t-test showing gender difference in Nomophobia and its components (n=500)

Variables	Males (n=250)		Females (n=250)		t	df	P	Cohen's d
	M	SD	Mean	SD				
Not being able to get information	17.39	4.988	17.80	5.326	.884	498	.377	0.08
Giving up convenience	19.95	7.136	22.18	6.797	3.575	498	.000	0.32
Not being able to Communicate	26.39	8.982	29.24	8.065	3.736	498	.000	0.33
Loss of connection	19.74	7.933	20.52	7.432	1.140	498	.255	0.10
Nomophobia	83.47	23.689	89.74	21.529	3.098	498	.002	0.28

Output of independent samples t-test (Table:7) depicted a significant gender difference in respect to Giving up convenience ($t = 3.575, p = .000, d = 0.32$), Not being able to communicate ($t = 3.736, p = .000, d = 0.33$), and Nomophobia ($t = 3.098, p = .002, d = 0.28$). Whilst, a non-significant difference was noted on the subscale of Not being able to get information ($t = 0.884, p = .377, d = 0.08$) and Loss of connection ($t = 1.140, p = .255, d = 0.10$).

Discussions

The current study efficaciously estimated prevalence and gender difference in emerging adults using Urdu version of Nomophobia Questionnaire (NMP-Q). Like original NMP-Q, its translated version also demonstrated itself as a reliable measure (Table: 1). Internal consistency among 20 items is higher but on two subscales are in acceptable range. Likewise, previous studies ascertained higher item related internal consistency using translated versions of NMP-Q (Jellili et al., 2023; Adwai et al., 2018; Colak, 2020). Correlation between English and Urdu versions further demonstrated good cross-language validation of NMP-Q (Table:2) strengthening the suitability of translated items. Validation test results evinced NMP-Q a good fit questionnaire which all of the items seemed theoretically well-correlated with the construct (Table: 3, 4 & 5). Current obtained findings appeared to be highly consistent with previous evidences exclusively advocating NMP-Q utilization with different languages (Elyasi et al., 2018). The present obtained RMSEA valute is (0.052), and below than 0.06 RMSEA value reflects good fit model (Browne & Cudeck,1993, as cited in Abbas et al., 2019) Whereas, the values of GFI, CFI, IFI and TLI exceeded cutoff value (0.8) exhibiting appropriateness and adequacy of the tool (Hu & Bentler, 1999). With regards to factor loading, the least observed value (.483) is above the suggested value, 0.30/0.35 with 350/250 sample size (Hair et al., 2009) with eigen values (> 1) on each factor respectively establishing good association of items with the NMP-Q construct and its factors. In sum, Urdu version of NMP-Q emerged as an appropriate tool navigating its cross-culture applications.

General prevalence of nomophobia using Urdu version depicted moderate level of problem in targeted sample (Table 6) being aligned with previous investigations which noted moderate (Sethia et al., 2018) and mild to severe nomophobia (Farooq et al., 2022). A deep scientific look into gender influence reflected females experiencing severe to moderate nomophobia, while males comparatively reported mild to moderate nomophobia. Further group wise comparison showed females suffering from more nomophobia, giving up convenience and felt unable to communicate with others (Table: 7). Current findings seemed consistent with previous studies highlighting females with higher levels of nomophobia (Humood et al., 2021; Ergin & Ozer, 2021; Yildirim et al., 2016; Leon-Mejia et al., 2021).

Besides studying, South Asian girls have numerous household responsibilities which demand long stay at home. Culturally, they do not move freely out of homes like boys, hence, staying at home/doing household chores, they find phone is the only option for connecting own self with significant others. Resultantly, they enjoy spare time watching their favorite videos or having online conversation with others. In fact, they get disgruntled and anxious, if feel unable to have conversation or watch favorite program as they desire. Males, too, immensely need smart phones for various purposes but, to some extent, indulgence in different outside tasks demanding physical presence and interest, help them to control associated aftermaths in case of being disconnected via phone. Furthermore, males can freely step out of homes spending moments with friends/relatives which energize them being directly connected with the outer world. These reasons might have become the causes of obtaining significant gender difference in nomophobia, giving up convenience and not being able to communicate (**Table:7**).

Apart from this, absolute absence of nomophobia raised our concerns towards how smart phones have psychologically grabbed us (**Table: 6**). Albeit, smart phone is quintessential in linking with the outer world but its users are prone to develop various psychosocial predicaments, if they fail to set the boundaries. For instance, impatience and aggression can be seen in users as the function of nomophobia episodes (Smetaniuk, 2014, cited in Farooq et al., 2022).

Conclusion

The current study translated and validated Urdu version of Nomophobia Questionnaire (NMP-Q) for determining the prevalence and gender difference in emerging adults. Translated version (Urdu) seemed an appropriate instrument when aim is to assess nomophobia and its associated psychosocial complications. Psychometric testing effectively elucidated NMP-Q as reliable and valid instrument when used in Urdu language, as also evident by the present findings obtained during second phase of the study. General and gender-wise prevalence indicated significant nomophobia among both male and female participants. However, females suffered from more nomophobia in form of giving up convenience and not being able to communicate via phone. Absolute zero of nomophobia pointed out how smart phones are meddling our daily functioning, almost all life domains. Present findings have implications for individual, society and government as well. Dire consequences associated with careless and unnecessary smart phone use has initiated the debate of including nomophobia in Diagnostic and Statistical Manual for Mental Health Disorder so that proper preventive and treatment framework could be designed (Farooq et al., 2022).

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