



Online-Offline Rejection Sensitivity and Nomophobia: A Study among College Students

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Abstract

In today's digital era, research in cyberpsychology has become increasingly important. Given that previous studies have identified heightened sensitivity towards smart phones and social media in young adults, the present study aimed to explore the relationship between nomophobia and online-rejection sensitivity. Standardized scales: the Nomophobia Questionnaire (NMP-Q) and Online-offline Social Sensitivity Scale (O2S3) were used for assessment on a sample of 64(M=32,F=32) college students. Data collection was conducted online. Results indicated a negative correlation between levels of nomophobia and online-offline rejection sensitivity. No significant gender differences was found in either variables. To reduce the levels of nomophobia among college students digital detox zones, workshops for students as well as family members should be implemented. Social skill training, role playing and stimulated social settings that provide a safe space can help reduce rejection sensitivity.

Keywords: *Nomophobia, Online-Offline Rejection Sensitivity, College Students*

Introduction

“Our constant connectivity creates an illusion of belonging, yet it often amplifies our fears of isolation and rejection”

~Sherry Turkle

Nowadays, most of our social interactions takes place online, with smart phones being the most common tool to access the internet. Smartphones are the most accessible, cheap and easy to use devices. Their role has evolved significantly – from being used for calling purposes to spending most of our time on our devices and on internet. This has its negative as well as positive effects. One of the most concerning negative effects being that now without one’s phones or without internet connectivity one may feel anxious, restless and bored which is known as nomophobia. This modern phobia is particularly prevalent in young adults.

A study conducted at three private university students in Lima involved a total of 372 students to examine the frequency of nomophobia and its associated factors using the Nomophobia Questionnaire. The results indicated that 65.6% of students were at a risk for nomophobia and 19.6% were nomophobic. Furthermore, the manifestations and risk of nomophobia was most prevalent in the age group of 21-30 years, with frequencies of 50.7% and 46.3% respectively (Sosa-Delgado et al., 2023).

Another study with 164 participants studied the relationship between nomophobia and distraction and addiction was examined using the Smartphone Addiction Scale, the Mindful Attention Awareness Scale and the Nomophobia Questionnaire as standardized measures. The results revealed that distraction, addiction and nomophobia scores were moderately to strongly correlated. It was also found that males reported higher levels for nomophobia but lower levels of addiction than females, while no gender differences were noted in distractions (Oraison & Wilson, 2024). The seriousness of nomophobia is underscored by the fact that some researchers

have suggested its inclusion in the diagnostic and statistical manual of mental disorders as a separate phobia.

In today's world, young adults often use their phones to avoid any uncomfortable situations making the study of how people react to rejection in social contexts increasingly important. Rejection sensitivity can be understood as increased emotional response an individual experiences to perceived rejection in online as well as offline environment. Rejection sensitivity has been studied in relation to online environments and a variety of factors: In a study by Zimmer – Gembeck, Scott and Hawes (2024) the relationship between online appearance preoccupation with factors such as appearance related teasing, rejection sensitivity, acceptance and coping as risk and resource factors was examined. A sample of 752 adolescents from schools and universities in Australia was used. The results showed that online appearance teasing, appearance rejection sensitivity and positive coping were uniquely associated with online appearance preoccupation. Moreover, the association between peer appearance testing and online appearance preoccupation was stronger in young males than in females.

In another study by Back et al. (2019) involving 1,865 participants the relationship between rejection sensitivity and political behavior on social media was examined. Using standardized scales, data were gathered through an online survey. The results showed that the rejection sensitivity index ranged between 1 to 24.4, with the mean of 6.7. The study concluded that higher rejection sensitive individuals are less likely to attempt to influence others politically on social media.

Nomophobia

According to King et al. (2010) nomophobia “denotes discomfort or anxiety when out of mobile phone (MP) or computer contact. It is the fear of becoming technologically incommunicable, distant from the MP or not connected to the Web.”

According to Anshari et al. (2019) nomophobia “it is a type of behavioral addiction to smart phones based on the feeling of anxiety and restlessness or anxiety in situation where a person is unable to access a smart device and reach all the benefits it provides.”

A sample of 371 students aged 18-25 years was used for the study. Scales included the Nomophobia Questionnaire and McGill Friendship Questionnaire-Friend’s Functions (Short). The results indicated that there is a significant positive relationship between nomophobia tendencies and friendship quality (Regina & Goei, 2024).

The study involved 478 university students, comprising 238 from Azerbaijan and 240 from Kyrgyzstan. Standardized scale included Nomophobia Questionnaire to evaluate the level of nomophobia in students. The results indicated that Azeri students experience a more severe level of nomophobia (36.1%) than Kyrgyz students (23.3%). Additionally, female students in both countries have higher level of nomophobia than males. Smartphone ownership plays a significant role in nomophobia levels (Adanir & Muhametjanova, 2024).

A study was conducted on a sample of 152 individuals aged 18-25 years. Standardized scales were used, including Nomophobia Questionnaire, Beck’s Anxiety Inventory and Rosenberg Self-Esteem Scale. The findings revealed a significant positive correlation between Nomophobia and Anxiety and a significant negative correlation between Nomophobia and Self Esteem. Gender differences indicated that females have higher level of anxiety than males (Kaur, 2024).

Rejection Sensitivity

According to Mehrabian (1976) rejection sensitivity refers to as “avoidance of behaviors or situations involving arguments or critical interaction; fear of expressing personal opinions when these might be rejected; timidity in situations where there is slightest possible hint of rejection; being easily hurt my feedback from others and fearing such feedback; and reliance on familiar others as a means of avoiding rejection.”

According to Downey and Feldman (1996) rejection sensitivity is a “cognitive affect disposition to anxiously expect, readily perceive and intensely react to rejection”

The study was conducted on a sample of 40 young adults aged 18 to 25 years using standardized scales. The results revealed significant positive relationship between social media use, fear of missing out and social rejection sensitivity. The author recommended that attention should be redirected towards outdoor activities and reduction in screen time (Banga, 2024).

The study was conducted on 725 college students using standardized scales including Self Control Scale, Rejection Sensitivity Questionnaire, Loneliness Scale and Internet Addiction Scale. The results showed that self-control was negatively correlated to rejection sensitivity, loneliness and problematic internet use whereas both loneliness and rejection sensitivity were positively correlated to problematic internet use. Moreover, rejection sensitivity (9.76%) and loneliness (20.73%) served as chain mediators in the link between self-control and problematic internet use (Fan, Chen & Lin, 2022).

The study was conducted on four separate samples, totaling 2381 participants aged between 12-89 years, to develop a scale of online –offline rejection sensitivity. Other standardized scales were also used. The results showed a strong association between online - offline rejection sensitivity and both depressive symptoms and maladaptive ruminative brooding. Additionally, a decrease in rejection sensitivity in online and offline contexts was observed as age increased, from adolescents to older age (Andrews et al., 2022).

Purpose

The study focuses on the online-offline rejection sensitivity and the level of nomophobia among college students.

Hypothesis

- **Hypothesis 1:** There will be a significant relationship between nomophobia and online-offline rejection sensitivity among college students.
- **Hypothesis 2:** There will be no significant gender differences in the level of nomophobia among college students.
- **Hypothesis 3:** There will be no significant gender differences in online-offline rejection sensitivity among college students.

Method

A total sample comprised of 64 college students (n=32 F, n=32 M) in the age group of 18 to 25 years old was collected from the city of Panchkula.

Measures

Nomophobia Questionnaire (NMP-Q): The scale developed by Yildirim and Correia (2015) measures the severity of nomophobia across four dimensions: not being able to communicate, losing connectedness, not being able to access information and giving up convenience. It's a 20 item self-reported questionnaire, which uses seven-point Likert scale

with 1 indicating “strongly disagree” and 7 indicating “strongly agree”. The total scores are obtained by adding scores on all 20 items.

Online-Offline Rejection Sensitivity Scale (O2S3): The scale was developed by Andrew et al. (2022) to assess rejection sensitivity in online and offline social environments. It evaluates four factors – worry about other’s approval, online social interaction, individual’s perceived social investment potential social risk taking. It consists of 18 items and is a self-administered questionnaire. It uses a four-point Likert scale ranging from “strongly disagree” to “strongly agree.” Total scores are obtained by summing scores on all items.

Procedure

Google forms were used to collect data from participants. The first section of the form included a consent statement, which participants had to agree to before proceeding. Standardized scales (Nomophobia Questionnaire and Online-Offline Social Sensitivity Scale) were used to collect data from participants. Participants were thanked for their active participation after completing the forms.

Analysis of Data

Results

Table 1: *N, Mean and SD of Nomophobia and Online-Offline Rejection Sensitivity of College Students.*

	Gender	Nomophobia	Not being Able to Communicate	Losing Connectedness	Not Being Able To Access Information	Giving Up Convenience	O2S3	Worry About Approval	Online Social Interaction	Social Investment	Social Risk Taking
N	Female	32	32	32	32	32	32	32	32	32	32
	Male	32	32	32	32	32	32	32	32	32	32

Mean	Female	65.0	21.7	13.6	13.5	16.3	42.5	12.7	10.5	9.44	9.97
	Male	54.2	16.9	11.8	12.3	13.1	42.5	12.7	10.5	9.38	10.0
Standard deviation	Female	28.2	11.3	8.06	6.46	7.85	8.95	3.23	3.56	2.14	2.42
	Male	31.7	10.9	8.47	6.82	8.34	11.7	3.98	4.32	2.57	2.63

Table 2: *Correlation Matrix Between Nomophobia and Online-Offline Rejection Sensitivity*

	Nomo phobia	Not being Able to Communicate	Losing Connected ness	Not Being Able To Access Informatio n	Giving Up Convenience	O2S3	Worry About Approval	Online Social Interaction	Social Investm ent	Social Risk Taking
Nomo phobia	—									
Not being Able to Communicate	0.930***	—								
Losing Connectedness	0.848***	0.725***	—							
Not Being Able To Access Information	0.804***	0.659***	0.543***	—						
Giving Up Convenience	0.911***	0.796***	0.691***	0.710***	—					
O2S3	-0.049	-0.016	-0.024	-0.125	-0.034	—				
Worry About Approval	0.029	0.049	0.039	-0.009	0.006	0.811***	—			
Online Social Interaction	-0.011	0.047	0.047	-0.172	-0.014	0.897***	0.581***	—		
Social Investment	-0.093	-0.091	-0.034	-0.144	-0.070	0.794***	0.506***	0.667***	—	
Social Risk Taking	-0.139	-0.126	-0.195	-0.100	-0.063	0.812***	0.528***	0.675***	0.568** *	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3: *Independent Sample T Test Between Males and Female College Students*

		Statistic	df	p
Nomophobia	Student's t	1.4452	62.0	0.153
Not being Able to Communicate	Student's t	1.7100	62.0	0.092
Losing Connectedness	Student's t	0.8770	62.0	0.384
Not Being Able To Access Information	Student's t	0.6775	62.0	0.501
Giving Up Convenience	Student's t	1.5581	62.0	0.124
O2S3	Student's t	0.0000	62.0	1.000
Worry About Approval	Student's t	0.0000	62.0	1.000

Online Social Interaction	Student's t	-0.0316	62.0	0.975
Social Investment	Student's t	0.1056	62.0	0.916
Social Risk Taking	Student's t	-0.0495	62.0	0.961
<i>Note. $H_a: \mu_{\text{Female}} \neq \mu_{\text{Male}}$</i>				

Table 4 :Group Descriptives

	Group	N	Mean	Median	SD	SE
Nomophobia	Female	32	65.00	60.50	28.21	4.986
	Male	32	54.16	44.50	31.72	5.607
Not being Able to Communicate	Female	32	21.69	21.50	11.29	1.996
	Male	32	16.94	12.50	10.93	1.932
Losing Connectedness	Female	32	13.59	10.50	8.06	1.424
	Male	32	11.78	9.00	8.47	1.498
Not Being Able To Access Information	Female	32	13.47	14.00	6.46	1.142
	Male	32	12.34	11.00	6.82	1.205
Giving Up Convenience	Female	32	16.25	15.00	7.85	1.388
	Male	32	13.09	10.50	8.34	1.475
O2S3	Female	32	42.53	42.00	8.95	1.582
	Male	32	42.53	39.00	11.71	2.069
Worry About Approval	Female	32	12.66	13.00	3.23	0.571
	Male	32	12.66	12.00	3.98	0.704
Online Social Interaction	Female	32	10.47	10.00	3.56	0.630
	Male	32	10.50	10.00	4.32	0.763

Social Investment	Female	32	9.44	9.00	2.14	0.378
	Male	32	9.38	9.00	2.57	0.455
Social Risk Taking	Female	32	9.97	10.00	2.42	0.427
	Male	32	10.00	10.00	2.63	0.464

Discussion Of Results

The purpose of this study was to gain better understanding of relationship between nomophobia levels and online-offline rejection sensitivity in college students. The results indicate a negative correlation between these two variables ($r = -0.049$), which can be interpreted as if the participant has high nomophobia level, online-offline rejection sensitivity will be low and vice versa. The results negate our hypothesis because the results are not significant at $p=0.05$ level.

Harper, Dickson and Welsh (2006) explored the relationship between rejection sensitivity, self-silencing behaviours and depressive symptomatology on dating adolescents. The sample consisted of 211 couples aged between 14 to 21 years. Results concluded that adolescents who were high on rejection sensitivity were present with more depressive symptomatology and higher levels of self-silencing behaviours compared to adolescents with lower rejection sensitivity.

This study also examined gender differences in nomophobia and online-offline rejection sensitivity among college students. No significant gender differences were found in nomophobia levels($t=1.44$), which confirms our null hypothesis. The present results are in contrast with an earlier study by Kumar and Banerjee (2024) which explored the prevalence of nomophobia in college students using the Nomophobia Questionnaire. The results concluded that female students(98.8%) exhibited a slightly higher level of nomophobia than male students(94.4%).

Lastly, no gender differences were found in online-offline rejection sensitivity ($t=0.00$), which also supports our null hypothesis. The present results are inconsistent with study done by Maiolatesi et al.(2022) on a sample of 1,679 participants aged between 18-36 years. Standardized measure were used. Results showed that men, heterosexuals and participants aged from 30-36 years old exhibited lower levels of rejection sensitivity than women, sexual minorities and participants aged between 18-29 year old respectively.

Conclusion

The study sought to examine the relationship between nomophobia and online-offline rejection sensitivity among college students. A sample of 64 college students (M=32,F=32) was taken and standardized scales including Nomophobia Questionnaire and Online-Offline Social Sensitivity Scale were used. The data collection was done using Google Forms. The results indicated a negative correlation between level of nomophobia and online-offline rejection sensitivity($r=-0.049$). However, it was not significant. Moreover, no gender differences were found for the level of nomophobia and online-offline rejection sensitivity in college students.

Despite there being no significant findings, this research can be seen as first to study the two variables together, which to my knowledge, have not been directly linked. Future studies can focus on examining online-offline rejection sensitivity with variables such as self-esteem, parenting styles, body image and others. As growing usage of smart phones is seen, exploring nomophobia with variables such as coping strategies, Indian population of different age groups can be done to better understand the severity of it.

To address nomophobia, digital detox should be encouraged among students, mobile free zones could promote in person interactions. Workshops which focus on healthy digital habits should be encouraged not only for students but also their family members which will help enforce these habits more effectively. To reduce rejection sensitivity, role-playing

exercises or creating stimulated social settings in safe environments and exposing students gradually to rejection and teaching them to deal with situations can help them. Furthermore, social skills training with experts, counsellors, can improve interpersonal communication and conflict resolution skills.

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