

Attachment Style: Influence of Social Phobia on Nomophobia

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The present study investigated the relationship between nomophobia, attachment styles and social phobia and the influence of social phobia on nomophobia. The study hypothesized that there is a relationship in between nomophobia, attachment styles and social phobia, also social phobia and age has an influence on nomophobia. Quantitative survey research design and purposive sampling was used. A sample of 400 university students was selected. Data was collected through Adult Attachment Questionnaire (AAQ; Simpson et al., 1996), Nomophobia Questionnaire (NMP-Q; Yildirim & Correia, 2015), Short form of Social Interaction Anxiety Scale and Social Phobia Scale (SIAS-6, SPS-6; Peters et al., 2012). To analyze the data SPSS V21 was used. Results indicate that nomophobia has significant correlation with attachment style and anxiety attachment style. Nomophobia has non-significant correlation with avoidant attachment style. Nomophobia has significant correlation with social phobia. Regression analysis shows that there is a significantly strong effect of nomophobia on social phobia. Whereas age did not predict nomophobia.

Keyword: Attachment Style, Social Phobia, Nomophobia

The technology like mobile phone has so many attributes that an individual gets attract to it (Chóliz, 2010). This attraction of a mobile phone caused a condition called Nomophobia when an individual feels anxiety and fear when they get disconnected from their mobile phone (Jayakumar, 2008). A study by Hastuti (2022) stated that nomophobia is considered as psychiatric disorders and included in psychiatric disorder in DSM-IV. Nomophobia was first discovered in UK above 50% of mobile phone users feels stress and anxiety when they are out of range from their mobile phone (Yildirim & Correia, 2015). Young generation such as students depends on their smartphone to get information or daily news (Anshari & Alas, 2015). In research by Muge et al. (2016) it was stated that 50% of youth never switched off their mobile phone and 61% of people first check their mobile phone after waking up (Walsh et al., 2010). Individuals with nomophobia leads to higher rate in stress and loneliness (Zwilling, 2022). Excessive usage of mobile phone caused addiction of mobile phone which is an alarming indication for students (Hong, et al., 2012). Research indicated that academic performance of a student effects, when a cell phone is taken away (Kates, et al., 2018). Nomophobia impacts two of the factors, one is addiction of unusual objects like technology and other is losing control of temperament (Tunc & Tunc, 2021). It has also been found that Nomophobia can distress individuals of dissimilar age groups (Coskun, & Kaya, 2020). Individuals of various ages can develop a sturdy attachment to their smartphones, leading to uneasiness or anxiety when they are unable to use them (Fullwood et al., 2017). This dependence on mobile technology is a shared experience across generations in today's digital age (Sanjit, 2017).

Attachment is a bond that is created with another person, like parent or caregiver (Perry, 2001). Secure attachment style is about an infant's wants and needs (Newton, 2008). Parents need to concentrate on developing secure attachment bond with their parents or caregiver

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before interacting unfamiliar situations (Haight & Black ,2003). Attachment theory supports the concept that positive behavior of parents leads to secure attachment style (Simpson, J. A., & Belsky, J. ,2008). Whereas negative behavior of parents leads to insecure and anxious attachment style (Brown, A. M., & Whiteside, S. P. ,2008). Infants children attachment is likely to have same attachment style of their parents as parents play significant role in developing their children attachment bond (Malekpour, M. (2007).

Research on relationship between attachment styles and nomophobia indicates that there are some irregular behaviors that are present, like calling while driving, less sleep and anxiety in social situations or social phobia (Parent, N., 2019). Fearful and pre-occupied attachment style has positive association with nomophobia and secure attachment style has negative association with nomophobia (Gohar, A., & Munir, M., 2022). Findings also says that individuals with insecure attachment styles has association with social anxiety that leads to depression (Eng., Winnie, et al.,2001). Attachment styles also have significant relationship with social phobia (Erozkan and Atilgan, 2009).

Individuals with secure attachment style scored lower in social anxiety and in depression while individuals with insecure attachment scored higher in both social phobia and depression (Muris et al.,2001). Insecure attachment style also likely to have different phobias like social phobia which is mediated by self-esteem (Ahmadbeigi, N., Hashemi, T., Parvaz, S., & Karimishahabi, R., 2015). Insecure attachment is likely to have addictions whereas secure attachment styles show no tendency in rate of addictions (Eichenberg et al.,2017). Insecure and anxious attachment style also reported unusual relationship with objects and situation (Barazandeh, H., Kissane, D. W., Saeedi, N., & Gordon, M. 2016). Anxious attachment likely to have more dependence on their mobile phone that is nomophobia as compare to secure attachment style (Konok, V., Gíglér, D., Bereczky, B. M., & Miklósi, Á.,2016)

The term social phobia arrived in DSM-III that is Diagnostic and Statistical Manual of Mental Disorders, which describes that an individual feels anxiety when he has to interact with other people (Newman, Michelle G., et al ,2003). Social phobia caused by various factors like negative expectations of social situation, thoughts having negative responses from people in those situations, or any type of addiction be it an objects addiction or a drug addiction (Manus et al.,2002). Even it is hard to differentiate social phobia from sever social anxiety syndrome but social phobia can be found even in general population (Furmark, T. ,2002). O'Day, E. B., & Heimberg, R. G. (2021) believes that most of the social phobic situations reported due to avoidance in family, friends or social network sites. The impact of social phobia are long term and results in low performance at work or academically (Strahan, E. Y. ,2003). Social phobia also effects the interpersonal thoughts (Lynn E. Alden and Charles T. Taylor, 2004). Social phobia and avoidance attachment style both are positively correlated with nomophobia and also positively correlated with social phobia and excessive usage of a mobile phone (Przepiorka, A., Błachnio, A., Cudo, A., & Kot, P. ,2021).

Nomophobia, Attachment styles and social phobia have a significant impact on individual's life (Gohar, A., & Munir, M. ,2022). Many researches supported the relationship between attachment style and nomophobia (Parent, N., & Shapka, J. ,2020). In-fact nomophobia has been compared to many disorders including insecure attachment and anxiety attachment disorders, panic disorder and others (Bekaroğlu, E., & Yılmaz, T. ,2020). A research by Sun, Yicong, et al. (2022) proved that attachment style and loneliness significantly play mediating role between neuroticism and nomophobia whereas neuroticism, loneliness, attachment anxiety and nomophobia has very strong correlation with each other. Sagar, K. (2019) study on students stated that 23% were diagnosed to nomophobia, 64% likely to have

nomophobia and 77% constantly check their mobile by the average of 35 times a day. Whereas a study conducted on young people, 8.5% of university students were diagnosed severe nomophobia, 7.5% diagnosed as moderate nomophobia and 2.0% had mild nomophobia (Gurbuz, I. B., & Ozkan, G. ,2020). Individuals feel fear of missing out (FOMO), due to excessive use of mobile phone hence they want constant availability of mobile phone (Upreti, A., & Musalay, P. ,2018).). Because of nomophobia and excessive usage of technology physical, social and mental health effects badly (Notara, Venetia, et al. 2021). A social and mental health problem that arrived significantly is social interaction anxiety or social phobia (Yilmaz, M., & Tekin, Ö. E., 2023).

Apak and Yamin, (2019) identified that nomophobia is an excessive problem in today world but social phobia is also becoming a huge problem. There is positive relationship between nomophobia and social phobia (Ran, Guangming, et al.2022). A theory that supports social phobia is social learning theory (Alden, L. E., & Taylor, C. T. ,2004). Social learning theory tells that an individual perceive thing through their own experiences (Learning, S. ,2003). As the excessive usage of mobile phone increases, they tend to have higher level of nomophobia, which leads to social isolation that is social phobia (Bhattacharya, Sudip, et al. 2019).

Another theory that supports the relationship between social phobia and nomophobia is FOMO which is Fear of Missing Out. (Shiva, A., Narula, S., & Shahi, S. K. ,2020). This is the fear that an individual has when they feel that they are missing out of their social concerns. Bifulco, Antonia, et al. (2006) identifies the relationship between attachment style and social phobia, insecure and anxious attachment style leads to the chances of higher level of social phobia/ social anxiety, higher level of depression and higher level of stress. Children with insecure attachment are likely to have higher level of anxiety behavior and children with secure attachment are likely to have low level of anxiety behavior (Peter et al. 2012). In a systematic review Manning, Ray PC, et al. (2017) found that due to attachment style or insecure attachment people likely to be insecure in their romantic relationships and it is also significantly correlated with social phobia.

The fear related to being without a mobile phone is a prevalent phenomenon, and it's not limited to any exact age range (King, Anna Lucia Spear, et al.,2014; Cheever, Nancy A., et al,2014). According to Gezgin, D. M., Cakir, O., & Yildirim, S. (2018) Nomophobia can affect people of various age groups, and its prevalence may be influenced by aspects such as personal attachment to technology, dependence on smartphones for numerous activities, and individual personality traits (Dalbudak, I., Yilmaz, T., & Yigit, S. ,2020). Different age groups may have varying degrees of smartphone usage and dependency, but age alone is not sufficient to predict nomophobia (Durak, H. Y. ,2019). Several studies suggest that younger individuals, who have grown up with technology, may exhibit higher levels of smartphone dependence (Ahn, J., & Jung, Y. ,2016). However, older individuals can also experience nomophobia, especially if they have integrated smartphones into their daily lives (Busch, Peter André, et al.,2021).

The theories that develop theoretical framework of this Cognitive-Behavioral theory and Attachment theory. Trub, L., & Barbot, B. (2016). says secure attachment leads to positive outcomes and insecure attachment leads to negative outcomes which in this insecure attachment leads to negative outcomes that is social phobia and nomophobia. Cognitive-behavioral theory says that human thoughts, behaviors and actions are inter-connected with each-other hence negative emotions and negative thoughts leads to the negative outcomes (AFOLABI-IGE, T. E. ,2016).

Research Objective

- 1) To find out the relationship between attachment style, nomophobia and social phobia.
- 2) To find out the influence of social phobia and age on nomophobia.

Method

Research Design

The purpose of this study was to examine the relationship between Attachment Style, Nomophobia and Social Phobia and the influence of social phobia on nomophobia. Quantitative survey research design was used for the study.

Participants

For current research purposive sampling method was used. Whereas sample of the present study comprised of 400 students (Male $n=202$; Female $n=198$). Age bracket was 18 to 25 years and responses were collected from public universities.

Measures

For current study following measures were used in the study:

The Adult Attachment Questionnaires (AAQ)

This questionnaire is developed to measure the attachment style of an individual in any relationship. It measures three attachment style (secure, anxiety and avoidant). The reliability is $\alpha = 0.72$ to 0.84 . This is a 17-item scale comprises of two sub-scales which are Anxiety & Avoidant. Anxiety items are (1, 2, 3, 5, 6, 7, 8, 9) and Avoidant items are (4, 10, 11, 12, 13, 14, 15, 16, 17). Item no. 1, 3, 4, 12, 14, 16, and 17 are reversed score items. Each 17-items answered on a 7-point Likert-scale that goes from 1= strongly disagree to 7= strongly agree.

Nomophobia Questionnaire (NMP-Q)

The qualitative research had been done and then created this NMP-Q which is a Nomophobia Questionnaire. This scale is a 20-item scale and have not any sub-scales as well as reversed items. The reliability ranges from 0.78 to 0.92 . Each 20-item answered on a 7-point Likert-scale that goes from 1= strongly disagree to 7= strongly agree. This scale has four dimensions which are: not being able to communicate, losing connectedness, not being able to access information, and giving up convenience.

Social Interaction Anxiety Scale (SIAS) and Social Phobia Scale (SPS-6):

Six items comprise of these both two scales and then made this 12-item scale. It has not any reversed item scored as well as sub scales. Each 12 items answered on rating scale of 5 which goes from 0= Not at all characteristic or true of me to 4= Extremely characteristic true of me. The reliability was $r = 0.92$ for the SIAS and ranged from 0.91 to 0.93 for the SPS.

Procedure

To measure the relationship between nomophobia, attachment style and social phobia and influence of social phobia on nomophobia. A consent form was given to participant that ensured that their participation is voluntary and they can withdraw from the study at any time. The participants were informed about the purpose of this study and only the researchers have access to their personal information. Data is collected through purposive sampling and it has been analyzed in SPSS. Ethical considerations were followed throughout.

Results**Table 1***Summary of Descriptive Statistics of Statistics (N=400)*

Variables	<i>f</i>	%	<i>M</i>	<i>SD</i>
Age			20.96	1.855
Gender				
Male	202	49.5		
Female	198	50.5		
Siblings			4.14	1.977
Marital Status				
Single	354	88.5		
Engaged	31	07.8		
Married	10	02.5		
Divorced/Separate	4	01.0		
Widowed	1	00.3		
Parent Type				
Single Parent	22	05.5		
Both Parents	378	94.5		
Family Structure	400			
Joint Family	140	35.5		
Nuclear Family	260	65.5		
Education	400			
Matriculation	0			
Intermediate	0			
Under-Graduate	384	96.0		
Post-Graduate	16	04.0		
Socio-Economic Status	400			
Lower	6	01.5		
Lower-Middle Middle	38	09.5		
Upper-Middle	275	68.8		
Upper	72	18.0		

Table 2*Pearson Moment Correlation among Nomophobia, Social Phobia & Attachment Style (N=400)*

	Nomophobia	Social phobia	Anxiety	Avoidance	Adult Attachment
Nomophobia	-	.760**	.122*	.072	.139**
Social phobia		-	.101*	.011	.074
Anxiety			-	-.17	-.709**
Avoidance				-	.693**
Adult attachment					-

Note. ** $P < .05$, * $P < .01$. Correlation is significant at the 0.01 level (2-tailed).

Pearson Moment Correlation method used to find out the inter-correlation between variables which are attachment style, nomophobia and social phobia. Pearson correlation applied to a data of 400 university students. Inter-correlation analysis results show nomophobia

has significant correlation with attachment style at ($r=.139$, $p<.005$) .nomophobia has significant correlation with anxiety attachment style at ($r= .122$, $p< 0.05$). Results also show that nomophobia has significant correlation with social phobia at ($r=.760$, $p<.001$)

Table 3

Simple Linear Regression of Social Phobia and Age on Nomophobia (N=400)

Variable	β	SE	t	p	95%CI
Social-Phobia → Nomophobia	.760	5.22	-3.7	.01	[-29.64,-9.094]
Age →Nomophobia	.038	11.80	9.33	.01	[86.99,133.39]

Simple Linear Regression Analysis was used to test if the social phobia significantly predicted effect on nomophobia. The results indicated that social phobia predicts nomophobia .Social phobia explained 1.5% variance in nomophobia ($R^2= 0.015$, $F=6.153$, $P<0.05$). whereas age doesn't predict nomophobia.

Discussion

In the present era, there are many ways to communicate with each other but still people are attaching themselves to their mobile phones intensely (Li, X., & Hao, C., 2019). This attachment of mobile phone causes social phobia, people with nomophobia find comfortable to contact virtually rather than interacting socially (Hasmawati, Fifi, et al., 2020). This study was conducted to investigate the relationship between these variables that are attachment style, nomophobia and social phobia, and also to find the effect of social phobia on nomophobia.

Yildirim, C., & Correia, A. P. (2015) explored the dimensions of nomophobia and found that individuals with anxious-preoccupied attachment styles were more likely to experience nomophobia. They found a significant correlation between high levels of nomophobia and anxious attachment. Sun, J., & Miller, C. H. (2023) examined that smartphone attachment and self-regulation mediate the relationship between avoidant attachment and phubbing. The research demonstrated both direct and indirect associations between attachment avoidance, smartphone attachment, self-regulation, and phubbing.

Sun, Yicong, et al. (2022) aimed to find out whether nomophobia levels are higher in adolescents and to investigate the correlation of nomophobia levels with externalizing and internalizing symptoms, the study also supported the fact nomophobia has significant correlation with anxiety attachment style.

Results indicate that nomophobia has significant correlation with attachment style and anxiety attachment style. Nomophobia has non-significant correlation with avoidant attachment style However, it's essential to consider this relationship within the broader context of individual differences and other factors that can influence one's susceptibility to nomophobia. A study on adolescents also proved Separation anxiety, social phobia, total anxiety, depression, hyperactivity and oppositional problems positively correlated with nomophobia total score (Kuscu, Tugba Didem, et al., 2021). This study also supported our findings that nomophobia has significant correlation with social phobia.

It's important to emphasize that human behavior is complex, and individual differences play a significant role in how people experience and respond to technology-related anxieties like nomophobia. While some individuals with avoidant attachment styles might be more likely to experience nomophobia, there are various other factors at play, including smartphone usage patterns, social and cultural influences, and psychological factors.

People who feel anxiety in their relationships and find it difficult to connect with their close relationships suffers from anxiety attachment, also have positive relationship with nomophobia (Santl, L., Brajkovic, L., & Kopilaš, V. ,2022). Elhai, J. D., Levine, J. C., & Hall, B. J. (2019) found that Anxiety was also consistently related to problem use, but with small effect sizes. A study by (Ozge Enez & Ozden Yalcinkaya-Alkar, 2021) determined that attachment styles, mobile attachment and nomophobia are all positively correlated with each other. Literature support the hypothesis that people with anxiety, avoidance, and insecure attachment style also have social phobia in them (Notzon, S., et al,2016). Öztürk, A., & Mutlu, T. (2010) concluded that social phobia with avoidant and anxiety attachment individuals is comparatively higher than social phobia with secure attachment style individuals. Avoidant and anxiety attachment style people have severe social anxiety people and secure attachment style has less severe social anxiety (Eikenaes, Ingeborg, et al., 2015). Secure attachment has weak correlation with social phobia but avoidant attachment has strong relationship with social phobia (Tamannaefar, M., & Sanatkarfar, M. ,2017). Researchers reported that as the level of social phobia increases, the level of nomophobia is also likely to be increased (Uysal, Ş., Özen, H., & Madenoğlu, C., 2016). A research concluded that positive correlation in between nomophobia and social phobia in young adults of university students (Kaur, Ashvneet, et al., 2021).

The Regression analysis of this research also shows that there is a significantly strong effect of nomophobia on social phobia. These results are supported by numerous researches. The study on social phobia in higher education also concluded that nomophobic behavior of young adults predict their social phobia levels to a small extent. That is, when nomophobia level increases, their social phobia level is predictable with the increase concerned (Uysal, Ş., Özen, H., & Madenoğlu, C. ,2016).The research conducted on The Role of Loneliness and Social Anxiety in Adolescent Nomophobia indicates that loneliness and social anxiety have an influence on nomophobia among adolescents(Faiz, A. N., Suroso, S., & Farid, M. ,2023). A study on nursing students examined the effect of problematic Internet use, social appearance anxiety on nomophobia levels was assessed according to the regression analysis, results show that nomophobia levels have a strong, positive, and significant relationship with all the variables (Ayar, Dijle, et al.,2018). Results also indicates that age doesn't predict nomophobia. Nomophobia exists across all age groups (Kaviani, Fareed, et al.,2020).A research to analyze the prevalence of nomophobia among young proved that problem may affect all ages equally (Moreno-Guerrero, Antonio-José, et al.,2020). Another research on problematic use of technology and prevalence of nomophobia, did not find any relationship of nomophobia with variables such as age (Argumosa-Villar, L., Boada-Grau, J., & Vigil-Colet, A. ,2017). Another research on prevalence of nomophobia has found that nomophobia exists across all age groups (Yildirim, Caglar, et al.,2016). An examination on the prevalence and relationship of smartphone addiction, nomophobia, and social anxiety concluded that Smartphone addiction is a significant predictor of nomophobia and social anxiety (Khan, Sehrish, et al.,2021).

Conclusion

The relationship between nomophobia, attachment style, and social phobia is a complex and multifaceted one. In conclusion, nomophobia, attachment style, and social phobia at the same time are interconnected, but the precise nature of their influence varies among individuals. While social phobia nomophobia can contribute to nomophobia, not as a sole cause but to an extent. Comprehensive research and a personalized approach to treatment are necessary to address these issues effectively. Moreover, developing interventions reducing smartphone dependency, promoting healthy attachment styles, and providing social anxiety support can be important steps in mitigating the potential negative impacts of nomophobia on

social phobia.

It's important to note that predicting and understanding nomophobia involves considering a range of factors beyond age, including individual habits, psychological factors, and the cultural context in which individuals live. Researchers continue to explore the complex relationships between technology use, psychological well-being, and demographic factors.

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