Narcissism As A Predictor Of Selfie Posting Behavior And Loneliness Among University Students: Moderating Role Of Perceived Social Support

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Abstract

The present study aimed to examine the moderating role of perceived social support in association with narcissism, selfie-posting behaviour, and loneliness among a convenient sample of 300 university students. The sample was further divided into two groups, male (n = 193) and female (n = 107) participants with the age range of 18 to 35 years old. Narcissistic personality inventory (Ames et al., 2006), Multidimensional perceived social support (Zimet et al., 1988), Selfitis Scale (Amjad, 2017), and UCLA Loneliness Scale (Russell et al., 1980) were used to analyze the constructs of this study. The current study's findings show a significant relationship between variables such as narcissism was positively correlated with loneliness and selfie posting behaviour, whereas it was negatively correlated with social support. Regression analysis revealed narcissism significantly predicted selfie-posting behaviour. Moderation analysis showed a significant moderation of social support between narcissism and selfie-posting behaviour. Prediction and moderation analysis showed non-significant findings with loneliness. Further limitations, suggestions and implications of the study were discussed.

Keywords: Narcissism, Selfitis, Loneliness, Social Support, family support, Friends support, Significant others.

Introduction

In this modern age of social media, selfie-posting behaviour has become popular, particularly among university students. With the rise of platforms like Instagram, Facebook, and Snapchat, individuals have become increasingly engaged in cap[1]turing and sharing images of themselves, often accompanied by self-referential captions and filters. This growing trend has developed a significant interest among researchers, leading to a rise in studies examining the factors influencing selfie-posting behaviour and its psychological consequences. Certain types of social networking site (SNS) behaviours have been found to be linked with narcissism, which refers to personality traits characterized by an inflated self-concept and a grandiose view of oneself. Individuals with narcissistic traits tend to place a lot of emphasis on enhancing their favourable self-perceptions and may not actively seek close relationships with others. They are more likely to participate in artificial interactions with others on social networking sites and use these connections to win others over and improve their perception of themselves. The design of SNSs offers narcissists the

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perfect platform with its focus on weak social links and user-controlled self-presentation. Previous studies have connected narcissism to a range of digital behaviour patterns, including how people express themselves on social media (Andreassen et al., 2017).

According to Buffardi and Campbell (2008), narcissists typically upload self-promotional content and profile images that draw attention to their beauty. They also tend to use Facebook and Instagram more frequently overall. The relationship between narcissism and how an individual presents himself on social networking sites has been repeatedly found in research by Kapidzic (2013), Mehdizadeh (2010), and others. These studies support the notion that people with higher levels of narcissism participate in more self-promotional Facebook activities. Furthermore, regardless of gender, narcissism is a strong indicator of the choice of profile photos on Facebook that highlight physical and interpersonal attractiveness.

The tendency to share selfies has also been linked to narcissism, although the role of gender needs to be taken into account. Weiser (2015) has shown a strong and favourable link between narcissism and uploading selfies. Another research has discovered experiential data connecting narcissism to male selfie-posting and selfie-editing practices (Fox & Rooney, 2015). In Poland, Sorokowski et al. (2015) research revealed gender variations in selfie behaviour and its relationship to narcissism. Although women tend to post more selfies overall, there was no evidence connecting their selfie habits to narcissism. Men's selfie habits, on the other hand, showed a significant correlation with narcissism.

It is perceived that social support, which is the idea that people may get help, care, and understanding from their social network (Wang et al., 2019), has a big impact. Their social support among university students may moderate the association between narcissism and uploading selfies online. Individuals high in narcissism may seek attention and assurance through selfie posting, especially when they perceive lower levels of social support from their peers or significant others. Existing literature suggests that social support can improve the quality of life for individuals experiencing psychological disturbances, even in the presence of medical illnesses (Hameed et al., 2022; Kazmi et al., 2023).

Selfie uploading may be a way for narcissistic people to get attention and confirmation, especially if they feel that their friends or special ones aren't giving them attention as much as they'd like. Additionally, narcissists frequently have greater requirements for love and approval, and when these needs aren't met, they may feel lonely and have unmet desires (Morf & Rhodewalt, 2002). The usage of social media is one element that might have an impact on the complicated link between narcissism and loneliness. For instance, narcissism predicts selfie-posting activity, which is connected to increased loneliness among university students (Sorokowski et al., 2020). This implies that frequently posting selfies, regarded as narcissistic behaviour, may make people feel more alone. To better understand the association between narcissism and students' selfie-posting and feelings of loneliness, the current study will emphasize the moderating role of perceived social support.

Significance of the study

The present study aims to determine how narcissism, the practice of posting selfies, and loneliness are related. It also looks at how social support affects the relationship between the predictor and the outcome variable. In this modern era, social networking websites have become popular among youth, and they connect with other users by posting selfies and pictures. People with narcissistic traits are more likely to be involved in selfie-posting behaviour. Individuals with narcissism traits are more likely to engage in frequent and attention-seeking selfie posts on social media platforms. Recent studies have provided evidence that narcissism strongly predicts involvement in the behaviour of posting selfies (Fox & Rooney, 2015; Arpaci et al., 2018). The existing study is unique in investigating the relationship between narcissism and selfie-posting behaviour among university

students. Moderating the role of social support can provide valuable insight into how lack or addition of social support influences social media activities. The current study's findings can contribute to diminishing the consequences of excessive selfie posting and loneliness.

Hypothesis:
1. Significant positive relationships would exist between narcissism, social support, loneliness and selfie-posting behaviour.
2. Narcissism would be a significant positive predictor of loneliness and selfie-posting behaviour.
3. The relationship between narcissism and selfie-posting behaviour would be moderated by social support.
4. The association between narcissism and loneliness would be moderated by social support.

Method

Research plan

The current study was based on a correlational research method, and a convenient sampling technique was used to collect the data.

Sample

The study participants were students (N = 300) from various universities in Pakistan. The sample was further divided into males (n = 193) and females (n = 107). The sample size was selected using G-Power.

Measures

Narcissistic Personality Inventory (Ames et al., 2006) was used to measure narcissism. It is a shorter form of the NPI-40 and has demonstrated strong internal consistency. Participants were persuaded to choose the statement on the scale that best describes their identification out of the 16 pairs of statements that make up the scale. The responses were added together to produce a single index with a standard deviation of 4.04 and an average score of 4.09 ($\alpha = 0.87$).

Multidimensional Perceived Social Support (Zimet et al., 1988). It is a 12-item scale specifically designed to assess social support, including family, friends and significant others. Cronbach alpha of the scale is excellent ($\alpha = .91$).

Selfitis Scale (Amana Amjad, 2017). It is used to measure the selfie disorder. It is a 5-point Likert scale, and the format of responses is from 1 = strongly disagree to 5 = strongly agree. It comprises 27 items, and the alpha reliability of this scale is .93. There is no reverse-coded item. A high score shows a high level of posting behaviour.

Revised UCLA Loneliness Scale (Russell et al., 1980). It is a 20-item questionnaire. It was constructed to assess the emotional state of social isolation. It is a 4-point Likert scale, and participants are directed to rate each item on a scale from Never to Often.

Procedure

The data was collected online through Google Forms due to the COVID-19 issue. Permission from authors was granted for using scales. The goal and nature of the study were described to the participants. They were asked for their written consent. Participants received instructions on how to fill the scales. Additionally, each questionnaire included a relevant demographic sheet attached at the top to collect the essential demographic data. Participants were thanked for their assistance and cooperation.

Results

Table 1 Psychometric Characteristics of the Scales

Scales	Items	M	SD	Range	α
Narcissistic Personality Inventory	16	23.66	3.99	18-32	.82
Multidimensional Perceived Social Support.	12	55.49	18.37	17-84	.95
Selfitis Scale	27	65.17	16.28	23-124	.87
Revised UCLA Loneliness Scale	20	50.57	11.28	22-77	.89

Note. N = 300

Table 1 shows the Cronbach alpha reliability, mean, standard deviation and range of the scales. The values of internal consistency show the excellent reliability of the scales.

Table 2 Correlation Coefficient among Study Variables

Sr. No	Variables	1	2	3	4
1	Narcissism	-	-.62**	.53**	.50**
2	Social support	-	-	-.75**	-.36**
3	Loneliness	-	-	-	.41**
4	Selfie posting	-	-	-	-

Note. N = 300
**p <. 01

Table 2 indicates the Pearson correlation among variables of the present study. The findings have shown a significant negative relationship between narcissism and social support and a positive correlation between loneliness and selfie-posting behaviour. On the other hand, social support negatively correlates with loneliness and selfie-posting behaviour. Loneliness and selfie-posting behaviour are positively correlated.

Table 3 Linear Regression Analysis Predicting Selfie-Posting Behavior and Loneliness from Narcissism

Variable	Outcome Selfie-posting behaviour			Outcome Loneliness		
	B	β	SE	B	β	SE
Constant	17.46***		4.93	15.47***		3.34
Narcissism	2.02***	.49***	.21	1.48****	.525***	.14
R^2	.24			.28		
ΔR^2	.24			.27		

Note. N = 300
***p < .001

Simple linear regression is computed with selfie-posting behaviour as an outcome variable and narcissism as the predictor variable. Table 3 shows the linear regression analysis, which revealed that narcissism significantly and positively predicts Selfie-posting behaviour (β = .49, p < .001). The R^2 value is .2, indicating a 24% variance in the dependent variable Selifie posting behaviour with {F (1, 298) = 96.39, p <.001 } and shows that narcissism is a significant positive predictor of Selifie posting behaviour. Furthermore, narcissism significantly and positively predicts loneliness (β = .52, p < .001). The R^2 value of .28

indicates a 28% variance in the dependent variable loneliness with {F (1, 298) = 113.56, p <.001} and shows that narcissism is a significant positive predictor of loneliness.

Table 4 Moderation of social support between Narcissism and Selfie-posting behaviour

| Predictors | Outcome: Selfie Posting Behavior | | | 95 % CI | |
	B	SE	p	LL	UL
Constant	-5.83	15.83	.71	-36.99	25.33
Narcissism	3.09***	.59	.000	1.93	4.26
Social support	.75*	.35	.03	.07	1.44
Narcissism × Social support	-.03*	.01	.02	-.06	-.01
R^2			.26		
F			35.`16***		

Note. N = 300, B = Unstandardized coefficient, LL = Lower limit, UL = Upper limit, CI = Confidence interval, ***p <.001, *p<.05.

Table 4 indicates the moderating role of social support in the association between narcissism and selfie-posting behaviour. The value of R^2 = .26 indicates a 26% variance that is explained by the predictor in the outcome variable with F (1, 299) = 35.16 p<.001. The results shows that narcissism (B = 3.09, p <.001), social support, (B = .75, p <.05), narcissism x social support (B = -.03, p <.05) has significant effect on selfie posting behavior. Results reveal that social support significantly and negatively moderates the relationship between narcissism and selfie-posting behaviour.

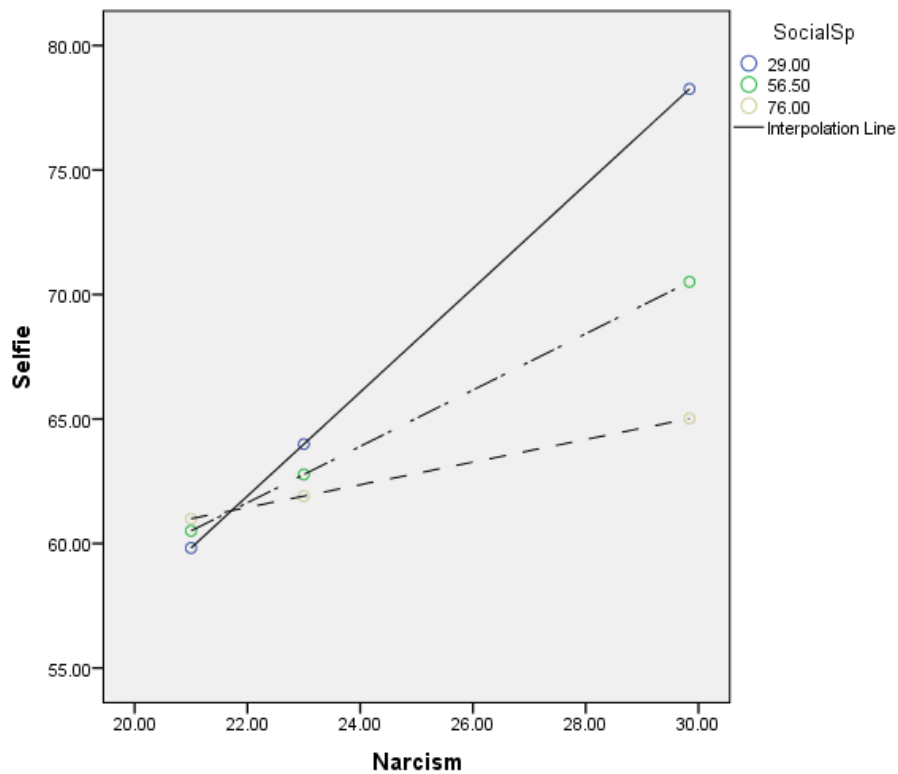**Figure 1** Mode graph of social support between narcissism and selfie posting behaviour.

Table 5 Moderation of social support between Narcissism and Loneliness

Predictors	B	SE	p	95 % CI	
				LL	UL
Constant	55.78***	8.42	.000	39.22	72.35
Narcissism	.74*	.32	.01	.12	1.36
Social support	-.12	.18	.51	-.49	.24
Narcissism × Social support	-.01	.00	.10	-.03	-.00
R²				.57	
F				128.49***	

Note. N = 300, B = Unstandardized coefficient, LL = Lower limit, UL = Upper limit, CI = Confidence interval, ***p <.00, **p<.01.

Table 5 indicates the moderating role of social support in the relationship between narcissism and loneliness; R2 = .57 indicates 57% variance explained by the predictor in the outcome variable with F (1, 299) = 128.49 p<.001. The results shows that narcissism (B = .74, p <.05), social support, (B = -.02, p >.05), Narcissism × Social support (B = --.01, p >.05) shows non-significant moderation. Social support didn't moderate the relationship between narcissism and loneliness.

Discussion

The current study provides significant insight into the relationship of narcissism, social support, selfie-posting behaviour and loneliness. The results indicate a significant correlation between the study variables (see Table 2). There is a significant positive relationship between narcissism and loneliness and selfie-posting behaviour, while all three variables have a negative relationship with social support. It has been seen that narcissistic people may experience a sense of isolation and then deal with isolation by engaging themselves on social media and posting pictures and selfies. Gąsiorowska et al. (2021) examined that narcissism was positively correlated with loneliness. In addition, past literature has also aligned with the findings of this study that there is a positive relationship between narcissism and the occurrence of using SNS (Panek et al., 2013; Ryan & Xenos, 2011).

In today's smartphone era, taking and sharing selfies on social media has become widely spread (Weiser, 2018), and narcissistic people are more likely to post them on social media. The outcomes of the current study showed that narcissism significantly and positively predicts the selfie posting behaviour. Narcissism is a multidimensional personality trait and has gained particular attention in research predicting social networking site use. Although the relationship is complex, Weiser (2015) indicated the association between narcissism and the rate of selfie-posting behaviour regarding gender, including men and women.

Furthermore, the moderating role of perceived social support cannot be ignored. The current study explores social support as a moderator between narcissism and selfie-posting behaviour. It was hypothesized that supportive family, friends and special ones protect from the negative consequences of narcissism and loneliness. The findings supported the hypothesis that social support negatively moderates the association between narcissism and the behaviour of posting selfies. The idea that people can always turn to their social network for support when needed is perceived social support (Fang, Niu, & Dong, 2021). Researchers suggest that narcissistic individuals may use social media as a tool for self-enhancement and seeking attention from social media users. The presence of a supportive social circle helps to decrease the excessive use of social media. Grove et al. (2019)

examined that narcissism is negatively correlated with social support. Narcissism is probably bad for people's interpersonal relationships and increases mental health risk. It is concluded from the literature that people with high levels of narcissistic traits often have dysfunctional interpersonal connections and, as a result, have less social support (Back et al., 2013; Wurst et al., 2017). That's why individuals share selfies on social media more than people with enough social support.

The current study's findings didn't accept the hypothesis that social support moderates the correlation between narcissism and loneliness. Throuvala et al. (2019) studied the link between narcissism, social support and loneliness among college students. The findings of this study revealed a positive relationship between narcissism and loneliness, but non-significant results were found for the moderating effect of social support. The absence of the moderating effect doesn't reduce the significance of the positive relationship between narcissism and loneliness.

In summary, researchers widely explore the link between narcissism and selfie posting, while a few researchers found the moderating role of social support. In the current study, narcissism predicted selfie-posting behaviour but didn't predict loneliness. In addition, this study also provides evidence that social support negatively moderates the relationship between narcissistic traits and selfie-posting behaviour. It is a fact that millions of people take part in social networking sites (Sorokowski et al., 2015) with different personality traits. Social networking sites have created distance between family and friends, and people, especially youth, engage themselves on smartphones and post stuff that attracts people worldwide.

Implication of the study

The current study has significant implications for understanding mental health, media use and social support. It suggests that people who frequently post selfies on social media may have narcissistic tendencies. They may need social support, counseling and psychological interventions to deal with the negative consequences of narcissism. In addition, social support is also important to buffer the negative outcomes of narcissism and loneliness. Furthermore, it allows researchers to investigate this complex relationship among different cultures and populations.

Limitations and Suggestion

The current study has several limitations to take into account.

- First of all, the cross-sectional research design was used; a cause-and-effect relationship between the variables cannot be established. Instead, it offers details on the connections between the variables examined.
- Second, no personal contact was made with participants during the data collection process, which was done online. This raises the risks of incorrect responses or misinterpretations.
- Thirdly, self-report measures were used, and respondents possibly provided survey responses based on their idealized versions of themselves rather than their actual traits, which could generate biases in the data. The best method for in-depth information is a qualitative investigation.
- Last but not least, the present study's sample size was limited, which might impact how well the findings apply to a larger population. A larger and more varied sample would be ideal for reaching more general findings.

References

Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. Journal of research in personality, 40(4), 440-450.

Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. Addictive behaviors, 64, 287-293.

Arpaci, I., Yalçın, S. B., Baloğlu, M., & Kesici, Ş. (2018). The moderating effect of gender in the relationship between narcissism and selfie-posting behavior. Personality and Individual Differences, 134, 71-74.

Back, M. D., Küfner, A. C., Dufner, M., Gerlach, T. M., Rauthmann, J. F., … Denissen, J. J. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. Journal of Personality and Social Psychology, 105(6), 1013–1037. https://doi.org/10.1037/a0034431.

Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking web sites. Personality and Social Psychology Bulletin, 34(10), 1303-1314.

Campbell, W. K., Brunell, A. B., & Finkel, E. J. (2006). Narcissism, interpersonal self-regulation, and romantic relationships: An agency model approach. In K. D. Vohs & E. J. Finkel (Eds.), Self and relationships: Connecting intrapersonal and interpersonal processes (p. 57–83). Guilford Press.

Cramer, P. (2013). Narcissism through the ages: What happens when narcissists grow older?. Journal of Research in Personality, 47(5), 541-553.

Fang, Y., Niu, Y., & Dong, Y. (2021). Exploring the relationship between narcissism and depression: The mediating roles of perceived social support and life satisfaction. Personality and Individual Differences, 173, 110604.

Fox, J., & Rooney, M. C. (2015). The Dark Triad and trait self-objectification as predictors of men" s use and self-presentation behaviors on social networking sites. Personality and Individual Differences, 76, 161-165.

Gąsiorowska, W., Sioch, M., & Żemojtel-Piotrowska, M. A. (2021). Narcissism, social support, and loneliness during the pandemic. Personality and Individual Differences, 181, 111002.

Grove, J. L., Smith, T. W., Girard, J. M., & Wright, A. G. (2019). Narcissistic admiration and rivalry: An interpersonal approach to construct validation. Journal of Personality Disorders, 33(6), 751–775. https://doi.org/10.1521/pedi_2019_33_374.

Hameed, H., Iqbal, M. N., Rafiq, M., & Javed, F. (2022). Illness Perception, Perceived Social Support and Quality of Life in Pulmonary Tuberculosis Patients. Forman J Soc Sci, 2(01), 1-28.

Kapidzic, S. (2013). Narcissism as a predictor of motivations behind Facebook profile picture selection. Cyberpsychology, Behavior, and Social Networking, 16(1), 14-19.

Kazmi, S. M. A., Murtaza, F., Hashmi, F., Iftikhar, M., Iqbal, M. N., & Nasir, A. (2023). Predictive and Protective Role of Grit, Internal Locus of Control and Social Support in Mental Health of Cardiac Patients: Protective Role of Grit, Internal Locus of Control and Social Support in Cardiac Patients. Pakistan Journal of Health Sciences, 34-42.

Mehdizadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. Cyberpsychology, behavior, and social networking, 13(4), 357-364.

Morf, C. C., & Rhodewalt, F. (2001). Unring the paradoxes of narcissism: A dynamic self-regulatory processing model. Psychological Inquiry, 12(4), 177-196.

Sorokowski, P., Sorokowska, A., Frackowiak, T., Karwowski, M., Rusicka, I., & Oleszkiewicz, A. (2020). Selfies and personality: Who posts self-portrait photographs?. Personality and Individual Differences, 154, 109645.

Panek, E.T., Nardis, Y., & Konrath, S. (2013). Mirror or megaphone? How relationships between narcissism and social networking site use differ on Facebook and Twitter. Computers in Human Behavior, 29, 2004–2012.

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: concurrent and discriminant validity evidence. Journal of personality and social psychology, 39(3), 472.

Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. Computers in Human Behavior, 27, 1658–1664

Sorokowski, P., Kowal, M., Zdybek, P., & Oleszkiewicz, A. (2020). Are online haters psychopaths? Psychological predictors of online hating behavior. Frontiers in psychology, 11, 553.

Sorokowski, P., Sorokowska, A., Frackowiak, T., Karwowski, M., Rusicka, I., & Oleszkiewicz, A. (2016). Sex differences in online selfie posting behaviors predict histrionic personality scores among men but not women. Computers in Human Behavior, 59, 368-373.

Throuvala, M. A., Griffiths, M. D., Rennoldson, M., & Kuss, D. J. (2019). Motivational processes and dysfunctional mechanisms of social media use among adolescents: A qualitative focus group study. Computers in Human Behavior, 93, 164-175.

Wang, Y., McKee, M., Torbica, A., & Stuckler, D. (2019). Systematic literature review on the spread of health-related misinformation on social media. Social science & medicine, 240, 112552.

Weiser, E. B. (2015). Narcissism and its facets as predictors of selfie-posting frequency. Personality and individual differences, 86, 477-481.

Weiser, E. B. (2018). Shameless selfie-promotion: Narcissism and its association with selfie-posting behavior. Selfies as a mode of social media and work space research, 1-27.

Wurst, S. N., Gerlach, T. M., Dufner, M., Rauthmann, J. F., Grosz, M. P., Küfner, A. C., … Back, M. D. (2017). Narcissism and romantic relationships: The differential impact of narcissistic admiration and rivalry. Journal of Personality and Social Psychology, 112 (2), 280–306. https://doi.org/10.1037/pspp0000113.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. Journal of personality assessment, 52(1), 30-41.