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Selfie-taking Behavior and Narcissistic Tendencies of College Students

¹Valerie U. Aguilo, ¹Adrian P. Gerente & ²Portia R. Marasigan

Abstract

The increasing popularity of selfies and social media made users vulnerable to excessive selfie-related behaviors. This maladaptive behavior can cause people to develop several mental disorders such as depression and body dysmorphic disorder. Thus, this study determined the relationship between selfietaking behavior and narcissistic tendencies of selected college students. Selfitis Behavior Scale (SBS) and Narcissistic Personality Inventory (NPI-13) are research instruments used to measure selfie-taking behavior and narcissistic tendencies, respectively. The descriptive-correlational research revealed that 120 college students, selected through stratified sampling technique, are more likely to engage in selfie-taking behavior which in turn, may lead to narcissistic tendencies. Respondents showed high level of selfietaking behavior and low level of narcissistic tendencies, therefore displaying 'seldom narcissistic' features. Only the frequency of selfies taken was significantly related to selfie-taking behavior. Selfietaking behavior was also significantly related to narcissistic tendencies. Thus, this study concludes that selfie-taking and narcissistic behaviors can be positive and negative, influenced primarily by the motives of selfie-taking, and cultural differences play an important role in mediating selfie-taking and narcissistic behaviors. This study suggests a deeper exploration on the narcissistic tendencies and providing more specific details on the nature, causes, classification, as well as possible diagnostic criteria of these narcissistic features.

Keywords: Selfie-taking behavior, Narcissistic Tendencies, College Students

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About the authors:

¹BS Psychology student, Laguna State Polytechnic University – San Pablo City Campus, Philippines ²Associate Professor V, Laguna State Polytechnic University – San Pablo City Campus, Philippines



1. Introduction

Selfie is now a cross-cultural phenomenon in the society whether and it is very popular especially among teenagers. Selfies gave an opportunity for instant gratification in the form of beneficial feedback, shares and likes. This has only been made possible with the rise of social media and advancement of technology which led to many cultural, social, and economic changes (Joy & Venkatachalam, 2019). A lot of people risk their lives just to take a 'perfect' selfie, which can cause concern when a person was unable to control the associated negative consequences (Verma et al., 2020). Huge portions of youth were facing the adverse and negative effects of selfie-taking behavior; worst part is, they are not aware of it, which is very alarming.

The proliferation of social media in day-to-day life has raised numerous questions about how individuals present themselves in these arenas (Barry et al., 2017). This also raised the 'influencer culture', where people follow famous public figures in social media. This paved the way for desire to seek perfection through posting selfies in social media. However, the excessive posting of selfies often reflects narcissistic tendencies, where people seek own importance and a deep need for excessive attention and admiration. The continuous popularity of selfie led to the development of selfie-taking behavior characterized by taking overabundance of photos and posting them on Instagram, Facebook, Snapchat, and other social media sites (Hagen-Miller, 2018). There were recorded cases of selfie accidents or deaths worldwide totaling 259 people died taking selfies (Bureau, 2019). The tendency of taking own pictures through smart phones has turned into an observable fact of new culture of the young generation resulting in exponential rise in narcissistic features (Kaur et al., 2018). Meanwhile, the prevalence of selfie-taking behavior accounted for 28.7% (Verma et al., 2020).

Knowledge about the psychology behind selfies and its consequences are important for individuals and the community. Selfie-taking can sometimes be inconsiderate of other people, especially when getting the perfect shot becomes very obsessive. Additionally, excessive selfies can be troublesome obsession and may be related to different personality traits such as psychopathy, narcissism, and Machiavellianism (Singh & Lippmann, 2017; Griffiths, 2018). Heavy selfie-takers and social media users are likely to be extravert (Verma et al., 2020) and narcissist (Chae, 2017). Selfies might have a self-reinforcement effect whereby people frequently take selfies in order to maintain positive view or image of themselves, which then increases their narcissism levels (Halpern et al., 2016). In addition, people with high narcissism are more likely to use selfies for self-presentation and self-promotion on social media by editing and posting

selected attractive selfies. This is because they like to gather positive responses from the public, which in turn, results to their popularity growth on social networking sites (Fox et al., 2018). This desire to gather positive responses can be an indicator of evident narcissistic tendencies.

This study gives an insight into the youth's viewpoint towards selfies and narcissism and how selfie-taking behavior becomes the mainstream of the society. It determines if selfie-taking behavior leads to narcissistic tendencies. The outcomes of this research were expected to help in designing early screening and clinical intervention policies, making plans regarding awareness programs and developing new phone features to regulate phone and selfie usage for user productivity and mental well-being.

2. Literature Review

2.1 Selfie-taking Behavior

Selfie-taking behavior is described in terms of self-presentation theory, which explains that people take selfies in order to control their self-presentation and identification and to prove they are part of an experience or event. It is applied for the purpose of impressing others (Ma et al., 2017). Functional and special options such as image orientation through landscape, portrait and panorama and usage of integrative editing have further popularized selfie-taking behavior (Fox & Rooney, 2015). In this way, users can observe their selfies as beautiful mirrored versions of themselves (Liubinienė & Keturakis, 2014). The purchase of merchandise associated with selfie-taking behavior such as selfie-sticks has displayed marked growth in recent years (Flaherty & Choi, 2016). Selfie-sticks help photographs to appear more like regular ones taken by somebody else (Dinhopl & Gretzel, 2016). However, today there was an evident decrease in its demand due to changes in the trend. With this, selfies and selfie-related behaviors such as selfie-taking are directly related to social media, since most of them are being posted on different social media platforms, and since they are a social phenomenon that begin and advance their power at social media (Katz and Crocker, 2015).

The phenomenon or trend has its consequences, particularly negatively reshaping behavior and personality. Selfie-taking behavior is an obsessive-compulsive desire to take excessive amounts of photos of one's self and post them on social media as a way to make up for their lack of self-esteem and to fill a gap in intimacy (Vandali & Biradar, 2018). It was mostly associated with low self-esteem, narcissism, loneliness and depression (Kaur & Vig, 2016). Durvasula (2016), a psychology professor, warned that selfie-taking behavior can be abnormal.

She stated that this abnormality happens when a person is almost obsessively taking selfies multiple times a day and posting those to social media platforms. She added that it is considered alarming if more than half of photos are selfies and use filters or other editing applications to make them more attractive. With this, selfie-taking goes beyond taking a photo. It also included selfie-editing, the act of manipulating and upgrading selfies through modifying its aspects such as color and contrast, altering its backgrounds and adding effects such as interactive filters before uploading it to a social media platform (Balakrishnan & Griffiths, 2018) for the desire of great physical appearance and getting positive feedback in the form of likes and reactions (Monacis et al., 2020; Katz & Crocker, 2015). Therefore, selfie-takers tend to provide a greater appeal to other people in their social media (Re et al., 2016). This selfie-editing behavior might lead to potential mental health problems and harmful online behaviors (Monacis et al., 2020).

Selfie-taking behavior has a self-reinforcement effect that can be understood as a reciprocal process that might contribute to higher levels of narcissism that users gain through the practice of selfies. This means users feel rewarded by sharing their selfies with others, increasing their levels of narcissism as well as their social media usage for selfie-taking behaviors (Halpern et al., 2016). Dr. Pamela Rutledge (2013), director of the Media Psychology Research Center, supported the negative impact of impulsive selfie-taking behavior, stating that it can be detrimental to the mental well-being of a person, and selfie-liking is a great indicator that a person can be narcissistic, attention-seeking, self-indulgent and exhibit low self-esteem. However, not all selfies have a negative impact. For instance, some have argued that selfies are a healthy form of self-exploration. Selfie-taking behavior is a self-oriented act that allows users to establish their individuality (Ehlin, 2014) and self-importance (Murray, 2015). It also helps in conveying their ideal self-concept (Yungsoo et al., 2017), keeping authenticity and boosting self-esteem (Wang et al., 2020).

A distinction between selfie-taking and selfie-posting must be established, as these comprise the term 'selfie behaviors'. Selfie-taking is mostly a private act, while selfie-posting is public with the involvement of social media (Katz and Crocker, 2015).

2.2 Narcissistic Tendencies

Narcissism was stereotypically viewed as a disorder of very high self-esteem and grandiose behavior. However, it is actually a disorder of self-esteem. People with narcissistic features often have many insecurities and established a way of self-expression to look highly

confident from the outside perspective (Durvasula, 2016). It can be pathological and fit for diagnosis of narcissistic personality disorder if both grandiose and vulnerable narcissism is concurrent, with significant impairment in daily functioning (Lancer, 2020). People with high levels of narcissism engage in frequent use of selfies. This is due to the fact that selfie-related behaviors encourage users to maximize their self-promoting and superficial behaviors (Koterba et al., 2021). Therefore, the prevalence of narcissistic individuals performing selfie-taking behavior might lead to significant rise of narcissistic tendencies among users who have some initial degree of narcissism, or possibly even inducing it in those who do not manifest it (Halpern et al., 2016).

Narcissism is also related to selfie-posting on social media, with the duration an individual spends in selfie-editing on social networking sites (Fox & Rooney, 2015). It was also revealed that individuals with high levels of narcissism tend to post more revealing selfies (DeWall et al., 2011). Other evidence suggested that narcissism is associated with more exhibitionistic or attention-seeking posts on Facebook (Carpenter, 2012). However, some people noted narcissism on a positive aspect, which contradicted the general impression on narcissism as pathological. It does not mean that having narcissistic tendencies could negatively impair an individual's way of living (Aquino & Mendoza, 2017). People need to dominate the healthy aspects of their personality instead of letting the pathological aspect dominate. This is when problems emerge (Stieg, 2019).

Having narcissistic behaviors or tendencies does not mean narcissistic personality disorder. According to the Diagnostic and Statistical Manual (DSM-5), a person must exhibit at least 55% of the most common clinical symptoms of narcissism to be clinically diagnosed with NPD. This confirms the existence of a 'healthy narcissism'. Majority of the people have narcissism without having the disorder. Healthy narcissism is a separate category of its own and is actually positive (Moore, 2020). In addition, motives that reflected body positivity and self-confidence might be misinterpreted as narcissistic. For an instance they might say, "I post selfies because I'm happy with my body and I want to show it off," but it means "I've worked hard to become happy with my body, and I want others to see that and feel empowered too." or "I'm finally happy with how I look, but I still need that validation from others" (Seidman, 2020). A study by Sukhdeep et al. (2018) discovered that the overall narcissistic score of the college students is at moderate level. 8.4% fall under the category of severe narcissistic features, 39% under moderate narcissistic features and 49% under mild narcissistic features. In addition, a

study by Bernarte et al. (2015) found low level of narcissism among their Filipino students. However, Facebook users have manifested narcissistic tendencies. In addition, person's age and social media activity have a strong correlation to narcissism.

2.3 Relationship between Selfie-taking Behavior and Narcissistic Tendencies

Various researches on selfie-related behaviors and its relation to narcissism agreed that people engage in selfie-related behaviors are highly narcissistic (Hernowo & Mashoedi, 2018; Moon et al., 2016; Sorokowski et al., 2015; Sung et al., 2016; Amurao & Castronuevo, 2016). For instance, majority of selfie-taking college students had narcissistic symptoms reflecting their selfie-posting behavior on social media had a significant relationship with their narcissistic features (Sukhdeep et al., 2018; Kaur et al., 2018). Selfie-motivating factors were also found related to narcissism (Etgar & Amichai-Hamburger, 2017). The survey of Wickel (2015) revealed that 55% of the students perceive posting selfies to various social networking platforms as means of encouraging their narcissistic behaviors. In fact, the excessive social media usage through selfie-posting was also associated with subsequent increase in narcissism by an average of 25% (Reed, 2018). In addition, Amurao and Castronuevo (2016) recorded a high average level of selfie behavior and borderline level of narcissism signifying significant relationship between selfie-liking and narcissism among students. The selfie-liking displays significant relationship with several traits observed in narcissism, such as loneliness, attention-seeking behavior and self-centered behavior (Charoensukmongkol, 2016).

Narcissism plays a role in selfie-related behaviors. For example, narcissistic individuals tend to engage in selfie-taking (Halpern et al., 2016) and selfie-posting behavior (Sung et al., 2016) to social media more than non-narcissistic ones. A study by Reyes et al. (2021) found statistically significant relationship between narcissism and selfie behavior among Filipinos belonging to Generations Y and Z, with narcissistic behaviors accounted for approximately 7.3% of selfie-related behaviors. However, some studies also suggest selfie behaviors were only associated in only one of the dimensions of narcissism: grandiose and exhibitionistic aspects of narcissism (Koterba et al., 2021). Higher levels of grandiose-exhibitionism narcissism and lower levels of self-esteem were also associated with selfie-posting (McCain et al., 2016). Narcissism, specifically the leadership/authority and grandiose exhibitionism facets, exhibit positive and significant relationship with frequency of selfie-posting (Weiser, 2015). Vulnerable narcissism

was also found to be related to selfie-posting (Barry et al., 2015) and negative effects when selfie-taking (McCain et al., 2016).

3. Methodology

The study used descriptive-correlational method through the self-assessments of select college students of their selfie-taking and narcissistic behaviors. The study used stratified sampling to select the respondents. Stratified sampling involves the division of a population into smaller subgroups or strata each with members' shared characteristics. There were 120 student-participants evenly distributed from the different colleges of on public university in the Philippines. The students were chosen based the following criteria: must be currently enrolled during the second semester 2020-2021; must have taken selfies regularly, preferably at least 3-5 times a day using any selfie applications; and must have 2-3 active social media accounts such as Facebook, Twitter, and Instagram. These criteria were determined through a pre-survey before the actual distribution of the survey questionnaire. The majority of the respondents were 19 to 21 years old (90%), female (60%), with 8,001 – 12,000 (25%) and above 24, 001 (25%) monthly income and taking selfies for entertainment (62.5%).

The study adapted two questionnaires combined to one survey tool for data gathering. The survey tool comprised the information sheet, which consists of personal and demographic profile of the respondents, Selfitis Behavior Scale (SBS), an adapted assessment based from the original work of Balakrishnan and Griffiths (2017) which assessed the level of selfie-taking behavior of the respondent, and Narcissistic Personality Inventory (NPI-13), adapted statistical tool developed by Raskin and Hall (1979) and Gentile et al. (2013) which measured the normal narcissistic features of the respondents but is not a diagnostic tool for narcissistic personality disorder.

The data gathering was done online due to current travel restrictions. The questionnaire was formatted through Google Forms and sent through Facebook Messenger accompanied by chatting with the respondent the purpose of the study and that the participation is voluntary. The study ensured that ethical principles were followed. All qualified respondents voluntarily participated in the study without any presence of coercion. Informed consent was also indicated in the online form before the questionnaires were displayed. In addition, data were only used for academic and research purposes and the identities of the respondents remained anonymous.

Data were subjected to the following statistical tools: frequency and percentage distribution, mean and Pearson-r to measure the degree of relationship between the two variables used in the study, selfie-taking behavior and narcissistic tendencies.

4. Findings and Discussion

Table 1
Level of Students' Selfie-taking Behavior

Indicator	Mean	Standard Deviation	Interpretation
1. Taking selfies gives me a good feeling to better enjoy my environment.	3.27	0.53	high
2. Sharing my selfies creates healthy competition with my friends and colleagues.	2.64	0.80	high
3. I gain enormous attention by sharing my selfies on social media.	2.64	0.79	high
4. I am able to reduce my stress level by taking selfies.	3.00	0.74	high
5. I feel confident when I take a selfie.	3.08	0.75	high
6. I gain more acceptance among my peer group when I take selfie and share it on social media.	2.78	0.78	high
7. I am able to express myself more in my environment through selfies.	3.00	0.65	high
8. Taking different selfie poses helps increase my social status.	2.53	0.82	high
9. I feel more popular when I post my selfies on social media.	2.33	0.89	low
10. Taking more selfies improves my mood and makes me feel happy.	3.03	0.71	high
11. I become more positive about myself when I take selfies.	3.13	0.67	high
12. I become a strong member of my peer group through selfie postings.	2.48	0.84	low
13. Taking selfies provides better memories about the occasion and the experience.	3.46	0.68	high
14. I post frequent selfies to get more 'likes' and comments on social media.	2.13	0.87	low
15. By posting selfies, I expect my friends to appraise me.	2.17	0.87	low
16. Taking selfies instantly modifies my mood.	2.90	0.68	high
17. I take more selfies and look at them privately to increase my confidence.	3.06	0.74	high
18. When I don't take selfies, I feel detached from my peer group.	2.03	0.97	low
19. I take selfies as trophies for future memories.	3.09	0.71	high
20. I use photo editing tools to enhance my selfie to look better than others.	2.74	0.84	high
Overall Mean	2.78	0.77	high

Legend: $3.5 - 4.0 = very \ high$, 2.5 - 3.49 = high, 1.5 - 2.49 = low, $1.0 - 1.49 = very \ low$

Table 1 shows the level of selfie-taking behavior of the respondents. Indicator 18 has the lowest mean of 2.03 and the standard deviation of 0.97, interpreted at a low level. It means that the respondents disagreed that they felt detached from their peer group when they did not post selfies. Hence, they did not depend or please their peers when posting selfies because the age

level of the respondents reached the level of maturity. They asserted self-confidence and initiative without relying on their groups. Meanwhile, indicator 13 has the highest mean of 3.46 and the standard deviation of 0.68, interpreted at a high level. It means that the respondents agreed that taking selfies provided better memories about their occasion and experience. Thus, respondents take selfies for documenting their important life experiences and events.

Overall, selfie-taking behavior of the respondents has a weighted mean of 2.78 and a standard deviation of 0.77, interpreted at a high level. This pointed out that the respondents are fond of taking and posting selfies. This results in a high selfie-taking behavior of the respondents. People, particularly Filipinos are known to be fond of taking selfies. TIME Magazine once dubbed Makati City as the "selfie capital of the world." They added that Makati produced more selfies per capita than any other city in the world. The fondness of selfie-taking was attributed to the desire to validate themselves and self-expression of this portrayal to others (Malasig, 2018).

Table 2Narcissistic Tendencies of the Students

Indicator	Mean	Standard Deviation	Verbal Interpretation
1. I find it easy to manipulate people.	1.91	0.76	seldom
2. When people compliment me I get embarrassed.	2.54	0.90	often
3. I don't mind following orders.	2.68	0.86	often
4. I usually get the respect I deserve.	2.25	0.70	seldom
5. I like to show off my body.	1.92	0.77	seldom
6. I have a strong will to power.	2.48	0.77	seldom
7. I expect a great deal from other people.	2.31	0.67	seldom
8. My body is nothing special.	2.79	0.90	often
9. People always seem to recognize my authority.	2.33	0.68	seldom
10. I will take my satisfactions as they come.	2.48	0.70	seldom
11. I will usually show off if I get the chance.	2.35	0.78	seldom
12. Leadership is a quality that takes a long time to develop.	2.02	0.79	seldom
13. I like to look at myself in the mirror.	2.93	0.89	often
Overall Mean	2.38	0.78	seldom

Legend: 3.5 - 4.0 = frequent, 2.5 - 3.49 = often, 1.5 - 2.49 = seldom, 1.0 - 1.49 = not/never

Table 2 shows the narcissistic tendencies of the respondents. Indicator 1 has the lowest mean of 1.91 and the standard deviation of 0.76, interpreted as seldom narcissistic. It means that the respondents disagreed that they found it easy to manipulate people. Awareness of people about the signs and vulnerability for possible manipulation from other people can also be an implication. Specifically, this conveyed that respondents disagreed with manipulating other

people through selfie-taking behavior by editing or changing their appearances in selfies before sharing it through social media. Meanwhile, indicator 13 has the highest mean of 2.93 and the standard deviation of 0.89, interpreted as often narcissistic. It means that the respondents agreed that they like to look at themselves in the mirror. Therefore, their liking in selfie-taking behavior caused them to constantly check themselves in the mirror to get their perfect selfie. This can be due to pressure to take selfies as pretty and perfect as what they see in social media.

Overall, the narcissistic tendencies of the respondents garnered a weighted mean of 2.38 and a standard deviation of 0.78, interpreted as seldom narcissistic. This suggests that the respondents displayed occasional and low level of narcissistic tendencies, particularly when performing selfie-taking behaviors. The results were similar to the study of Sukhdeep et al. (2018) that majority of the students have mild narcissistic features and Bernarte et al. (2015) that Filipinos displayed low level of narcissistic behaviors, also classified in a seldom level of narcissistic tendencies.

Table 3 *Test of Correlation between Profile and Selfie-taking Behavior*

Profile	<i>r</i> -value	<i>p</i> -value	Interpretation
age	0.009	0.058	not significant
sex	-0.124	0.070	not significant
college	-0.008	0.058	not significant
family monthly income	-0.110	0.069	not significant
frequency of selfies taken	0.286	0.003**	highly significant
frequency of selfies uploaded	0.165	0.072	not significant
reasons for selfie-taking	-0.048	0.062	not significant

Legend: * = significant at p < 0.05, ** = highly significant at p < 0.01, p > 0.05 = not significant

Table 3 presents the test of correlation between the profile of the respondents and their selfie-taking behavior. It shows that all factors have little to no correlation. This means that the age, sex, college, family monthly income, frequency of selfies taken, frequency of selfies uploaded and reasons for selfie-taking have little to no influence on the selfie-taking behavior of the respondents. However, it also showed that only the frequency of selfies taken is significant, which means that the sample result reflects something that is true of the population.

As to frequency of selfies taken, since p = 0.003 which is less than p = 0.05 and p = 0.01 hence, there is a highly significant relationship between frequency of selfies taken of the respondents and their selfie-taking behavior. Since it is a positive correlation with r-value of 0.286, therefore this signified that as the frequency of selfies taken by the respondents increases,

the level of selfie-taking behavior also increases. Hence, respondents of this study who have taken 9 and above selfies a day are more likely to have a higher level of selfie taking behavior than those who have taken 3-5 and 6-8 selfies a day.

Selfie-related behaviors, specifically selfie-taking behavior were positively related to frequency of selfies taken and posted in social media. This means that taking an abnormally high number of selfies is a great contributor of maladaptive selfie-related behaviors such as selfie-taking, selfie-editing and selfie-posting (Gilliland et al., 2018; Baiocco et al., 2017). Additionally, the results mean that majority of the respondents took numerous selfies and they perceived that frequency of selfies taken was an important criterion determining if a person has a selfie-taking behavior. Both notions were strengthened by Nagalingam et al. (2019), which concluded that the average number of selfies taken by the respondents was 25 per day, which was considered higher than the normal.

Motives behind selfie-taking behavior is also an important factor as to why there is a significant relationship between frequency of selfie taken and selfie-taking behavior. There are many reasons a person was engaged into selfie-taking behavior. Those motives catalyzed the person's urge or instinct to take numerous amounts of selfies a day, an essential criterion on a higher level of selfie-taking behavior. This was supported by Chaudhari et al. (2019) that motivations are 'more proximal cause of behavior', particularly selfie-taking behavior. They also added that these motives act as a mediator between selfie-related behaviors such as selfie-posting behavior and personality traits.

Table 4 *Test of Correlation between Profile and Narcissistic Tendencies*

Profile	<i>r</i> -value	<i>p</i> -value	Interpretation
age	-0.035	0.059	not significant
sex	-0.186	0.082	not significant
college	-0.041	0.062	not significant
family monthly income	-0.004	0.052	not significant
frequency of selfies taken	0.167	0.077	not significant
frequency of selfies uploaded	0.128	0.068	not significant
reasons for selfie-taking	-0.143	0.071	not significant

Legend: * = significant at p < 0.05, ** = highly significant at p < 0.01, p > 0.05 = not significant

Table 4 presents the test of correlation between the profile of the respondents and their narcissistic tendencies. It shows all factors have little to no correlation. This means that the age,

sex, college, family monthly income, frequency of selfies taken, frequency of selfies uploaded and reasons for selfie-taking have little to no influence on the narcissistic tendencies of the respondents. When tested for its significance, it showed that none of the factors are significant to narcissistic tendencies, which means that the sample result did not reflect something that is true of the population. It is because the demographic profiles of the respondents given did not have any significant effect or influence on the narcissistic tendencies of the respondents.

The results contrast numerous researches (Chopik & Grimm, 2019; Grijalva et al., 2015; Piff, 2014; Martin et al., 2016; Halpern et al. 2016; Sukhdeep et al., 2018; Wickel, 2015; Weiser, 2015; McCain et al., 2016; Koterba, 2021; Chaudhari et al., 2019) on the narcissistic tendencies. Results also indicated that the respondents have a stereotypical and negative view on narcissistic tendencies, and linked it to narcissistic personality disorder. Respondents might interpret manipulating people in a negative context such as lying or trickery, or the act of showing off as a sign of vanity. This affected the results displayed. This was supported by Sharma (2018), which asserted the importance of establishing a refreshing view on these narcissistic behaviors. The ongoing stereotype towards narcissistic people must be broken in order to build a new definition on these behaviors, with the help of the perspective of these people. The author also added that culture influenced peoples' divisive perceptions on narcissism. Back et al. (2013) also stated that narcissistic tendencies comprised a wide spectrum of characteristics much more than grandiosity, vanity and exploitative nature.

 Table 5

 Test of Correlation between Selfie-taking Behavior and Narcissistic Tendencies

<i>r</i> -value	<i>p</i> -value	Interpretation
0.422	0.004**	highly significant

Legend: * = significant at p < 0.05, ** = highly significant at p < 0.01, p > 0.05, not significant

Table 5 presents the test of correlation between selfie-taking behavior and narcissistic tendencies of the respondents. Results showed that selfie-taking behavior, with a p-value of 0.004 is less than the level of significance of p=0.05 and p=0.01. This indicated that selfie-taking behavior has a highly significant relationship with narcissistic tendencies. This means that the narcissistic tendencies of the respondents was influenced by their level of selfie-taking behavior.

Since r = 0.422, this indicated that although the frequency of taking and uploading selfies showed no significance in relation to narcissistic tendencies. Still, the results displayed that as the level of the respondents' selfie-taking behavior increases, they display more narcissistic behaviors. The results affirm the findings on statistically significant relationship between selfie-related behaviors and narcissistic traits among Filipinos (Reyes et al., 2021) and college students who performed excessive selfie-taking, selfie-editing and selfie-posting behaviors on social media have more narcissism symptoms (Veena et al., 2015; Gill, 2015; Bergman et al., 2011). Results also suggest that the influence of selfie-taking behavior and narcissistic tendencies were both positive and negative. Moreover, there is a positive effect of selfie-taking behavior on the narcissistic tendencies of the respondents based on the context of the study. They engaged in selfie-taking behavior mainly for the purpose of capturing significant life events in one's life. However, factors such as duration of selfie-taking, attention or self-consciousness and other people's feedback can turn those positive effects into negative. Eventually, those prolonged negative effects can lead into mental disorders such as narcissism.

A relevant study by Zhang et al. (2018) supported this implication citing motivations behind selfie-taking moderate the negative impact of selfie-taking behavior specifically on students. Particularly, recreational selfie-taking behavior was related to self-indulgence and selfie-editing behavior was related to impression management. In addition, the narcissistic tendencies displayed by the respondents were positive or beneficial, instead of negative or harmful as to a person's well-being. Due to evident high levels of selfie-taking behavior and its positive effects, narcissistic behaviors were also positive. Specifically, behaviors presented by the respondents were feelings of self-confidence and empowerment instead of vanity, which is an indicator of healthy narcissistic traits. The results also support Back et al. (2013) on the Narcissistic Admiration and Rivalry Concept (NARC) highlighting narcissistic admiration, grandiosity which represented the positive and self-enhancing aspect of narcissism. Furthermore, cultural differences must be taken into consideration regarding the positive and negative impacts of selfie-taking, as well as it's relation with narcissistic tendencies (Zhang et al., 2018). This is evident through harboring the Filipino trait of *pakikisama*, as it exposed in their personal and public lives, as well as their connection with their neighbors (Saito, 2010).

5. Conclusion

The study found that the college students displayed a high level of selfie-taking behavior and low level of narcissistic tendencies which is categorized under 'seldom narcissistic'. Further tests of relationship showed frequency of selfies taken has strong positive relationship to their selfie-taking behaviors while selfie-taking behavior has a strong positive relationship to the narcissistic tendencies of the respondents. Thus, this study concludes that the number of selfies taken by a person has a significant impact on the varying levels of selfie-taking behavior, the selfie-taking and narcissistic behaviors can be positive and negative, influenced primarily by the motives of selfie-taking, and cultural differences play an important role in mediating selfie-taking and narcissistic behaviors.

This study suggests a deeper exploration on the narcissistic tendencies and providing more specific details on the nature, causes, classification, as well as possible diagnostic criteria of these narcissistic features. Immediate clinical intervention policies will be possible assessing if these narcissistic tendencies were beneficial or maladaptive to the person's mental well-being. Thus, further studies can be conducted on the same nature.

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