

Social Networking and Narcissism: Unfiltering the Statistics

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PSYC 228-008



April 2020

Abstract

This study was designed to observe the levels of narcissism or narcissistic tendencies in relation to social media usage among five categories of participants. Survey data was collected from peers as well as students attending the University of South Carolina. Using a Pearson Correlation to gather social media usage, those scores were compared to responses from questions either directly pulled from or inspired by the Narcissistic Personality Inventory-16 (NPI). Additionally, two between-subjects ANOVAs were conducted: one for university class level in relation to social media usage, one for university class level in relation to narcissism scores. The results showed us that narcissism scores are higher when social media usage is higher, and this correlation is stronger in primarily one of the age categories out of the five we tested. The data derived from this study shows that a higher usage of social media is related to higher self-reported narcissistic tendencies and behaviors.

Keywords: Social media, narcissism, college

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Social networking has grown rapidly since it became accessible to virtually everybody in the early 2000's. It has grown in terms of users, popularity, opportunities, capabilities, and arguably its effect on our society and culture. It has opened countless doors for career advancement and job opportunities, as some people upload videos for a living from the comfort of their own home. Others make a living from online sponsorships and endorsements, getting paid to speak about certain products and being granted the opportunity to travel all over the world. The possibilities of what we are able to do online has truly become limitless, but perhaps the notion isn't as flawless as it seems.

There is a questionnaire that was developed by researchers in the late 1970's designed to assess one's narcissistic behaviors and tendencies. It scores users based on the answers that they provide to around 40 various questions. This questionnaire was aptly named the NPI: Narcissistic Personality Inventory. What specifically is it measuring? In Cain's article, they directly define narcissism as a personality trait that encompasses a vast array of characteristics. These range from feelings of superiority, to entitlement, to a grandiose self-concept, ultimately to a lack of empathy for others. (Cain, et al., 2008). It is not uncommon to hear people throw around the word "narcissistic", so it is important that I clarify the difference between NPD (Narcissistic Personality Disorder) and displaying narcissistic tendencies. The structure of diagnosing NPD has always been fuzzy and known to produce inconsistent results and often misdiagnoses, resulting in controversy (Aslinger, et al., 2018). Displaying narcissistic tendencies, however, encompasses factors of dimensionality that can range from person to person, culture to culture, age to age.

A study conducted in 2017 examined the relationship between addictive usage of social media and narcissism as well as self esteem. Along with the before-mentioned NPI, this study also utilized the Bergen Social Media Addiction Scale (BSMAS) and the Rosenberg Self-Esteem Scale (RSES) to record measurements of these tendencies from 23,532 Norwegians (Andreassen, et al., 2017). Their motive for conducting this research was based on the theory that narcissists are more prevalent social-media users due to their ability to conveniently collect affirmation, confirmation, and remain affiliated. Social media is essentially a candy store for people who are either narcissistic or display narcissistic tendencies, as various platforms such as Facebook, Instagram, and Tik Tok are places for expression as well as absorption. Donahue, Farley, and Singh (2018) pursued a similar experiment that hypothesized that global narcissism was “significantly correlated” with various social media behaviors. However, this experiment used selfies as one of the records of measurement. The researchers also used other more abstract methods such as perceived attractiveness of selfies and tag/like/comment behaviors to record in parallel to narcissism.

An article and experiment that I feel is most closely related with mine is that of McCain and Campbell’s (2016). Social media and its effect on narcissism (and vice versa) has been a topic of interest since social media became a regular and highly-accessible platform for nearly everybody to use. These researchers used the same variables I’m using (narcissism levels, status/tweet posts, photos-of-self/”selfies” posted, and importance of followers/friends). They ultimately found that grandiose narcissism is positively correlated with these factors, however, vulnerable narcissism wasn’t as strongly correlated. They remind us that sample sizes will

always affect these outcomes. In this case, they used meta-analyzed data from 62 samples of both published and unpublished research.

It is with little effort that you can find hundreds of articles supporting this correlation between the levels of narcissism and usage of social networking/social media sites. What makes it simple is that at the foundation of these experiments, surveys, inventories, and questionnaires lies observation. We have observed SNS (social networking sites) such as Facebook, Twitter, and Instagram slowly inundate us for many years now. Reflect on the most popular social media influencers. These people are paid for endorsing products to their large following, which they either got from their success, attractiveness, or television involvement. Think of the most popular reality TV shows, either past or present. Shows like *The Bachelor/Bachelorette*, *The Circle*, *Love Island*, *Jersey Shore*, or *Real Housewives*. It is difficult to argue that the cast members are successful because of their talents. These shows don't focus on talent (unlike *The Voice*, for example); they make their progressions on decisions based on the appearances, popularity or sociability of the contestants. This, correspondingly, feeds and grows their social media platforms, resulting in more followers, more sponsorships, more endorsements. Self-promoting behaviors are what keep these streams and incomes consistent. That observation is so heavily prevalent, it is extremely easy to retrieve the statistics and explain this cycle from a researcher's perspective.

We've discussed social media, we've discussed narcissism, multiple ways of measuring these (NPI, BSMAS, RSES), and have briefly touched on examples of the perpetual cycle that circulates into narcissistic people and their social media behaviors.

Why this subject is important to me is because of the concern for our future generations. The generations on this earth that grew up without access to social networking are diminishing day by day, and every minute, children are being born into the most technologically-advanced and arguably dependent society we have ever seen. The internet has the capacity to breed money-hungry, narcissistic individuals who gain control based on their online statistics and their generated income. What is this going to look like in 10, 20, 50 years from now? An episode of Black Mirror called “Nosedive” predicts what this future looks like. We are defined by a rating calculated from our attractiveness and popularity, and that rating is what is going to determine what apartment complexes, events, and vehicles we are “eligible” for. Though this might sound drastic, we see strands of this discrimination every day.

There are various different ways of conducting research to measure the correlation between these variables, and research is continuously being released. Though I am hypothesizing a strong correlation between social media usage and narcissism, I specifically predict that participants that spend the most time on social media applications with a high amount of content upload will self-report higher behaviors of narcissism. When looking at the age categories, I predict that the younger participants (college freshmen and sophomores) will report higher narcissism scores while older participants (categorized as “other”) will spend the most amount of time on social media/social networking sites.

Method

Participants

My participants were recruited from Facebook as well as platforms to network with other students of the University of South Carolina. I used Google Forms to create my survey. After

advertising the survey and the purpose of it online, I gathered 74 participants which consisted of 64 females and 10 males. The ages ranged from 19 to 59 years old, with the average age being 21 and 22 years old (there were 15 participants for each of those ages). 66 (89.2%) of the participants reported being White, 2 Asian, 5 Black, 5 Hispanic/Latino, and 1 Native American/Pacific Islander. As mentioned, everybody who participated in this survey had access to the link, 100% consented to the confidentiality agreement, and completed this online survey in the month of February, 2020.

Materials and Procedure

To study my predicted strong correlation between social media usage and self-reported scores designed to gauge narcissism, I carefully designed my Google Forms survey with specially chosen material that resulted in a total 53 questions (including demographics). The link can be found here: <https://forms.gle/JqOa69gpsiT7UJL8>. These questions were an almost-equal medley that gathered data on social media behaviors which included variables such as: time spent (per day) on social media, number of apps that they are regularly active on, content uploaded, amount uploaded, photo-editing behaviors, and more. Then to measure narcissistic behaviors, I drew inspiration from the NPI-16 but rather than presenting two answer options, most of mine used scales (5-point and 7-point) to allow the participant to answer as accurately as possible. I mostly used 5 and 7-points because they both allow for a median answer (3 and 5), in case the participant reports an average or indifferent response. Along with NPI-inspired questions that are scenario-based and allow the user to think subjectively, I also read up on Narcissistic Personality Disorder and designed questions based on the signs and symptoms (Grohol, 2020). Some of the questions included measuring the participant's favor of

self (their confidence or insecurity levels), assertion levels, and rating their best features with the options being both physical and personality traits. This survey took anywhere from 5-8 minutes to complete and the participants were ensured anonymity.

Looking more closely, the questions on the survey whose answer choices fell on a scale, I made sure to construct it to where answering on the lower end of the scale (towards 1 on the left-hand side) indicate non-narcissistic behaviors. A few of these answer choices include never self-promoting, never engaging in online political arguments, and immediately asking for assistance whenever running into a problem. On the contrary, rating on the higher end of the scale (towards 5 or 7 on the right-hand side) project more self-absorbed views and beliefs. Examples of these answer choices include immediately joining an online political argument, thinking of themselves as exceedingly special, and believing that their social media accounts set them apart from other people.

A few of these questions were intentionally created to gauge both variables at once. For example: “Have you ever purchased followers or subscribers, or used credits such as coins or points to obtain them?”: this question involves social media but also can be used to gauge narcissism as purchasing followers or subscribers is typically something a person does when they are trying to make themselves appear more favorable, popular, or successful than they really are. Another question asks the participant to rate from 1-7 how much they enjoy being posted onto other people’s social media pages. A narcissist would enjoy the promotion as it increases their exposure and potentially their following as well. Tags, shoutouts, duets (on Tik Tok), retweets, and shares are just a few ways that people can post others by “linking” their account handle.

To test this data and my hypothesis, I am going to start by doing a Pearson Correlation. This correlation is going to be for the sheer sake of recording the social media usage responses alongside the narcissism responses and observing if they have a strong correlation with each other. The data from the Google Form was imported to an Excel sheet, which was then transferred into SPSS.

Results

This study specifically hypothesized that participants who report spending more time on social media (based on an hours-per-day measure) will self-report higher behaviors of narcissism or behaviors indicating such. In regards to the five separate age categories, I predicted that college freshmen and sophomores will have reported higher narcissism scores in comparison to juniors, seniors, and “other”. Upon transferring the data into SPSS, I ran a Pearson Correlation to compare social media usage scores to narcissism scores among all the participants. I then conducted two between-subjects ANOVA tests. They measured class level in relation to both narcissism and social media usage. Class level is categorized as 1: college freshman, 2: sophomore, 3: junior, 4: senior, 5: other. For the ANOVA’s, the class level was the quasi-independent variable and the social media scores and narcissism scores were the dependent variables.

The Pearson Correlation was conducted to observe the relationship between social media usage ($M= 2.86$, $SD= 1.05$) and narcissism scores ($M= 3.52$, $SD= .811$). Results show a significant correlation between the two variables, $r(73)=.296$, $p<.05$. A scatterplot made to represent these variables demonstrates a positive correlation between social media usage and a

higher narcissism index (Figure 1). This supports my hypothesis that there would be a significant correlation between the two variables.

As mentioned, two between-subjects ANOVAs were completed. The first one was conducted on class level and social media usage. There appeared to be no significant effect, $F(4,65)=1.63$, $p>.05$. This means that although each class level produced different averages of reported usage, the results are not significant enough to be considered a crucial factor in the experiment. The second between-subjects ANOVA was conducted on class level and narcissism. These results appeared to be significant, $F(4,65)=4.65$, $p<.05$. A Bonferroni planned comparison was conducted to observe the differences in distinctive groups. Based on the results from this analysis, it is clear that age group one (college freshmen) significantly differed from age groups three, four, and five. Age group 1-3: $p<.05$, age group 1-4: $p<.05$, age group 1-5: $p<.05$. This supports my hypothesis that freshmen display the highest self-reported indicators of narcissism or supporting behaviors. A bar graph representing this data reveals indeed that freshmen (age group 1) have the highest narcissism scores. Following that are sophomores (group 2), seniors (group 4), others (group 5), then lastly juniors (group 4) (Figure 3). This precisely supports my hypothesis that those two age groups would surpass the others. Another bar graph representing narcissism in relation to social media usage represents a clear positive rise as app-usage increases (it is important to disregard 5, 6, and 7 on the X axis as they represent answer choices that aren't a numerical response. To specify, 5: "I don't use social media", 6: "Social media is apart of my job", 7: "Doesn't apply"). (Figure 2).

Discussion

This study was inspired by the widespread takeover of social media and the negative impact it may have on its users. Narcissistic Personality Disorder (NPD) is a disorder classified by the APA and it begins as a collection of subtle tendencies and behaviors that may now be commonly attributed to excess usage of these applications. Upon reviewing the results from this experiment, it is seen that there is a clear correlation between the amount of time people spend on applications and self-indulging beliefs and affirmations. Age group one, which is college freshmen, had the highest self-reported narcissism scores. As people spend more time on these applications, they also report higher narcissistic behaviors. Two ANOVAs were conducted. The first which represented the five class levels and their relationship with narcissism is positive, as the second, which represented five class levels and their relationship with social media, was not significant.

Because of my research supporting my initial hypothesis, it is safe to believe that all age categories are susceptible to narcissistic tendencies if they do not use social media in moderation. An excess of usage, as proven, can cause users to believe that their online profiles speak highly of who they are as people. Participants expressed that they do not want to turn to others when searching for help, and are more likely to stay quiet when struggling with personal issues. The participants who monitor their analytics and engagement consisted of 23%. Editing pictures is something that almost 60% of my participants agreed to doing. Of this, almost 11% admit to recoloring features (such as hair, skin, eyes), 5% alter their body proportions (slimming, enlarging), and 33% retouch their photos in some way. Social media agreeably increases the pressure on people to meet a certain criteria of physical appearance and social behaviors. Pressures like this can crack in two directions: on the side of brittle and exhibiting low

self-esteem, or on the pursuit of self-indulgent behaviors that are a response to the attention they may receive on these applications. Oftentimes, one is a cover-up for the other. Participants who reported high narcissistic levels also reported low ratings on view of body image or physical insecurities. These feelings are rarely taught to be dealt with properly, so “doing it for the (Insta)gram”, a popular phrase among youth, is often a way of retaliation and coping. This is precisely what Campbell and McCain were studying in their experiment. They used social media behaviors as measures which included status updates, number of friends, time spent, and pictures/“selfies” uploaded (Campbell et al., 2016). Their results were similar to mine in that there was indeed an association but it can be influenced by a number of factors, which takes me into the limitations as well as the future of this study. The limitations include credibility. My variables were all self-reported, so there is no saying how accurate they are. A person could feel guilty for spending 6+ hours a day so may report half of that. A more credible way to obtain this data is through transparent data collection. Participants can upload their “Screentime” results at the end of a week to turn in their average duration spent online (which is a pre-installed application that records your activity and time spent on your device). We can pinpoint which apps take up the majority of their time and better understand the outcome. This way, we have complete transparency and can fully rely on our data being as accurate as possible. Also, the age categories differed in size and they were predominantly female, so that could have affected my results. I would be interested to see these variables measured on different groups of people. Instead of college aged, it could be replicated on middle schoolers, adults working full-time jobs, or compared from samples on each end of the United States. Pet owners, active or retired military, Dallol residents (the hottest inhabited place on Earth) versus Oymyakon residents (the

coldest) would all be interesting ways to observe just how excess social media usage affects its users. Figuring out how the results morph around the types of participants could give us much more credible and replicable statistics that could open up doors for new studies. The future of this study is promising. I don't see a point where the link between these two variables is ever going to be ignored, as their presence increases everyday. Technology increases and becomes more depended on as we live our day-to-day lives. This experiment is a playground; it has a vast future of advancement and answers. Narcissistic Personality Disorder causes a lot of pressure on not only the individual, but on their loved ones. Understanding a contributor such as overindulgence of social networking could be ultimately what these people need to return back to normalcy and understanding that good things truly are in moderation.

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Graph

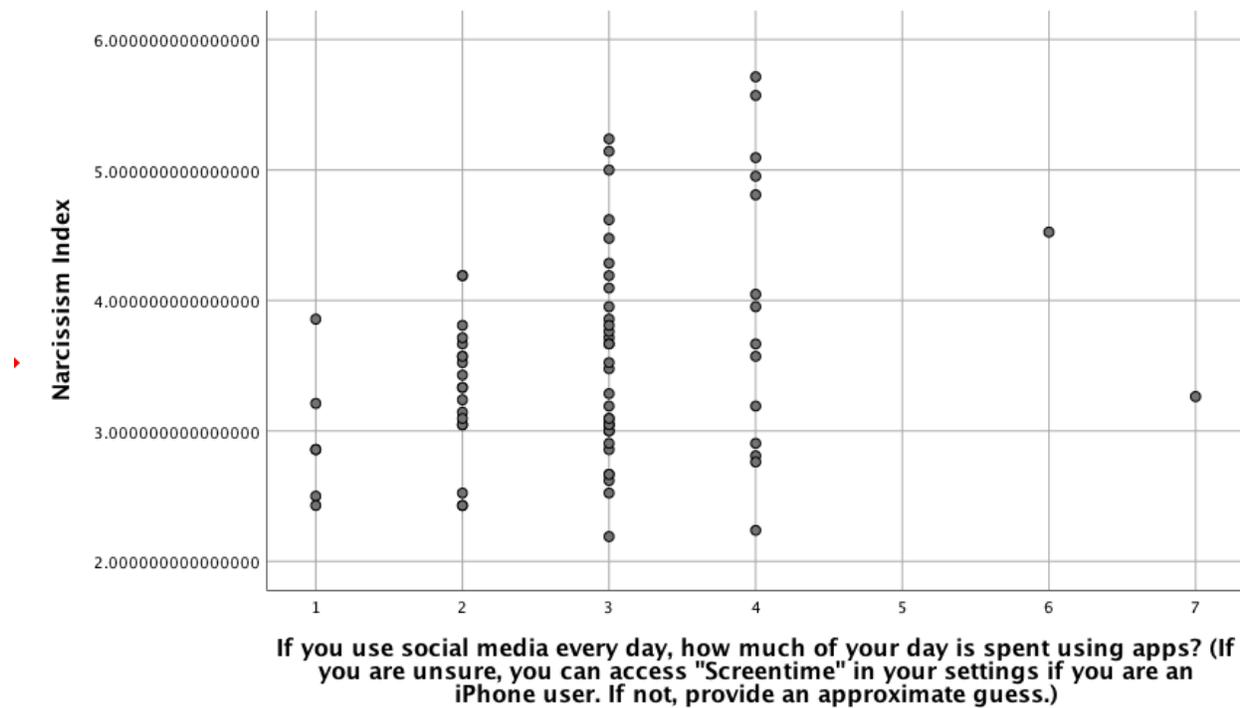


Figure 1: This scatterplot depicts the results of the Pearson Correlation that measured the narcissism and social media usage variables. The X axis numbers represent: 1: "Less than an hour per day", 2: "1-2 hours per day", 3: "3-5 hours per day", 4: "6+ hours per day", 5: "I don't use social media", 6: "Social media is apart of my job", 7: "Doesn't apply to me".

GRAPH
/BAR(SIMPLE)=MEAN(NarcissismIndex) BY ClasslevelCollege.

Graph

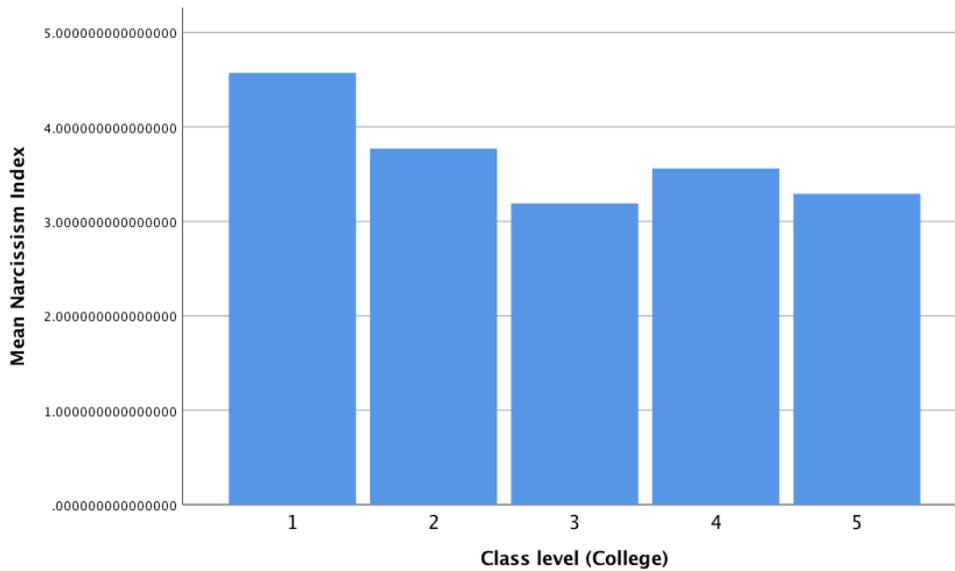


Figure 2: This graph shows class levels in relation to the average scores they received on the narcissism index (inspired by the NPI-16). Class levels represent 1: freshmen, 2: sophomore, 3: junior, 4: senior, 5: other.

GRAPH
/BAR(SIMPLE)=MEAN(NarcissismIndex) BY
IfyouusesocialmediaeverydayhowmuchofyourdayisspentusingappsIfyou.

Graph

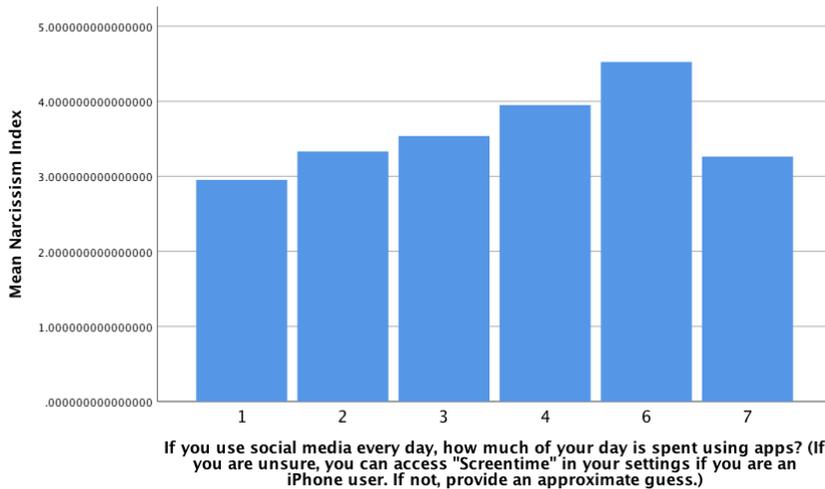


Figure 3: This graph shows usage of social media in comparison to the narcissism index scores. The X axis numbers represent: 1: "Less than an hour per day", 2: "1-2 hours per day", 3: "3-5 hours per day", 4: "6+ hours per day", 5: "I don't use social media", 6: "Social media is apart of my job", 7: "Doesn't apply to me".