Jurnal Kemanusiaan

NARCISSISM AND SOCIAL NETWORKING SITES USAGE AMONG UNIVERSITY STUDENTS

Azreen Awang Samad^a, Nor Akmar Nordin^{a*}, Haslinda Hashim^b, Siti Aisyah Panatik^a

^aSekolah Pembangunan Sumber Manusia dan Psikologi, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia

^bPusat Sains Kemanusiaan, Universiti Malaysia Pahang, 26300 Gambang Kuantan, Pahang

*Corresponding author akmar_nordin@utm.my

Received: 1st February 2022 Received in revised form: 15th May 2022 Accepted: 15th June 2022 Published: 28th June 2022

Abstract

Narcissism, a trait that is often linked to negative emotions influences the way an individual uses their social networking site. Therefore, this study aims to determine the relationship between narcissism and social networking sites usage. This study also explores the level of narcissism as well as the level of social networking sites usage among undergraduate students. The methodology for this study is a quantitative approach that uses questionnaires as an approach to collect data. A total of 101 respondents of undergraduate students were chosen through the convenience sampling method. This study utilized the Likert Narcissism Personality Inventory (NPI -L) to measure narcissism traits and Social Network Sites (SNSs) for SNS usage. The result findings for narcissism level was moderate as well as the level of SNS usage among students. Data gathered from the questionnaires was examined through Pearson Correlation analysis. The findings of this study show that there is a relatively low but significant positive relationship between narcissism and social networking sites usage among undergraduate students. Based on the results, it would benefit the university as well as future researchers to explore this issue deeper in the future.

Keywords: narcissism, social networking sites usage, undergraduate students

© 2023 Penerbit UTM Press. All rights reserved

1.0 INTRODUCTION

The era of globalization is a phenomenon that greatly affect society. Traditionally, people used to be dependent on telephone and telegraph for communication. Recent trends in the digital revolution play a significant role towards the growth of social networking sites and it has substantially changed the way people interact and express themselves (Weiser, 2001). The use of social networking sites (SNS), such as Facebook and Twitter (Alwagait et al., 2015), has increased significantly over the past few years which is proximately only 20% of Internet users that does not contribute to the SNS usage. Based on the statistics in Malaysia, in the year 2018, there were around 24.6 million people who used social media and 97.3 per cent of it came from the Facebook account which was discovered as the most preferred SNS in the country. These statistics were accompanied by an Instagram account (57.0%) followed by a YouTube account (48.3%), a Google+ account (31.3%), a Twitter account (23.8%) and a LinkedIn account (13.3%), respectively (Malaysian Communications and Multimedia Commission, 2018). Furthermore, the youth in their 20s spent about 8 hours per day going online. It indicates that most SNS users might be among university students.

The increasing usage of SNS for information sharing and the ubiquity of SNS started the interest to study the main contributor to excessive self-expression through online platforms and escalated the possibility that regular sharing of status updates could be a hint of narcissism traits (Bergman et al., 2011). Narcissism is a complex structure and has many dimensions that reflect positive and negative behaviours (Kubarych et al., 2004). On the other hand, narcissism remains one of the personality traits that has uncertainty finding which is related to good or bad behaviour. Thus, it is a requirement to examine this in detail regarding this narcissism topic.

However, research has consistently shown that most of the findings concentrated either on Facebook alone or generally on the behaviours shown towards different social networking sites (SNS). Based on Wilson et al., (2012), there are different functions for each SNS, which means the relationship between SNS usage and narcissism may represent differently on different platforms. It was observed that 82% of college students in the Western showed logging on to Facebook many times daily (Quan-Haase and Young, 2010) while most of the adolescent students preferred to fully utilize their Facebook account more commonly compared to the older students who use it to stay in contact with high school acquaintances or neighbourhood relatives (Pempek et al., 2009). In all these personality traits, narcissism plays an important but is sometimes seen as an undermined role in influencing online behaviour (Leung and Zhang, 2018). People with higher rates of narcissism seem to have more SNS acquaintances, upload more wall posts and pictures, and find SNSs more satisfying than non - narcissists do (Poon and Leung, 2011). One major issue in early research concerned as what stated that there was an obvious decline numbers in empathy and at the same time narcissism also shows that the number is increasing by about 30% which mainly comes from college students (Konrath et al., 2011). There were various studies done regarding how narcissism could lead to an increased usage of social networking sites. So far, however, there has been little discussion about SNS usage in general and much uncertainty still exists about the relationship between narcissism and SNS

usage among undergraduate students. Hence, the objective of this research is to investigate the relationship between narcissism and social networking site usage.

The research objectives are to identify the level of social networking sites (SNS) usage among undergraduate students, to analyze the level of narcissism among undergraduate students and to determine the relationship between narcissism and social networking sites (SNS) usage among undergraduate students.

2.0 RESEARCH METHODOLOGY

This study applied the descriptive and correlational study which aims to identify the relationship

between narcissism and the usage of social networking sites among undergraduate public university students. Descriptive research was used to identify the level of narcissism and analyze the level of social networking sites (SNS) usage among public university undergraduate students. On the other hand, a correlational study was conducted to determine the relationship between narcissism and SNS usage among public university undergraduate students.

Population represents the group of individuals from whom the data survey will be collected (Fielding et al., 1993). Meanwhile, the sample is a subset of the population which represents the whole population for the collected data (Acharya et al., 2013). This study employed a convenience sampling technique to gain the desired number of participants from the chosen population whereby 101 undergraduate students studying in public universities participated as the sample of this study. Convenience sampling belongs to the category of non-probability sampling techniques. The respondents are chosen based on the researcher's accessibility and respondents that are easier to approach for the study (Etikan, 2016).

The instrument that is used to identify the level of narcissism is the Likert Narcissism Personality Inventory (NPI-L) (Gentile, 2013). This instrument consists of 40 items that are related to the traits that show a narcissistic personality. Raskin & Terry (1988) introduced NPI-L, which is a modified version of NPI-40 that used a 5-point Likert scale. Next, the instruments used to identify the level of social networking si tes (SNS) usage was Social Network Sites (SNSs) usage by (Shi et al., 2014). The usage of SNS will be measured by using 13 items that contain the usage patterns of the users. The items are divided into three factors which are basic usage, interactive usage, and self-display usage. For the last section, it is mainly formed to gain the required basic information from the respondents.

Throughout this study, a set of questionnaires was administered as the research instrument to collect the data. This study will be using Statistical Package for Social Science (SPSS) to measure the result from the data collected. The descriptive statistics and Pearson correlation were implemented to analyse the level of narcissism as well as the level of social networking sites usage and measure the relationship between narcissism and social networking sites usage. The score means for the Likert Narcissism Personality Inventory (NPI-L) was divided into three high levels (1.00 to 2.33), moderate (2.34 to 3.67) and low (3.68 to 5.00). Besides, the score mean for Social Network Sites (SNSs) was also divided into three high levels (1.00 to 3.00), moderate (3.01 to 6.00) and low (6.01-7.00).

Pearson Correlation was executed to determine the relationship between the level of narcissism and social networking site usage among university students. The value range that exists in the Pearson correlation is between a negative one (-1.00) and a positive one (+1.00). The positive one (+1.00) indicates that there is a strong correlation between the two variables while the negative one (-1.00) means that there is a significant negative relationship between the two variables. However, if the value is at 0, it shows that there is no significant relationship between the two variables.

3.0 RESEARCH FINDINGS

.

Table 3.1 shows an overview of demographic analysis where most of the respondents are female students (79.2%) while male students were 20.8%. The majority of the respondents had an age range from 21 to 23 years (76.2%). In terms of the student's current year of study, most of the respondents are in their fourth year (36.6%). In terms of students' frequent device use for SNS, most of the respondents used their mobile phones for SNS usage (93.1%).

Variables	Frequency (f)	Percentage (%)
Gender	21	20.8
Male		
Female	80	79.2
Age	11	10.9
18-20		
21-23	77	76.2
24-26	13	12.9
27 and above	0	0
Year of Study	5	5.0
First-year		
Second year	25	24.8
Third year	34	33.7
Fourth-year	37	36.6
Frequent device used for SNS	6	5.9
Computer	94	93.1
Mobile phone Tablet	1	1.0

Table 3.1 Demographic of the respondents (n=101 respondents)

Narcissism traits

Table 3.2 illustrates the level of narcissism among undergraduate students by using the descriptive statistic method. It explains that the majority of the students have a moderate level of narcissism (73.3%), meanwhile, 17 per cent of students have a high level of narcissism followed by 9.9 per cent who have a low level of narcissism. It is followed by the overall mean score which is 3.07 (SD=0.59).

Ta Level of Narcissism	ble 3.2 Summary of Level of Narcis Frequency(f)	Percentage (%)
Low	10	9.9
Moderate	74	73.3
High	17	16.8

*Note: Total Average Mean Score for Narcissism (Std. Dev) = 3.07 (0.59)

Level of Social Networking Site Usage

Table 3.3 presents the breakdown of the overall mean scores based on each of the dimensions in Social Network Sites (SNSs) as well as its level. As can be seen from the table below, two dimensions showed that the students have a moderate level of SNS usage, which is the basic usage dimension and interactive usage dimension. Meanwhile, the self-display usage dimension showed that the students have a low level of SNS usage.

Table 3.4 provides the summary statistics for the level of social networking site usage based on its frequency and percentage. The table below illustrates that the majority of public university students have a moderate level of social networking site usage (80.2%), meanwhile, 16% have a low level of social networking site usage followed by 4% that have a high level of social networking sites usage.

Table 3.3: Level of Social Networking Sites Usage				
Dimension	. Overall mean score (Std. Dev)	Level		
Basic usage	4.56 (1.19)	Moderate		
Interactive usage	3.58 (0.92)	Moderate		
Self-display usage	2.80 (0.66)	Low		
Overall mean score	3.64 (0.70)	Moderate		

Table 3.4 Summary of Social Networking Sites Usage			
Level of SNS usage	Frequency (f)	Percentage (%)	
Low	16	15.8	
Moderate	81	80.2	
High	4	4.0	

Relationship between Narcissism and Social Networking Sites usage among Public University Students

The results of the correlation analysis between narcissism and social networking site usage among public university undergraduate students are presented in Table 4.5. From the data in Table 4. 5, the findings show that there is a positive significant relationship between narcissism and social networking site usage among public university students with a strong correlation value which is (r= 0.311) while i ts significant value is 0.002. This result is significant at the p = 0.01 level. Further analysis indicates that the relationship between narcissism and social networking site usage has a low relationship.

Table 4.5 Correlations between Narcissism and SNS Usage Scores				
Social networking sites usage	r	p-value		
Narcissism	0.311**	0.002		

* Correlation is significant at the .01 level

4.0 DISCUSSION

The result of this study shows that most public university undergraduate students have an intermediate level of narcissism. Therefore, the current study was consistent with several past studies which imply that the level of narcissism among university students has been increasing for the previous 10 years ((Twenge et al., 2008; Twenge and Foster, 2010; Westerman et al., 2012; Li, 2015; McCain et al., 2016; Nawaz et al., 2017; Sukhdeep, 2018).

Based on Twenge and Foster (2010), the results of their findings exposed that there is a growth number of narcissism which is 11% between the old and new generations which clarifies the reason for the spikes in narcissistic personality might be because of rapid changes in this new generation. It is also supported by Westerman et al. (2012) who suggested that the current generation has been assumed as overconfident, self-absorbed and entitled which leads to a growth level of narcissism.

It is encouraging to compare this figure with a study found by Panek et al. (2013) where they stated that in combination with personal interaction usage, narcissism is known as a tool for self-enhancement and self-promotion, keeping people from forming meaningful interpersonal relationships. This also accords with earlier research which showed that narcissistic traits serve as a channel for self-regulation in interpersonal contexts, where the motivations, relationships with others, and strategies of self-regulation interact, directing to narcissistic behaviour (Campbell et al., 2011). The one who has an intermediate level of narcissism has good self-esteem and can be competitive in a certain situation. This statement is in line with a statement from Lima et al. (2018) that indicates that normal narcissism traits in the self give a sense of self-esteem and personal valuation.

Based on the study that was conducted by Wallace & Baumeister (2002), higher levels of self-confidence and self-efficacy have been linked with greater achievement so there is strong conceptual evidence to consider the assumption that narcissism can bring success to an individual. It shows that students with moderate narcissism can turn that trait into something positive and excellent in their academics. However, these narcissism traits will bring negative impacts if someone's level of narcissism is diagnosed as high. This is because certain individuals tend to overestimate their performance and for long-term results, they will probably violate ethical rules to make sure they look better (Lima et al., 2018).

Throughout this study, this study found that the first two dimensions basic usage and interactive usage were at a moderate level while self-display usage was found at a low level of SNS usage among public university students. The results from the basic usage and interactive usage are parallel with a previous study that was conducted by Guraya (2016) that indicates that most college students used social media for general usage such as social interaction and only a few of them used it for academic-related content. Besides, the majority of college students use social networking sites because of their capability for social engagement (Pempek et al., 2009). Based on the findings, interactive usage is also at a moderate level which supports the statement by (Raacke and Bonds-Raacke, 2008) where it is stated that college students used social networking sites to gain new friends, find old friends and stay in touch with current friends. Social networking sites have an impact on youngsters in terms of communication, entertainment, language, and learning (Lenhart et al., 2010).

Therefore, the reason why most public university undergraduate students have a moderate level of social networking sites (SNS) usage might be because they use SNS as their main communication tool to interact with their friends or other people. Most of their usage is focused on interaction with other people and gaining new information and daily news.

The results showed that narcissism has a positive significant relationship with social networking sites usage among undergraduate students in public universities. Therefore, it is consistent with the previous findings which imply that there is a significantly positive relationship between narcissism and social networking sites usage (Witkin, 2014; Sorokowski et al., 2015; Moon et al., 2016; Leung and Zhang, 2018; Singh et al., 2018; Burnell et al., 2020). Furthermore, social media is one of the biggest contributors to grandiose narcissism traits and theoretically social media development is one of the main reasons that causes growth in narcissism (Twenge and Campbell, 2009).

The significant relationships found between narcissism and social networking site usage in this study pointed out that narcissism plays a crucial role in SNS usage among undergraduate students. In other words, people who have a higher level of narcissism will have a higher level of social networking sites involvement essentially as Twitter, Instagram and Facebook usage. This finding supports the previous finding which claims that narcissism was positively related to the total number of Facebook friends (Edy Susanto, 2019). Hence, SNS is one of the mediums for narcissistic regulation because, through SNS, they can control their self-presentation and manage to maintain their networking with other people (Buffardi and Campbell, 2008).

Therefore, as what has been declared and supported by past research, it is distinct that narcissism was one of the personality traits related to social networking sites usage among undergraduate students.

5.0 LIMITATIONS AND RECOMMENDATION

The findings of this result only represented undergraduate students that currently enrolled in Universiti Teknologi Malaysia. Thus, the generalizability of these findings is limited because it does not represent the whole population. Therefore, the same research conducted at another university might be different in terms of its findings.

Recommendation for University

There are some recommendations that can be offered to universities in exchange for enhancing and improving the students' focus on their academics rather than spending most of their time on social media. Thus, it is advisable for the education representative, educators, counsellors as well as public to minimize SNS usage activities among students to make sure they do not use it excessively but rather put their attention on academic and co-curriculum activities. This is because the new generation that starting to enter the workforce will probably expect special treatment, demanding others and making risky decision-making while embodying a sense of entitlement associated with narcissism. Furthermore, universities are also advised to identify other personality traits that can relate to social networking site usage or maybe other factors that can lead to the increase of narcissism traits among students.

Next, the university can proceed with research on the same topic among other students from other local universities either private or public institutions to evaluate the relationship between narcissism and social networking sites (SNS) usage. Furthermore, universities are also advised to identify other personality traits that can relate to social networking sites usage or maybe other factors that can lead to the increasing of narcissism traits among students

Recommendation for Future Researchers

Many limitations exist in this study. Therefore, some recommendations are offered for future research guidance. First of all, this study only focused on Universiti Teknologi Malaysia undergraduate students, thus, the generalizability of the findings in this study is

limited because the sample cannot represent the whole public university undergraduate students. Besides, the number of samples for this study is too small for it to generalize the whole undergraduate students in PUBLIC UNIVERSITIES.

Besides, the self-report instruments used in this study which are Social Network Sites (SNSs) used by (Shi et al., 2014) are short of comparisons with other social media questionnaires and evaluation of test-retest reliability. Additionally, this questionnaire might need more exposure to ensure that it is suitable for our country's personality traits. Besides, this study only evaluates psychological factor which is narcissism and SNS usage. For future research, it is suggested that they investigate other personality traits such Big Five personality that could relate to SNS usage.

6.0 CONCLUSION

Social media including Facebook and Twitter, has become an integral part of the lives of hundreds of millions of people around the world. However, the significance and finite elements of the link between SNS usage and narcissism remain debatable. This study's purpose is to identify the level of narcissism as well as social networking sites usage and the relationship between narcissism and social networking sites usage among public university undergraduate students. The findings of this study disclosed that most of the undergraduate students in public universities have a moderate level of narcissism and moderate level of social networking sites usage. Furthermore, this study has shown that there is a relatively low but positively significant relationship between narcissism and social networking sites usage among public university undergraduate students.

ACKNOWLEDGEMENT

This paper and the research behind it would not have been possible without the exceptional support of my supervisor, colleagues and family.

References

Achary, A. S., Prakash, A., Sax ena, P. and Nigam, A. (2013) 'Sampling: why and how of it?', Indian Journal of Medical Specialities, 4(2), pp. 3-7.

Alwagait, E., Shahzad, B. and Alim, S. (2015) 'Impact of social media usage on students academic performance in Saudi Arabia', Computers in Human Behavior.

- Bergman, S. M., Fearrington, M. E., Davenport, S. W. and Bergman, J. Z. (2011) 'Millennials, narcissism, and social networking: What narcissists do on social networking sites and why', Personality and Individual Differences.
- Błachnio, A., Przepiorka, A. and Rudnicka, P. (2016) 'Narcissism and self-esteem as predictors of dimensions of Facebook use', Personality and Individual Differences.

Burnell, K., Ackerman, R. A., Meter, D. J., Ehrenreich, S. E. and U Andrew ood, M. K. (2020) 'Self-absorbed and socially (network) engaged: Narcissistic traits and social networking site use', Journal of Research in Personality, 84.

Campbell, W. K., Hoffman, B. J., Campbell, S. M. and Marchisio, G. (2011) 'Narcissism in organizational contexts', Human Resource Management Review.

- Etikan, I. (2016) 'Comparison of Convenience Sampling and Purposive Sampling', American Journal of Theoretical and Applied Statistics. Fielding, A., Levy, P. S. and Lemeshow, S. (1993) 'Sampling of Populations: Methods and Applications.', Journal of the Royal Statistical Society. Series A (Statistics in Society).
- Forsberg, A. T. (2014) Facing the Idea That Facebook Faces Us Towards Narcissism Presented to the Faculty School of Communication and Creative Arts In Partial Fulfillment of the Requirements for the Master of Arts Communication Studies by Adam T. Forsberg.
- Freud, S. (1957) 'On Narcissism: An Introduction [1914]', Standard Edition of the Complete Psychological Works of Sigmund Freud. Vol. XIV. Gentile, B. (2013) Investigating alternative response sets with the narcissistic personality inventory: Validation of a new L Likert version. The University of Georgia.
- Gnambs, T. and Appel, M. (2018) 'Narcissism and Social Networking Behavior: A M eta-Analy sis', Journal of Personality.
- Große Deters, F., Mehl, M. R. and Eid, M. (2014) 'Narcissistic pow er poster? On the relationship between narcissism and status updating activity on Facebook', Journal of Research in Personality, 53, pp. 165–174.
- Junco, R. (2012) 'The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement', Computers and Education. Elsevier Ltd, 58(1), pp. 162–171.
- Kaplan, A. M. and Haenlein, M. (2010) 'Users of the world, unite! The challenges and opportunities of Social Media, Business Horizons. Kernberg, O. (1967) 'Borderline Personality Organization', Journal of the American Psy choanaly t ic Association.

Kohut, H. (1966) 'Forms and Transformations of Narcissism', Journal of the American Psy choanaly t ic Association.

- Konrath, S. H., O'Brien, E. H. and Hsing, C. (2011) 'Changes in dispositional empathy in American college students over time: A meta-analysis', Personality and Social Psychology Review.
- Kubary Ch, T. S., Deary, I. J. and Austin, E. J. (2004) 'The Narcissistic Personality Inventory: Factor structure in a non-clinical sample', Personality and Individual Differences.
- Leung, L. and Zhang, R. (2018) 'Narcissism and Social Media U se by Children and Adolescents', Internet Addiction in Children and Adolescents, (April 2019).
- Li, Z. (2015) 'The Analyof sis of the Influences of Students' Narcissistic Personality Traits to Negative Mentoring Ex experiences, Creative Education, 06(03), pp. 350–358.
- Lima, G. A. S. F. de, Avelino, B. C. and Cunha, J. V. A. da (2018) 'Narcissism: are accounting students using their personality traits to perform better?', Revista de Contabilidade e Organizações.
- McCain, J. L., Borg, Z. G., Rothenberg, A. H., Churillo, K. M., Weiler, P. and Campbell, W. K. (2016) 'Personality and selfies: Narcissism and the Dark Triad', Computers in Human Behavior.
- MCMC (2018) Internet users survey 2018: Statistical brief number tw enty-three, Internet users survey 2018.

- Moon, J. H., Lee, E., Lee, J. A., Choi, T. R. and Sung, Y. (2016) 'The role of narcissism in self-promotion on Instagram', Personality and Individual Differences. Elsevier Ltd, 101, pp. 22–25.
- Naw az, H., Shah, S. I. A., Mumtaz, A. and Chughtai, A. S. (2017) 'Alarming Trend of Procrastination and Narcissism Among Medi cal U undergraduates', Biomedica, 33(4), pp. 320–325.
- Oestreicher-Singer, G. and Zalmanson, L. (2013) 'Content or community ? A digital business strategy for content providers in the social age', MIS Quarterly: Management Information Systems.
- Panek, E. T., Nardis, Y. and 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(5), pp. 2004 –2012.
- Pempek, T. A., Yermolay eva, Y. A. and Calvert, S. L. (2009) 'College students' social networking experiences on Facebook', Journal of Applied Developmental Psychology.
- Poon, D. C. H. and Leung, L. (2011) 'Effects of narcissism, leisure boredom, and gratifications sought on the user-generated content among net-generation users', International Journal of Cyber Behavior, Psychology and Learning.
- Quan-Haase, A. and Young, A. L. (2010) 'Uses and Gratifications of Social Media: A Comparison of Facebook and Instant Messaging', Bulletin of Science, Technology & Society.
- Raskin, R. and Terry, H. (1988) 'A Principal-Components Analysis of the Narcissistic Personality Inventory and Further Evidence of Its Construct Validity ', Journal of Personality and Social Psychology.
- Ross, C., Orr, E. S., Sisic, M., Arseneault, J. M., Simmering, M. G. and Orr, R. R. (2009) 'Personality and motivations associated with Facebook use', Computers in Human Behavior.
- Shi, Y., Luo, Y. L. L., Yang, Z., Liu, Y. and Cai, H. (2014) 'The Development and Validation of the Social Network Sites (SNSs) U sage Questionnaire', in Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).
- Singh, S., Farley, S. D. and Donahue, J. J. (2018) 'Grandiosity on display: Social media behaviours and dimensions of narcissism', Personality and Individual Differences, 134(August 2017), pp. 308–313.
- Sorokowski, P., Sorokow ska, A., Oleszkiew Icz, A., Frackowink, T., Huk, A. and Pisanski, K. (2015) 'Selfie posting behaviours are associated with narcissism among men', Personality and Individual Differences, 85, pp. 123–127.
- Sukhdeep, K. (2018) 'Narcissistic personality and selfie-taking behaviour among college students', International Journal of Medical and Health Research International Journal of Medical and Health Research w w.medicalsciencejournal.com, 4(May).
- Tonkin, M. and Fine, H. J. (1985) 'Narcissism and borderline states: Kernberg, Kohut, and psychotherapy', Psy choanal t ic Psy c hology.
- Twenge, J. and Campbell, K. (2009) 'The Narcissism Epidemic', The narcissism epidemic: Living in the age of entitlement.
- Twenge, J. M. and Foster, J. D. (2010) 'Birth Cohort Increases in Narcissistic Personality Traits Among American College Students, 1982-2009', Social Psychological and Personality Science, 1(1), pp. 99–106.
- Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K. and Bushman, B. J. (2008) 'Further evidence of an increase in narcissism among college students', Journal of Personality, 76(4), pp. 919–928.
- Wallace, H. M. and Baumeister, R. F. (2002) 'The performance of narcissists rises and falls with perceived opportunity for glory ', Journal of Personality and Social Psychology.
- W alters, N. T. and Horton, R. (2015) 'A diary study of the influence of Facebook use on narcissism among male college students', Computers in Human Behavior, 52, pp. 326–330.
- Weiser, E. B. (2001) 'The functions of Internet use and their social and psychological consequences', Cyberpsychology and Behavior.
- Westerman, J. W., Bergman, J. Z., Bergman, S. M. and Daly, J. P. (2012a) A re universities creating millennial narcissistic employees? an empirical examination of narcissism in business students and its implications, Journal of Management Education.
- Westerman, J. W., Bergman, J. Z., Bergman, S. M. and Daly, J. P. (2012b) 'Are uni versities creating millennial narcissistic employees? an
- an empirical examination of narcissism in business students and its implications, Journal of Management Education, 36(1), pp. 5-32.
- Wilson, R. E., Gosling, S. D. and Graham, L. T. (2012) 'A Review of Facebook Research in the Social Sciences', Perspectives on Psychological Science. Witkin, N. D. (2014) 'Running head : AN EXAMINATION OF SOCIAL NETW ORK U SERS i The Role of Personality, Attachment, and Narcissism
- in Regards to Social Networking : An Examination of Social Network Users A Psy D Clinical Dissertation Proposal Presented to the Faculty of the California'.