

Selfie Behavior and Narcissism among selected Females*Amurao, Rowena Marie**Castronuevo, Eva***ABSTRACT**

This study examines the relationship between Selfie Behavior and Narcissism among selected Females. Using Descriptive Correlational, a sample of 100 female Facebook and Instagram users' ages 12 – 24 years old who have a habit of uploading 70 selfies a week were chosen to participate. Through online, the participants answered a self-administered 20 item questionnaire to measure their selfie behavior and NPI (Narcissistic Personality Inventory) to measure their narcissism. Results got a mean score of 15.01 on the selfie scale which would fall under the high average level of selfie behavior. In the NPI the respondents garnered a mean score of 16.04 which is under the category of borderline narcissism. The results of this study shows a correlation between selfie behavior and narcissism with $r = .84$ significant at $p < 0.01$, which means that there's a strong positive correlation between the selfie behavior and narcissism.

Keywords: Selfie, Narcissism, Females, Social Networking Sites, Behavior, Online Activity

Our world today is dominated by social media and recently one trend has breakout and captured the world by storm. It is the posting of a self-taken picture also known as “selfie”. According to the website techinfographics.com 50% of overall male and 52% of female population has taken a selfie. Samsung also recently found out that selfies make up 30% of photos taken by people between the ages of 18-24. (Šuk, 2014). Teenvogue.com reported that the art of the selfie have been practiced and perfected by many people in recent years and more than 31 million Instagram photos have been hash tagged #selfie (Walker, 2013), and according to a recent study from the Pew Research Center, 91 percent of teens have posted a photo of themselves online (Madden et al., 2013). On November 2013 ‘Selfie’ had been named the international word of the year by Oxford Dictionaries. Oxford Dictionary defines selfies as, “A photograph that one has taken of oneself, typically with a smartphone or webcam and uploaded to a social media website” (OxfordDictionary, 2013). The wonder of selfies has captivated the social digital world from Hollywood actors, US president Obama, and even the pope has no escape from this phenomenon.

The word “selfie” saw an astounding 17,000 percent increase in use over 2012. Here in the Philippines the citizens also have no escape in this viral trend. Just recently, the Philippine daily inquirer announced that the “winner” of the “Salita ng Taon” or (Filipino) Word of the Year for 2014 organized by various groups including the Filipinas Institute of Translation, was “selfie”. A report in Time magazine also named Makati City as the "Selfie Capital of the world" An examination of hundreds of thousands of selfies—the low-fi, self-shot photographs that are intensely popular among younger social media users—suggests that the city, part of metropolitan Manila and home to 500,000 people, produces more selfies per capita than any other city in the world. Makati City and Pasig have 258 selfie-takers per 100,000 people (Wilson, 2014).

Though it may seem that the “selfie” craze is pandemic the study about its occurrence is still mainly understudied and the effects it may have are still unknown. Considering the newness of the selfie phenomenon, a considerable body of scholarly articles and books is not available yet (Tifentale, 2014). There are many different views about this phenomenon some say that it is a mere exercise of vanity while others consider it as a way to self-exploration (Rutledge, 2013). The growing trend of taking smartphone selfies is linked to mental health conditions that focus on a person’s obsession with looks. According to psychiatrist Dr David Veal: “Two out of three of all the patients who come to see me with Body Dysmorphic Disorder since the rise of camera phones have a compulsion to repeatedly take and post selfies on social media sites.” In the case

of one nineteen-year-old man, his obsession with taking the perfect self-portrait resulted in his snapping two hundred photographs of himself every day in its quest. When his perception of perfection was found unattainable, he was driven to attempt suicide. Many have different views about this phenomenon which makes it a very interesting topic to tackle.

Several studies have examined the association between the usage of social networking sites and narcissism. "Narcissism refers to a personality trait reflecting a grandiose and inflated self-concept" (Buffardi and Campbell, 2008).

Because of the novelty of the "selfie" very few studies have been made regarding its influence on individuals. But because of its abrupt popularization many people gave out their speculation about the said trend. Many writers, psychologist, and bloggers gave out point of views about what they believe can be the impact of taking and posting of "selfies".

Narcissism

In 2008, Buffardi & Campbell examined how narcissism is manifested on a social networking site. They collected narcissistic personality self-reports from 156 undergraduate Facebook users. The Web pages of the users were coded for both objective and subjective content features. Strangers view the web pages and rate their impression of the owner on agentic traits, communal traits, and narcissism. The results show that in terms of objective criteria on the Web page, narcissism is related to a measure of Website activity derived from the number of friends and the number of wall posts (i.e., messages) posted between friends. However, it was also found that narcissism is not related to the length of self-description on the Web page. In terms of the RA coder ratings of Web page written content, narcissism is positively but only marginally related to self-promoting information about the self and quotes and negatively related to entertaining quotes. Finally, mediational analyses revealed several Web page content features that were influential in raters' narcissistic impressions of the owners, including quantity of social interaction, main photo self-promotion, and main photo attractiveness. Implications of the expression of narcissism in social networking communities are also discussed.

Similarly, Mehdizadeh (2010), also made research examining how narcissism and self-esteem are manifested on the social networking Web site Facebook.com. Self-esteem and narcissistic personality self-reports were collected from 100 Facebook users at York University. Participant Web pages were also coded based on self-promotional content features. Correlation analyses revealed that individuals higher in narcissism and lower in self-esteem were related to greater online activity as well as some self-promotional content. Gender differences were found to influence the type of self-promotional content presented by individual Facebook users.

Huling (2011) did a research examining the relationship between online self-disclosure, grandiose narcissism, vulnerable narcissism, Facebook use, and frequency of status updates in existing self-report measures among respondents of 381 college students. Positive correlations were found between vulnerable narcissism and Facebook status updates and also in Facebook use and online self-disclosure. But no correlations were found between grandiose narcissism and Facebook status updates; self-disclosure; and vulnerable narcissism and self-disclosure. It was also found that on Facebook college women did not score higher in self-disclosure than men. Additional testing also found a correlation between vulnerable narcissism and Facebook use. Based on the findings the research it did not yield all the expected results. Out of the five hypotheses, three of the hypothesis results were not significant, one hypothesis found the opposite of the predicted correlation direction to be true, with only one resulting in a correlation in the predicted direction. Results were said to be impacted due to the low reliability of the instrument since supportive hypotheses results may be suspect due to low reliability. Therefore, a more valid instrument for vulnerable narcissism should be used when measuring the correlations between narcissisms, Facebook use and self-disclosure. Results were negatively affected by the

established grandiose narcissism scale failing reliability testing, thus it was suggested that in the future, the Narcissistic Personality Inventory (NPI) should be used.

McKinney, Kelly, & Duran (2012) made a study that viewed social networking sites as a tool for communication and maintaining relationships, examining whether providing information about oneself reflects positive attitude about sharing such information with one's social network, rather than reflecting narcissism. A questionnaire was completed by 233 undergraduate students. Results indicate that attitude toward being open about sharing information about oneself was significantly related to frequency of using Facebook and twitter to provide self-focused updates. Higher levels of narcissism were associated with a larger number of Facebook friends and with the number of self-focused "tweets" an individual sends.

Recently, Alloway, Runac, Qureshi, and Kemp (2014) made a study investigating the relationship among the following in adults: use of a highly popular social networking site—Facebook, empathy, and narcissism. The findings indicated that some Facebook activities, such as chatting, were linked to aspects of empathic concern, such as higher levels of Perspective taking in males. The Photo feature in Facebook was also linked to better ability to place themselves in fictional situations. For only the females, viewing videos was associated with the extent to which they could identify with someone's distress. The data also indicated that certain aspects of Facebook use, such as the photo feature, were linked to narcissism. However, the overall pattern of findings suggests that social media is primarily a tool for staying connected, than for self-promotion.

Selfie

Taslim and Rezwan (2013) made a study that analyses selfie and its relationship with an individual's identity and existence in cyber reality. Another goal of their study is to conceptualize the extreme representation of the self as well as the detached of the self and body through selfie. Their paper, a qualitative and slightly quantitative research, studied every point critically with theoretical justification. One description of selfie that they made is that "Selfie is usually a close-up headshot in a tight framing. Some selfie captures one's head and at least a fraction of the upper part of his/her body. Some selfies are even taken with covering the whole body or a part of body to show a new clothing, or newly modified/decorated organ (six pack, bosom, nails, hairs, legs etc.) or clothing/ornaments. Exposing these particular things/organs is an attempt to create an image to the others; an image which can become an expression of self to the others". One purpose of selfie mentioned in the study is Selfie is an attempt to replicating and appropriating own image for the others which powerfully allow the subject (or the author) — consciously or unconsciously — to control / manipulate / improvise / create / operate the discourse. What could be a bigger way for a narcissist to celebrate and express their self than this?

Nguyen (2014) made a study exploring how female users identify the act of uploading selfies as an expression of external affirmation or as an act of empowerment in terms of redefining beauty standards that are reinforced in society. It also attempted to provide a foundation for understanding the selfie phenomenon and its relationship of self-worth in young women from the usage of Instagram. Nguyen utilized qualitative research method using interview questions which were open-ended and structured. The sample consisted of eleven participants. It is shown in the results of this study that the usage of Instagram to share selfies has a minimal impact on their perceived sense of self-worth. Participants demonstrated strong capability to develop a more in-depth understanding of self-awareness and what makes life meaningful for them. Nguyen mentioned in the study that the results cannot be generalized for everyone as the sample for the study is only a small portion of the population and does not fully represent all women who might use Instagram on a daily basis and have a higher number of selfies shared to their online network. The study merely provides a jumping off point for the

topic of selfies, more research should be done about selfies on a global level as it is relevant to all individuals and is a constantly evolving trend that does not seem to slow down anytime soon.

Some recent studies about selfie were made by Williams & Marquez (2015). In their study they provided a sociological analysis of selfie interpreting them as a social tool that can be used in producing and consuming racial and gender identities. They used semi-structured interviews with 40 social media users. Their research found out that women and men engage in the conspicuous presumption of experiences differently. Moreover, both White women and men have a noteworthy aversion to selfies, whereas Black and Latino women and men generally approve of selfies. And, as Williams (2014) initial research originally found, Black and Latino respondents produce selfies in much higher quantities than White selfie takers. Adding gender analysis, it was found that Black and Latino women and men may have divergent motivations in their presumption of selfies and in their acceptance of selfie taking. Concerning race, the initial study contained a more detailed discussion about selfie presumption as an act of self-defense, but it also lacks a comparison of respondents' answers and their actual posting behaviors.

Synthesis

Our world today is dominated by social media and digital interactive interface which allows us to imbed a part of ourselves in social networking sites (SNS). Due to technological innovation the internet has been able to provide us with an easier way to interact with each other and share information about ourselves through countless ways. In return SNS became the speculation of study for many researchers.

The different studies in the related literature have shown us the association of narcissism and SNS usage. The studies made by Buffardi and Campbell (2008), Mehdizadeh (2010), Huling (2011), McKinney, Kelly, & Duran (2012) all produced similar results stating that there is an association between narcissism and website activity used specifically the number of friends, wall posts, and the number of self-focused "tweets" an individual sends. Evidently their research has not tackled the "selfie" phenomenon which is today's hottest trend and that is what this research will try to unravel.

This research aims to find out if there is an association between the selfie behavior and the narcissism of an individual. The purpose of this study is to analyze the "selfie" behavior of individuals and to see if it has an association with narcissistic behavior. Since most research only tackles on narcissism and social networking sites usage the researcher wishes to concentrate specifically on selfie behavior and narcissism. The study examines the following research problems: first, what is the level of selfie behavior among respondents? Second, what is the narcissism measured among respondents? Third, is there a significant relationship between the level of selfie behavior and the narcissism measured among the respondents?

Method

Research Design

Descriptive correlational research was used in this study. The researcher measured the selfie behavior of the respondents then was correlated to narcissism, for supporting data the researcher also monitored the selfie activity of the respondents (number of posted selfies). The result of the correlation will describe the relationship of both variables.

Participants

The sampling procedure used was Purposive Sampling. There were 100 females across Facebook and Instagram ages 12-24 years old who qualified for the research. Participants had a habit of uploading about 70 selfie photos per week which was not necessarily done with one

social networking account and have spent at least 8 hours using social networking sites.

Research Instruments

The Narcissistic Personality Inventory was used to measure narcissism of the respondents. The NPI was developed by Raskin and Hall (1979) for the measurement of narcissism as a personality trait in social psychological research. It is based on the definition of narcissistic personality disorder found in the DSM-III, but is not a diagnostic tool for NPD and instead measures subclinical or normal expressions of narcissism. Because the NPI was originally based on DSM criteria for NPD, there has been much research on its factor structure. The test consists of forty pairs of statements. Cronbach's alpha for the NPI is .83 which renders high internal consistency.

The NPI measures narcissism as a continuous variable and there is no specific cut off score for which a person would be considered a clinical narcissist (Foster & Campbell, 2007). According to Raskin & Hall (1979), Raskin & Terry (1988), NPI-40 scores of 11 to 15 is generally found in normal population. NPI-40 Scores found in between 16 and 20 are said to be borderline. Those respondents who have NPI-40 score in excess of 20 are considered to be having a highly Narcissistic Personality.

The NPI is 40-item scale, each item is composed of 2 statements in which the test taker will have to choose which among the 2 statements they can identify themselves the most. The following responses are considered to be narcissistic: 1a, 2a, 3a, 4b, 5b, 6a, 7b, 8a, 9b, 10b, 11a, 12a, 13a, 14a, 15b, 16a, 17b, 18b, 19b, 20b, 21a, 22b, 23b, 24a, 25a, 26a, 27a, 28b, 29a, 30a, 31a, 32b, 33a, 34a, 35b, 36a, 37a, 38a, 39a, 40b. Each narcissistic response is worth one point. The total NPI score is the sum of narcissistic responses.

A survey questionnaire was used to determine the participants. The questionnaire is self-made by the researcher which consists of demographic questions. The Selfie Survey was used to measure the selfie behavior of the respondents. The selfie survey was designed by Pinatacan (2015), to measure selfie behavior it consists of 20 items supported by closed-ended questions answerable by "Yes" or "No". The researcher also observed the profiles or social media accounts of the respondents and kept a record of the selfie activity (number of selfies uploaded) of all respondents. The Level Category for Selfie behavior is as follows: The Scores that range from 17 - 20 is Above Average; 13 - 16 is High Average; 9 - 12 is Average; 5 - 8 is Low Average; and 0 - 4 is Below Average.

Procedures

The sampling procedure used is Non-probability sampling specifically Purposive Sampling. Respondents were selected based from the criteria that they are uploading photos not necessarily on a daily basis but are uploading about 70 photos per week.

First, the researcher, used social networking sites to search for users who uploaded about 70 selfie photos per week. The photos uploaded were quantified by the combined number of photos uploaded on Facebook and Instagram. The idea of quantifying it on a daily basis is not a reliable process because there may be days that they will not open their Facebook or their Instagram account.

Second, the researcher established a rapport by disclosing the fact that the researcher is currently doing a research and is in need of respondents then they were asked for their consent if they are willing to participate in it.

Third, those who are confirmed to be uploading about 70 photos per week and have agreed to take part in the research were given the participant selfie information sheet. Those who answered yes to all questions are the only ones chosen as a respondent.

Fourth, the respondents were given Selfie Scale and Narcissistic Personality Inventory

through online using the Google docs.

Lastly, the researcher tallied and recorded the scores of the respondents on both the Selfie Scale and the NPI and used Microsoft excel and Pearson r formula in solving for the correlation.

Data Analysis

The results of the Selfie scale and the NPI were represented using a table. Both results were tallied and recorded using Microsoft Office Excel software for windows. The statistical tool used to measure the correlation of selfie behavior and Narcissistic behavior was Pearson r.

Table 1. Frequency and Percentage distribution of female respondents

AGE	F	PERCENTAGE
12 - 13	5	5%
14 - 15	13	13%
16 - 17	27	27%
18 - 19	27	27%
20 - 21	21	21%
22 - 23	6	6%
24 - 25	1	1%
TOTAL	100	100%

Table 1 shows the frequency and percentage distribution of respondents and their corresponding ages. These were the respondents that qualified for the study. As shown in the table majority of the respondents range from the age 16 – 21 years old.

Results/Discussion

Table 2. Frequency Interval table for Selfie scale

SCORES	LEVEL	f	PERCENTAGE
17 – 20	Above Average	39	39%
13 – 16	High Average	33	33%
9 – 12	Average	25	25%
5 – 8	Low Average	3	3%
0 – 4	Below Average	0	0%

Table 2 shows the scores of the respondents on the selfie scale. As shown on the Table, 39 % of respondents scored 17 - 20 which is on the level of above average. About 33% scored 13 - 16 which is high average. 25% of the respondents scored on the average, only 3% scored on the

low average, and no respondents scored on below average. These findings suggests that majority of the respondents have scored above the normal/average which basically mean that the sample have high selfie behavior.

Table 3. Frequency Interval Table for Narcissistic Personality Inventory

SCORES	NARCISSISM	<i>f</i>	PERCENTAGE
20 – Above	High	18	18%
16 – 20	Borderline	32	32%
11 – 15	Normal	40	40%
0 – 10	Low	10	10%

Table 3 shows the scores on the narcissistic personality inventory. Evident in table 3 that 18% of the respondents scored over 20 which means high narcissistic personality, 32% scored from 16 - 20 which is said to be borderline, 40% scored from 11 - 15 which is in the range of normal, and 10% of the sample scored from 0 - 10.

Research Question 1: What is the level of selfie behavior among respondents?

Research Question 2: What is the narcissism measured among respondents?

SCALE	MEAN SCORE OF THE RESPONDENTS	LEVEL
Selfie Behavior	15.01	High Average
Narcissistic Personality Inventory	16.04	Borderline

Research Question 3: Is there a significant relationship between the level of selfie behavior and the narcissism measured among the respondents?

Results clearly show that there is a positive correlation between the 2 variables, to justify this the researcher used Pearson correlation coefficient and it was found out that there was a positive correlation between the selfie scores ($M = 15.01$, $SD = 3.43$) and NPI scores ($M = 16.04$, $SD = 4.27$), $r = 0.84$, P-Value $< .00001$, $n = 100$ significant at $p < 0.01$. The value of r which is 0.84 suggests a strong positive correlation between the variables.

The mean score of the respondents Selfie behavior is 15.01 which denotes that the selfie behavior of this sample is on the high average level. This suggests a high selfie activity meaning that most of the respondents post “selfies” frequently. In the measurement of the narcissism of the respondents the mean score in the NPI is 16.04 which are under borderline narcissism.

The result of the Pearson r which is .84 suggests a strong positive correlation indicating that there is a definite relationship between the variables. This means that there is a positive relationship between the level of selfie behavior and the measured narcissism, in which as one variable increase the other variable has the tendency to also increase. Based on the scatter plot it

can be described that there is a positive linear relationship between the 2 variables.

The findings in this study are somewhat consistent with the other studies mentioned in the related literatures although with some apparent distinctions. It was evident in the study by Buffardi and Campbell that narcissism is related to website activity which was derived from quantity of friends and wall posts, they also found that narcissism is positively but only marginally related to self-promoting information about the self. This is also the case in the study of Mehdizadeh (2010) where results show that Correlation analyses revealed that individuals higher in narcissism and lower in self-esteem were related to greater online activity as well as some self-promotional content.

In the study of Huling (2011) it was shown that positive correlations were found between vulnerable narcissism and Facebook status updates and also in Facebook use and online self-disclosure. McKinney et al., (2012) found that higher levels of narcissism were associated with a larger number of Facebook friends and with the number of self-focused "tweets" an individual sends. Also, the data in the study of Alloway et al., (2014) indicates that certain aspects of Facebook use, such as the photo feature, were linked to narcissism.

To summarize, all these studies denotes that there is a strong correlation between narcissism and the following variables: social networking website/online activity (specifically number of friends and wall posts) and self-promoting information (status updates and self-focused tweets). Selfie in particular is a website activity as justified by its oxford definition and an act of self-promotion as described by Taslim and Rezwan (2013) in their study stating that "Some selfies are even taken with covering the whole body or a part of body to show a new clothing, or newly modified/decorated organ or clothing/ornaments. Exposing these particular things/organs is an attempt to create an image to the others; an image which can become an expression of self to the others". The apparent distinction between this study and those of the past is, previous studies focuses on the association of narcissism and social networking sites, which then doesn't include selfie yet. So this study aims to focus primarily on the selfie phenomenon and its correlation with narcissism.

Conclusion and Recommendation

Based on the results of this study, the following conclusions were made. There is a positive linear correlation between selfie behavior and the narcissism among females. The findings of this research can provide information regarding the selfie phenomenon. It can also backup the results of the previous studies mentioned in the review of related literature, which states the association of Online/Website Activity and Narcissism.

Since the research method used was correlation analysis no data about causality can be given. It is not stated that selfie behavior or activity is what causes the narcissism among the female respondents or vice-versa. But given the results of this research we can conclude that there is an explicit link or a relationship between these variables. Further research is necessary in order to fully comprehend both these variables.

The researcher recommends future studies to look more into the concepts of selfie and narcissism. Other researchers also should attempt additional understanding of these variables, use different research designs and use different instruments in collecting results. The results of this research should not be generalized among the world population of females since only Filipinas comprises the respondents. It is recommendable that future studies gather more participants and include male in their study since this one only focused primarily on females.

References

- Alloway, T., Runac, R., Qureshi, M. & Kemp, G. (2014). Investigating the Relationships among Social Media Use, Empathy, and Narcissism. *Scientific Research*, 3, 150-158
- Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking Web sites. *Personality and Social Psychology bulletin*, 34, 1303-1314
- Foster, J. D., & Campbell, W. K. (2007) Are there such things as “Narcissists” in social psychology? A taxometric analysis of the Narcissistic Personality Inventory, *Personality and Individual Differences*, 43, 1321-1332. <http://dx.doi.org/10.1016/j.paid.2007.04.003>
- Huling, Bonnie Anne Boyd, "Narcissism, Facebook Use and Self Disclosure" (2011). *Theses and Dissertations*. Paper 2475.
- Madden, M., Lenhart, A., Cortesi, S., Gasser, U., Duggan, M., Smith, A., & Beaton, M. (2013). Teens, Social Media, and Privacy. Pew Research Center. Retrieved from <http://www.pewinternet.org/2013/05/21/teens-social-media-and-privacy/>
- McKinney, B., Kelly, L., & Duran, R. (2012). Narcissism or Openness?: College Students' Use of Facebook and Twitter. *Communication Research Reports*, 29 (2), 108-118
- Mehdizadeh S. (2010). Self-presentation 2.0: narcissism and self-esteem on Facebook. *Cyberpsychology, behavior and social networking*, 13 (4), 357-64
- Nguyen. M. (2014). Exploring the Selfie Phenomenon: The Idea of Self-Presentation and Its Implications Among Young Women. Retrieved from <https://dspace.smith.edu/bitstream/handle/11020/24476/NguyenAFinal.pdf?sequence=1&isAllowed=y>
- Pinatacan, S. (2015). Selfie behavior and emotional intelligence among selected Filipino women. *The Bedan Journal of Psychology*. Vol. 3, pp. 65-79
- Raskin, R.N., & Hall, C.S. (1981). The narcissistic personality inventory: Alternative form reliability and further evidence of construct validity. *Journal of Personality Assessment*, 45, 159-16.
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validation. *Journal of Personality and Social Psychology*, 54, 890-902. <http://dx.doi.org/10.1037/0022-3514.54.5.890>
- Rutledge, P. B. (July 6, 2013). Making Sense of Selfies. *Psychology Today*. Retrieved from: <http://www.psychologytoday.com/blog/positively-media/201307/making-sense-selfies>
- Self-portraits and social media: The rise of the 'selfie'*. (2013, June 6). Retrieved from <http://www.bbc.co.uk/news/magazine-22511650>
- Taslim, I. & Rezwan, Md. Z (2013). Selfie Re-de-fined: Self-(more/less). *Wizcraft Journal of Language and Literature*, Vol. II, Issue IV
- Wilson, C. (2014). The Selfiest Cities in the World: TIME's Definitive Ranking (2014, Mar 10). Retrieved from <http://time.com/selfies-cities-world-rankings/>
- Tifentale, A. (2014). The Selfie: Making sense of the “Masturbation of Self-Image” and the “Virtual Mini-Me”. Retrieved from [Selfiecity.net: http://d25rsf93iwlmgmu.cloudfront.net/downloads/Tifentale_Alise_Selfiecity.pdf](http://d25rsf93iwlmgmu.cloudfront.net/downloads/Tifentale_Alise_Selfiecity.pdf)
- Walker, M. (2013). The good, the bad, and the unexpected consequences of selfie obsession. Retrieved from <http://www.teenvogue.com/story/selfie-obsession>
- Williams, A., & Marquez, B. (2015). The Lonely Selfie King: Selfies and the Conspicuous Prosumption of Gender and Race. *International Journal of Communication*, 9, Feature 1775-1787
- Williams, A. A. (2014). Selfie love: Exploring notions of self and ethnicity on Twitter, Facebook, and Instagram. *Theorizing the Web 2014 YouTube Channel*. Retrieved from http://www.youtube.com/watch?v=bKqSeXi-0gk&list=PL01CtGIGLE3HgBlntF_87ZxZiDuvM3&index=13

- Rutledge, P. (2013). #Selfies: Narcissism or Self-Exploration? (2013, Apr 18). Retrieved from <http://www.psychologytoday.com/blog/positively-media/201304/selfies-narcissism-or-self-exploration>
- Suk, Tomislav. (2014). Selfie Infographic - "Selfiegraphic" Facts and Statistics. Retrieved from <http://techinfographics.com/selfie-infographic-selfiegraphic-facts-and-statistics/>