

SOCIAL MEDIA CURRENCY: ARE YOU SOCIAL MEDIA RICH OR POOR?

by

Merab-Areli Gomez, B.A.

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Committee Members:

Krista Howard, Chair

Kelly Haskard-Zolnierak

Jennifer Clegg-Petz

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ABSTRACT

Background: Current research findings suggest that the use of social media may have both positive and negative effects on psychosocial factors. The Instagram Social Media Currency Scale (ISMCS) was developed as a method for assessing an individual's interactions and activities on the Instagram social media platform. The term *Social Media Currency* refers to the multiple mediums of exchange and assets (likes, comments, follows etc.) holding social value that can be gained or lost through social media interaction. In this study, researchers used the ISMCS to measure social media behaviors and assessed psychological well-being.

Purpose: The purpose of this study was to provide support for the validation of the Instagram Social Media Currency Scale (ISMCS) and to explore the psychological factors most associated with high scores on the ISMCS.

Method: A sample of 522 participants ($M_{age} = 19.10$; $SD = 1.70$) were recruited to participate in an online survey in order to assess their demographic backgrounds, social media activities/behaviors, psychosocial characteristics, and mental health. Univariate analyses were conducted in order to identify differences between low, medium, and high groups on the ISMCS spectrum. A multinomial logistic regression analysis was conducted to identify the demographic and psychosocial indicators most associated with individuals with high scores on the ISMCS.

Results: Univariate comparisons of validated social media scales provided validation of the ISMCS groups, indicating that individuals with high ISMCS scores have higher social

media addiction, higher need for social media, and higher social media intensity (all $p < .001$). Results of the multivariate analysis revealed the demographic and psychosocial factors most associated with high ISMCS scores included high extraversion personality trait ($p < .001$), female gender identity ($p < .001$), non-Hispanic identity ($p = .038$), and increased frequency of upward ($p < .001$) and downward social comparisons ($p = .015$).

Conclusion: The findings in this study support validation of the ISMCS as a measure for social media behaviors and interactions. In addition, this study provided more understanding about the psychological and demographic factors linked to social media usage. Possible explanations and implications are discussed.

I. INTRODUCTION

Social Media is referred to as electronic communication through various platforms in which users have the ability to share information, ideas, personal messages, and other content (Treem, Dailey, Pierce & Biffel, 2016). Social media has been increasing dramatically in influence, usage, and scope since its early developments around the 1990s (Bennet, 2014). A recent study revealed that as of 2019, over 75% of Americans between the ages of 23 and 54 are active social media users (Pew Research Center, 2019). Within a short period of time, social media has increased networking between individuals and helped maintain social connections on a global scale (Frison & Eggermont, 2017). In the realm of research, the recency of social media presents itself as both a pro and a con. The pros are the large quantity of important variables/areas of research yet to be thoroughly examined such as mental and physical health outcomes. The con is the limited amount of existing literature available to use as a foundation for the measurement, construction, and development of future research examining social media behaviors.

Current research findings suggest that the use of social media may have both positive and negative effects on psychosocial factors such as socialization, personality, self-esteem, body image, depression, and anxiety. Considering the impact and wide use of social media, this study reviews the previously mentioned psychological factors as they relate to this electronic tool and proposes a new approach for measurement.

Reasons for Use

A recent study identified three reasons for which individuals may seek social media: initiating interaction, maintaining interaction, and information seeking (Ellison,

Steinfeld & Lampe, 2011). Initiating interaction was described as utilizing social media with the goal of meeting new people, maintaining interaction was described as keeping contact with those that are already considered close friends, and information seeking focused on discovering more information about individuals. Whether these three motives led to an offline interaction or vice versa however, was unknown to the researchers in the study. The main findings of this study suggested that there are multiple motives for which individuals use Facebook for support seeking and most importantly that online and offline interactions might be interlocking spheres rather than two separate entities. However, a limitation of this study was that these observations focused on the Facebook platform specifically. Although findings and motives for using other social media platforms vary, this study suggests that a primary reason for which individuals may be seeking social media is to receive social support.

Social Networks and Relationships

Adding to the concept of social media as a tool for socialization, a different study found that higher frequency of social media use was associated with a larger overall social network size (Sutcliffe, Binder & Dunbar, 2018). A second interesting finding of this study revealed that those who had fewer online interactions had a larger overall inner core group and reported greater satisfaction within their overall social ties. This suggests that the extent to which individuals interact online may not be entirely predictive of the perceived closeness or social proximity of those online relationships. The perceived connectedness and intimacy in relationships that occurred for those who interacted less on social media were mainly attributed to having more in-person interaction. Researchers inferred that these individuals were possibly interacting more offline and thus, did not

interact as much online. Overall, these findings suggest that although individuals use social media as a means for obtaining social support, its' effectiveness might not replace the benefits of in-person interactions.

Interactions and Feedback

In addition to social interactions, social media offers individuals the ability to personalize their accounts through various settings specifying individuals who are allowed to view the content of the account itself. The level of privacy of a social media post can influence the amount of social support or feedback provided (Liu & Wei, 2018). The study conducted by Liu and Wei (2018) focused on the amount of privacy of the social media account (private, medium, public) and the severity of the problem (mild or severe) of the support seeker in comparison to the feedback that was received. The public nature of the message and the severity of the issue were manipulated to fit each level of the study design. Participants were then asked to state their perceptions of the publicness of the post, the severity of the issue, and whether they would help or empathized with the individual behind the account. Results of this study showed that the more private the account was perceived to be, the more empathy and social support was provided by participants. The posts that were perceived as being more public had lower quality in support feedback, and the severity of the issue was perceived as less severe than those of the more private posts. This study revealed that context may also play a role in the amount of online social support received by users and the way in which perceptions of individuals differ online.

Responses to Feedback

While the previous study focused on the kind of feedback given to individuals after posting, it is important to also examine the resulting responses to the online feedback itself. A study dealing with Instagram exposed participants to positive and negative scenarios that can possibly occur while using this social media platform. An example of the positive scenarios used was “being followed by someone you know” and an example of a negative scenario was “not being followed back by someone you know.”. Findings of this study suggested that individuals with high maladaptive behaviors, such as self-criticism, had adverse responses to possible negative Instagram scenarios (Jackson & Luchner, 2017). Conversely, individuals having high levels of adaptive personality factors, such as self-efficacy, had increased positive affect to positive Instagram scenarios. Results of this study suggest that individual’s personal traits and characteristics might set predispositions for the way that social media feedback influences their mental state. This approach might imply that reasons for using social media are not solely dependent on the quantity of connections or support received, but rather the manner in which users respond to commentary coming from these various platforms.

Social Comparisons

Other recently explored socialization behaviors observed in relation to social media use have been downward and upward social comparisons. According to social comparison theory, a downward social comparison occurs when an individual compares themselves to someone whom they perceive to be worse off than they are and an upward social comparison takes place when an individual compares themselves to others who they believe are faring better than they are (Festinger, 1954). This theory proposes that

individuals get a sense of their self-worth and identity through these two specific behaviors. Current research may indicate that these social comparison behaviors not only occur during in person interactions, but also may take place while on social media sites.

Previous research found that viewing strangers' positive Instagram posts decreased positive affect for people high in social comparison orientation (de Vries, Möller, Wieringa, Eigenraam, & Hamelink, 2018). Individuals participating in social comparison behavior while online might be affected more than those who do not. Additionally, another study connected increased social media usage and increased depressive symptoms across genders to negative feelings elicited after making upward social comparisons (Steers, Wickham & Acitelli, 2014). A possible explanation for this increase in upward social comparisons specifically may be due to a positivity bias in social media content. A recent study found that social media users have a tendency to minimize their negative life events or undesirable traits while enhancing their positive traits (Lim & Yang, 2015). Furthermore, due to this positivity bias, interpersonal evaluations of individuals who enhance their life events on social media tend to be perfectionistic (Vogel & Rose, 2017). The findings of the research conducted evaluating social media and social comparison behaviors imply that social media is heavily based on self-presentation and can potentially expose users to feel the need to constantly compare themselves to others.

Personality, Self-esteem and Narcissism

Building on the implication that social media is based on self-presentation, researchers have been able to link specific online behaviors to individual's personality traits and self-esteem levels. Results in a study concerning the Big Five personality traits

and self-esteem were able to predict variations in topics of Facebook status updates using those psychological characteristics (Marshall, Lefringhausen & Ferenczi, 2015). Within the aspect of self-esteem, this study found that individuals with low self-esteem typically updated their status with posts about their romantic partners. In terms of personality, individuals who scored high on extroversion posted more frequently and their focus topic was everyday social activities. Those scoring high on openness had status updates about intellectual topics and those scoring high on conscientiousness posted status updates on their children. Lastly, those scoring high on narcissism focused their topics on personal achievements. Collectively, the results of this study reveal the connection between personality traits and the kind of information social media users present while online.

An additional variable measured in this study was the participant's own estimate of average amount of likes received on status updates. Within social media platforms, likes can be described as methods of communication indicating validation or approval of the content presented (Marshall et al., 2015). This study revealed that those high on narcissism reported to having greater numbers of likes on their updates than the other personality traits (Marshall et al., 2015). One of the possible limitations of this study, however, was that this study was based on self-report survey data in which participants indicated their past Facebook update topics. This could imply that although individuals high on narcissism generally reported a higher number of likes per update, they may not have received as many likes in actuality.

Furthering the research of narcissistic online behaviors, another study looked at variations of narcissism in comparison to selfies (photographs that one has taken of themselves posted on social media) (McCain, Borg, Rothenberg, Churillo, Weiler &

Campbell, 2016). This study focused on grandiose narcissism, also known as the more extroverted, charismatic, and attention-seeking form of narcissism. Their findings suggested that individuals with grandiose narcissistic traits were associated with taking or posting more selfies and experienced positive affect when taking selfies. Another subtype observed was vulnerable narcissism which was defined as the more neurotic and insecure form of narcissistic behavior. The findings of this section were that vulnerable narcissism had weaker connections to selfies and experienced negative affect while taking them. The amount of likes only seemed to have a positive effect on grandiose narcissistic traits and no payoff for those with vulnerable narcissistic traits. These findings were consistent with the conceptual meanings of these specific narcissistic traits. This study highlights the idea that not all personality characteristics are well suited for social media. This means that while some thrive and are enhanced by social media, others may be harmed depending on their specific personality traits.

Body Image

As previously mentioned, increased social comparisons while online might have negative effects on users and more specifically in terms of body image. In a recent study, both men and women reported a decrease in body satisfaction when social media ideal-appearance images were shown compared to the control images (Tamplin, McLean & Paxton, 2018). The study further demonstrated that women who were exposed to social media ideal-appearance images typically had greater decreases in body satisfaction when compared to male participants exposed to the social media ideal-appearance images. A key aspect of this study was that commercial-social media literacy was also observed. This term refers to the extent to which individuals use critical thinking when viewing

these images and their level of skepticism about them. Unchanged body satisfaction after viewing ideal social media images was observed when women scored high on commercial-social media literacy. There was not a similar finding for men. These findings suggest that body satisfaction might not be altered by social media exposure depending on the individual's perception of the imagery presented to them.

A similar study focusing on body image that incorporated the perception of social media posts in relation to the number of likes on the post itself, found that the more invested an individual was in likes, the greater body dissatisfaction was shown (Tiggemann, Hayden, Brown & Veldhuis, 2018). This indicates major differences in involvement of social media versus investment in social media. Involvement in social media such as frequent usage did not seem to produce lower body satisfaction but investment in the number of likes did. Those who were said to care more about likes made more social comparisons. These findings highlight level of investment as an important underlying factor that might also be contributing to how social media affects users.

Depression and Anxiety

The use of multiple social media platforms showed higher increases in depression and anxiety among individuals in past research (Primack et al., 2016). This study found that those who used 0-2 social media platforms had lower levels of depression and anxiety compared to those who were on 7-11 platforms. Findings such as these strengthen the link between excessive social media investment and adverse side-effects.

Another study examined the longitudinal relationship between social media use and depression in adolescents (Frison & Eggermont, 2017). This study showed that

during an eight-month period, adolescents with increased time in Instagram browsing at time one had increases in depressed mood at time 8 months of use. Another trend found was that those who had initial depressed mood symptoms at time one had increases in Instagram posts after the 8 months. Both findings suggest that prolonged exposure and prior mental health issues might play a role in the depressive symptoms adolescents experience after spending time online.

However, findings of a different study seem to suggest that frequency of usage in regards to social media is not associated with mental health and behavior, but rather that addictive behaviors may moderate the link (Jasso-Medrano & Lopez-Rosales, 2018). Participants with addictive behaviors towards social media were significantly more likely to report depression and suicidal ideations. This study makes a distinction between frequency of social media use and exhibiting addictive behaviors to social media. As a whole, these findings suggest that experiencing depressive symptoms or endorsing suicidal ideations might not be directly related to amount of time spent on social media rather than the addictive behaviors associated with these platforms.

A recent study aimed to identify specific social media behaviors that were most associated with depressive symptomology. This study found five key factors associated with Major Depressive Disorder (MDD) (Robinson, Bonette, Howard, Ceballos, Dailey, Lu & Grimes, 2018). MDD was characterized by persistent depressed moods during a prolonged period of time and the specific social media behaviors examined were upward social comparisons, being bothered by being tagged in un-flattering pictures, and those less likely to post pictures of themselves were said to be more likely to meet the major depressive disorder criteria. Furthermore, individuals scoring higher in social media

addiction also were more likely to meet the major depressive disorder criteria. This study supports the basis that negative responses to social media are typically a combination of addiction to social media and participation in negative social media behaviors.

Social Media Scales

With social media becoming an apparent force extending to a wide range of psychosocial factors, it is important to further assess the implications of previous research and deepen our understanding of this fairly recent development. Unlike some of the psychosocial factors listed such as personality and depression that have a vast range of valid scales available for use, there are very few social media scales for measurement. This poses a challenge for examining social media behaviors due to a scarcity of validated and reliable measures. Most scales used to measure social media behavior are either created by the researchers for the purpose of conducting the study, and others adapt items of other scales to best fit the content of the study at hand.

An example of these kinds of procedures can be found in Frison et al. (2017) in which an Instagram use questionnaire was created by the researchers on a 7-point Likert scale to measure overall Instagram use and examine its connection to depressive symptoms. Researchers created items such as “How often do you “like” a photo on Instagram?” 1 (*never*) and 7 (*several times per day*). The validity and reliability values of this newly created set of items were not addressed in the study. In addition, there were not any items included that mentioned the degree to which these negative behaviors were addictive to the participants before comparing them in terms of depression. This presents issues in which it is unknown whether the items of the questionnaire consistently tap into the specific behaviors researchers were targeting when constructing the items.

Another study adapted the Self-Presentation on Facebook Questionnaire (SPFBQ) to fit the Instagram platform instead (Michikyan, Subrahmanyam & Dennis, 2015; Jackson & Luchner, 2017). An example of these adapted items included “The way I present myself on Instagram is how I am in real life” answered on a 5-point Likert scale ranging from strongly disagree to strongly agree. Although the researchers reported acceptable reliability values for this adapted measure, it is not known whether these values were altered by the changes made by the researchers. This adaptation of other scales can often be problematic and thus create greater risk of human error and compromise the validity of the scale itself. Furthermore, considering findings of past research, it is important to not only measure social media addiction but to also examine the actual interactions occurring while online. These interactions can encompass *likes*, *comments*, *followers* and so on. Examining these in-depth factors might help in understanding why some individuals have positive experiences after using social media and why others don’t. Therefore, a widely used and psychometrically validated scale specifically designed to measure social media behaviors and interactions is necessary.

Social Media Currency Development

The Instagram Social Media Currency Scale (ISMCS) was constructed as a method of measurement that assesses an individual’s “net worth,” specifically on Instagram. In an attempt to develop this comprehensive scale, the term *Social Media Currency* was developed, which refers to the multiple mediums of exchange and assets holding social value that can be gained or lost through social media interaction. *Likes*, *comments*, and *follows* are examples of these mediums of exchange and assets. Thus, an individual’s social media currency refers to a person’s acquisition of social media wealth

through their personal accounts (a net worth of sorts). The ISMCS also aims to address the factors that previous research has found to contribute to social media user well-being. This includes number of likes, personality traits, frequency of usage, addiction, online/offline interactions, and privacy. As stated in the name, this new scale is catered specifically to the Instagram platform, which few researchers have examined. In addition to the described modes of exchange, social media currency also focuses on specific behaviors of the individual during the acquisition of social media wealth. Thus, the first section of the scale measures the metrics of an individual's Instagram account with 15 items, followed by behaviors that are measured through 5 subcategories: relevance, privacy, identity, self-esteem and health, measured with a total of 32 items.

These 5 subcategories were constructed as a result of the findings from an exploratory factor analysis conducted in a pilot study. The pilot study included an item reduction from an initial set of 64 Likert scale items and reduced it to the 32 items with the highest loadings. This process allowed for the identification of 5 subcategories (relevance, privacy, identity, self-esteem, and health), the construction of new items, and the revision of the existing ones. The relevance subcategory examined the extent to which social media was important to the participant; the privacy category examined the level to which individuals disclosed information on social media; self-esteem measured the extent to which social media influenced the participants' self-perceptions; identity measured the level to which they believed their social media account accurately represented them; and the health subcategory measured the level to which participants believed their mental and physical health were connected to their social media account.

All 5 subscales operated similarly in that higher scores in the relevance category

indicated high importance, high privacy scores indicated more information disclosed, high self-esteem scores indicated a stronger social media influence on participants' self-perceptions, high identity score meant a stronger belief that participants' social media account accurately represented them and high scores in health indicated a stronger belief that participants' health was related through their accounts. Collectively, higher scores on these 5 subscales and the 15 metric items contributed to higher ISMCS scores suggesting that these individuals had higher social media currencies. For a list of all items in the ISMCS see Table 1. In this study, the final scale ISMCS was compared to existing scales and utilized to identify the psychosocial factors associated with extreme scores.

Research Questions and Hypothesis

The primary purpose of this study was to address the scale's predictive potential for possible indications of symptoms of mental illness, maladaptive personality traits, perceived social support and self-perception by comparing this newly developed scale to existing psychosocial scales. These analytical tests were intended to provide additional support for validating the ISMCS. Due to the careful planning in the design of the ISMCS, researchers predicted that the scale would be comparable to the Bergen Social Media Addiction Scale (Andreassen, Torsheim, Brunborg & Pallesen, 2012) and the Social Media Intensity Scale (Ellison, Steinfield, & Lampe, 2007).

A secondary purpose of this study was to assess how demographic and psychological factors were most associated with values on the ISMCS. Thus, the proposed research questions were as follows: Within the social media currency spectrum, who is social media rich/poor? Of these two types of social media users, who is healthier?

Although the presence of certain connotations to words like rich and poor may

alter perceptions such that being labeled as rich might be automatically perceived as positive and being labeled as poor might be automatically be perceived as negative, the true costs/benefits to being in either group are unknown. However, based on findings from previous studies, researchers hypothesized that social media rich individuals, that is, those who scored high on the scale, would not be as healthy as those who scored in the lower range of the social media currency continuum. This was inferred to be due to the social media rich individuals becoming too dependent on social media leading to a detrimental effect. According to these predictions, being considered social media rich could possibly come at certain costs and not necessarily translate to being better than those scoring in the lower ranges. This prediction was tested after completing the ISMCS comparison to other existing scales and screening reliability values.

II. METHOD

Participants

A total of 522 participants were recruited from a large university in central Texas. Participation was limited to participants that were 18 years of age or older and as a requirement had to have an active personal Instagram account. The mean age of the sample was 19.10 years ($SD= 1.70$). All participants were compensated for their participation with course credit from the courses from which they were recruited from. This study was approved by the Institutional Review Board at Texas State University.

Measures and Procedure

Participants completed an anonymous online survey available on computers or mobile devices. Upon providing informed consent and meeting the recruitment criteria, participants were first asked to complete the primary scale of focus, the Instagram Social Media Currency Scale (ISMCS). The subsequent sections of the survey included the following existing social media scales: the Bergen Social Media Addiction Scale, Social Media Intensity Scale, and the Need for Participating in Social Media Scale. Once all social media related scales were completed, participants were then asked to complete some psychosocial scales and items including the Perceived Social Stress Scale, Interpersonal Support Evaluation List, Patient Health Questionnaire, Rosenberg Self-Esteem Scale, Body Image, Big 5 Personality Scale, and the Life Satisfaction Scale. Finally, at the end of the survey, participants provided their responses to a brief set of demographic questions.

Instagram Social Media Currency Scale

The Instagram Social Media Currency Scale (ISMCS) was created by the researcher catered specifically to the Instagram platform. This scale measures the metrics pertaining to the participant's active Instagram account by using 15 items in which responses are limited to only quantifiable numerical values. The Instagram metrics included items such as "How many likes must you get on a picture on Instagram to prevent you from deleting it?" and "What is your follower count on Instagram?"

In addition to the metrics, the ISMCS measures social media behaviors in 5 subcategories listing specific statements. The relevance category measured the level of impact the participant allows for social media to have in their life through the use of 12 items. The statements included in this subcategory were on a 5-point Likert scale based on importance for the first 6 statements (1 = *not at all important*, 2 = *slightly important*, 3 = *moderately important*, 4 = *very important*, 5 = *extremely important*) and based on how well participants felt the statements described their behavior for the remaining 6 statements (1 = *does not describe me well*, 2 = *describes me slightly well*, 3 = *describes me moderately well*, 4 = *describes me very well*, 5 = *describes me extremely well*). Statements in this section included "My follower count is important to me" and "It is important for me to be tagged in every picture I am in."

The privacy subcategory measured the level to which the participant discloses private information about themselves through the use of 9 items. These items were based on how well participants felt the statements described them on a 5-point Likert scale (1 = *does not describe me well*, 2 = *describes me slightly well*, 3 = *describes me moderately well*, 4 = *describes me very well*, 5 = *describes me extremely well*). Statements in this

section included “I have my account on private the majority of the time” and “I have shared my location through Instagram.”

The identity category measured how much of the individual’s identity is perceived through their Instagram account using 5 items. The 5 statements included in this subcategory were based on level of agreement to them through a 5-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*). Statements in this section include “People can get a sense of my personality from looking at my Instagram account” and “If someone likes me on Instagram, they will also like me in person.”

The self-esteem category measured how much participants’ perception of themselves is connected to their Instagram account using 6 items. The statements included in this subcategory were based on level of agreement to the statement on a 5-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*). Statements in this section include “I feel attractive when I get likes on pictures of myself” and “I wish I looked like the Instagram famous people I follow.”

Finally, the category of health measured the level to which a participant’s overall health (mental and physical) was reflected through their social media account with the use of 7 items. The statements included in this subcategory were based on a 5-point Likert scale (1 = *does not describe me well*, 2 = *describes me slightly well*, 3 = *describes me moderately well*, 4 = *describes me very well*, 5 = *describes me extremely well*). Statements in this section include “I have posted about my healthy meals or healthy eating habits” and “I have followed or currently follow positivity pages on Instagram.”

ISMCS Reliability and Correlational Values

In addition, researchers included 5 slider scale items for each of the scale's 5 subgroups. These slider scale items presented a single statement to the participant for which they responded from a range of 0 to 100 and were included as an additional validation tool. For the relevant items, participants were asked to indicate how important Instagram is to them (0 = *not important*; 100 = *extremely important*). The privacy slider item asked participants to indicate the degree to which they shared information about their personal life on Instagram (0 = *not shared at all*; 100 = *entirely shared*). The identity category slider item asked participants to indicate the extent to which their Instagram account accurately represent who they are as a person using the slider (0 = *not representative*; 100 = *extremely representative*). The self-esteem slider item asked participants to indicate the extent to which Instagram influences their feelings about themselves (0 = *no influence*; 100 = *extremely influential*). Lastly, the health slider item asked participants to indicate the extent to which their Instagram account is connected to their overall mental and physical health (0 = *not connected*; 100 = *extremely connected*). Bivariate correlational values between the Likert items and their respective slider items were all statistically significant (relevance= .55; privacy= .35; identity= .56; self-esteem= .63; and health= .49) supporting validity in the ISMCS. Additionally, the ISMCS ($M = 4.66$, $SD = .59$) achieved an alpha reliability of .87.

Bergen Social Media Addiction Scale

The Bergen Social Media Addiction Scale (Andreassen, Torsheim, Brunborg & Pallesen, 2012) was used for assessing overall social media addiction. This scale evaluates how often participants report negative life experiences or responses due to

social media usage. Participants are asked to respond to 6 statements such as, “How often during the last year have you tried to cut down the use of social media without success?” based on a 5-point Likert scale (1= *very rarely*; 5= *very often*). For this sample, the Bergen Social Media Addiction Scale ($M = 2.66$, $SD = .90$) achieved an alpha reliability of .83.

Social Media Intensity

The Social Media Intensity Scale (Ellison, Steinfield & Lampe, 2007) was used to assess the intensity of social media use for the Instagram platform. This measure included 13 statements answered on a 5-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*). Examples include, “Instagram has become a daily part of my routine.” For this sample, the Social Media Intensity Scale ($M = 3.27$, $SD = .97$) achieved an alpha reliability of .87.

Need for Participating in Social Media

The Need for Participating in Social Media Scale (Park, Kee & Valenzuela, 2009) was utilized for identifying the motivational factors behind usage of social media platforms. Such motivational factors within this scale are labelled as “socialization,” “entertainment,” “self-status seeking,” and “information seeking.” Participants indicated their level of agreement on a 6-point Likert scale ranging from (1= *strongly disagree* to 6 = *strongly agree*) for a total of 12 items. These items included statements such as “I use social media to get peer support from others.” For this sample, the Need for Social Media ($M = 3.77$, $SD = .92$) achieved an alpha reliability of .85.

Social Comparisons

Social comparisons were separated into two separate behaviors: upward and downward comparisons (Vogel, Rose, Roberts & Eckles, 2015). These comparisons were assessed using 2 statements each rated on a 5-point Likert scale with responses ranging from (1 = *not at all* to 5 = *a great deal*). The statements were “When comparing yourself to others on social media, to what extent do you focus on people better off / worse off than you?” For this sample, upward social comparisons had a mean of 2.69 ($SD = 1.25$) and downward social comparisons had a mean of 1.94 ($SD = 1.01$).

Perceived Stress Scale

The Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983) asks about the frequency of specific thoughts and feelings during the span of the previous month. This scale contained 10 items based on a 5-point Likert scale ranging from *never* to *very often*. An example item would be “How often have you been upset because of something that happened unexpectedly?” For this sample, the Perceived Stress Scale ($M = 20.22$, $SD = 6.65$) achieved an alpha reliability of .82.

Interpersonal Support Evaluation List

The Interpersonal Support Evaluation List (Cohen & Hoberman, 1983) is a 12-item list of statements assessing the perceived social support experienced by the participant. The list was answered based on how true these statements were about the participant and on a 4-point Likert scale ranging from *definitely false* to *definitely true*. An example of a statement on the list included “I feel that there is no one I can share my most private worries and fears with.” For this sample, the Interpersonal Support Evaluation List ($M = 37.63$, $SD = 7.42$) achieved an alpha reliability of .89.

Patient Health Questionnaire

The Patient Health Questionnaire Major Depressive Disorder subscale (Spitzer et al., 2012) is used to evaluate specific symptoms related depression. The subscale included 9 items asking the extent to which the participant had been negatively impacted by specific issues in the last two weeks. This scale is based on a 4-point Likert scale ranging from *not at all* to *nearly every day*. An example of these problems included “Little interest or pleasure in doing things.” A second subscale of the Patient Health Questionnaire measuring for Generalized Anxiety Disorder was used to evaluate specific symptoms related to anxiety. The subscale includes 7 items asking the extent to which the participant has been bothered by specific problems within the last 4 weeks. This scale is based on a 3-point Likert scale ranging from *not at all* to *more than half the days*. An example of these items included “Feeling restless so that it is hard to sit still.” For both the MDD subscale and the GAD subscale, an algorithm is used to determine whether the individual meets the criteria for diagnosis.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was composed of 10 statements dealing with general feelings about oneself. Participants indicated how strongly they agree or disagree with the statements on the list based on a 4-point Likert scale ranging from *strongly disagree* to *strongly agree*. Examples of the statements are “On the whole, I am satisfied with myself” and “At times I think I am no good at all.” For this sample, the Rosenberg Self-Esteem Scale ($M = 28.85$, $SD = 6.14$) achieved an alpha reliability of .90.

Body Image

There were 2 items for the Body Image measure in which participants were shown body stimuli images in either a female and male figure (Robinson et al., 2018). The body stimuli were marked from 1 = *thinnest*; 9 = *heaviest*. The 2 items ask participants to indicate which image describes their current body shape and which image describes their ideal body shape. For this sample, current body shape had a mean of 4.89 ($SD = 1.75$) and ideal body shape had a mean of 3.93 ($SD = 1.22$).

Big 5 Personality

The Big 5 Personality Shortened Scale was used for assessing personality traits related to the participant (John & Srivastava, 1999). The shortened scale contained 44 items containing statements pertaining to specific characteristics based on a 5-point Likert scale (1 = *disagree strongly*; 5 = *agree strongly*). Statements included in this scale are “I see myself as someone who is talkative” or “I see myself as someone who is relaxed, handles stress well.” For this sample, Openness ($M = 34.69$, $SD = 5.84$) achieved an alpha reliability of .72, Conscientiousness ($M = 31.16$, $SD = 5.19$) achieved an alpha reliability of .69, Extraversion ($M = 25.76$, $SD = 6.43$) achieved an alpha reliability of .83, Agreeableness ($M = 34.53$, $SD = 5.53$) achieved an alpha reliability of .73 and Neuroticism ($M = 25.79$, $SD = 6.30$) achieved an alpha reliability of .82.

Life Satisfaction Scale

Feelings towards life satisfaction were measured using the 9 item Life Satisfaction Scale based on a 4-point Likert scale (1 = *never*; 4 = *almost always*) (Hubner, 1991). Examples of the statements included are “I like the way things are going for me” and “I would like to change many things in my life.” For this sample, the Life

Satisfaction Scale ($M = 15.65$, $SD = 5.66$) achieved an alpha reliability of .88.

Demographic Items

Demographic information was obtained at the end of the survey. Participants were asked to provide their age, gender identity, race, ethnicity, and sexual orientation. These demographic questions were mostly categorically based except for age.

III. STATISTICAL ANALYSES

Scoring and Group Breakdown

Once the data collection stage was completed, researchers screened for possible outliers and missing values before conducting the main analyses. The Instagram Social Media Currency Scale (ISMCS) was scored and the distribution was determined to be very close to normal.

Scoring for the ISMCS involved combining scores for the 15 metric items and 5 subcategory (relevance, privacy, identity, self-esteem, and health) items in order to have one final composite ISMC score per individual. This was executed by taking the metric items and converting them into one new categorical variable that matched the 1-5 range of the already existing 5 subcategories. This important step was included in order to ensure that all scale categories were weighted evenly. Researchers averaged metric item scores and divided them into quintiles and thus completing the conversion. To compute final ISMCS scores, the 5 subcategories were then averaged with the new categorical metric variable. Scores on the ISMCS ranged from 1-5 where higher scores indicated higher social media currency/wealth.

Following the scoring process, three equal comparison groups were created: the social media poor comparison group (SMP) ($N = 174$), the social media moderate comparison group (SMM) ($N = 174$), and the social media rich comparison group (SMR) ($N = 174$). To be placed in the SMP group meant that these individuals scored low on the ISMCS (1 through 2.68), those in the SMM were in the mid ranges of the scale (2.69 through 3.17) and those in the SMR were in the higher ranges of the scale (3.18 through 5).

The decision to assess scores on the ISMCS in three equal groups was in part justified due to the normality of its distribution as previously mentioned. The distribution not only rendered itself to be easily divided into three equal groups but it also helped reduce the risk of over generalization of the SMP and SMR groups through dichotomization. Researchers determined that examining differences between three groups rather than two would then provide more representative insights to the underlying patterns and interactions occurring. Although the goal to compare differences in the SMP and SMR groups remained as the priority of the study, comparisons regarding the SMM group provided other important findings of the occurring trends and patterns.

Univariate Analyses

All demographic data were examined using Chi-square tests of independence except for the age item in which a one-way ANOVA was implemented.

One-way ANOVAs were conducted to compare the three ISMCS comparison groups as they relate to the Bergen Social Media Addiction Scale, Social Media Intensity Scale, and Need for Social Media Scale obtained values. Additional one-way ANOVAs were conducted to examine differences in the three comparison groups as they related to the psychosocial measures included in the questionnaire. Tukey post hoc analyses were included for significant omnibus ANOVAs.

Multivariate Analyses

Those scales demonstrating significant differences in means within the univariate comparisons were included in a multinomial logistic regression model to identify the key factors involved in predicting group membership within the ISMCS.

IV. RESULTS

The analyses conducted for this study aimed to determine whether the ISMCS demonstrated indications of validity and how it compared against other established social media scales. Additional analyses conducted also helped assess how the three comparison groups (SMP, SMM and SMR) created during the grouping stage compared to one another in regards to psychosocial factors and overall health.

Demographic Comparisons

There were no significant differences between the three comparison groups in terms of age. However, there were significant differences present between the three comparison groups for the remaining demographic items as seen in Table 2. There was a significantly higher proportion of Whites and females ($p < .001$) and a significantly lower proportion of Hispanic individuals ($p < .001$) in the SMR group.

Validation of ISMCS with Social Media Scales

Comparisons for the validated social media scales are presented in Table 3. There were significant differences of social media addiction between all comparison groups relating to the Instagram platform $F(2,518) = 42.39$ $p < .001$. Post hoc comparisons using Tukey HSD tests indicated that means between groups were each significantly different from one another, with the social media rich group (SMR) ($M = 3.08$, $SD = 0.90$) having the highest means for social media addiction on Instagram compared to those in the social media poor (SMP) ($M = 2.26$, $SD = 0.84$) and moderate group (SMM) ($M = 2.63$, $SD = 0.84$). Significant differences between groups were also observed on levels of Instagram Intensity $F(2,518) = 71.69$, $p < .001$. Post hoc comparisons using Tukey HSD test indicated that means between groups were each significantly different from one another,

with individuals in the SMR group ($M = 3.84$, $SD = 0.82$) having the greatest means when compared to the SMP ($M = 2.74$, $SD = 0.91$) and SMM groups ($M = 3.23$, $SD = 0.85$). Lastly, for the Need for Social Media Scale, group comparisons were significant $F(2,518) = 71.69$, $p < .001$. Individuals in the SMR group had significantly higher levels of need for social media than those in the SMP and SMM groups.

Psychosocial Comparisons

Comparisons for psychosocial factors and the three comparison groups are shown in Table 4. Chi-square tests of independence were conducted to examine the Patient Health Questionnaire (PHQ) subscales. Results showed that there were significant differences between comparison groups in relation to meeting the MDD criteria $X^2(2, N = 522) = 44.04$, $p = .022$. Individuals in the SMR group had a higher likelihood of meeting the criteria for MDD. Additionally, results showed that there were significant differences between comparison groups in relation to meeting the GAD criteria $X^2(2, N = 522) = 10.81$, $p = .005$. Similar to what was observed in the MDD subscale, individuals in the SMR group had a higher likelihood of meeting criteria for GAD.

The remaining psychosocial measures were analyzed using one-way ANOVAs. There were significant differences between groups in terms of perceived stress $F(2,518) = 5.90$, $p = .003$. Post hoc comparisons using the Tukey HSD test indicated that means between groups were each significantly different from one another, with individuals in the SMR group ($M = 20.90$, $SD = 6.62$) having the highest means for perceived stress when compared to the SMP ($M = 18.82$, $SD = 6.43$) and SMM groups ($M = 20.95$, $SD = 6.70$). Comparisons for perceived social support on the ISEL revealed significant differences between groups $F(2,517) = 3.29$, $p = .038$. Post hoc comparisons using the

Tukey HSD test indicated that only the means between the SMP ($M = 36.70$, $SD = 7.20$) and SMR ($M = 38.72$, $SD = 7.61$) group varied significantly.

Comparison groups differed significantly on two personality traits measured by The Big Five Personality Inventory: extraversion, $F(2,516) = 8.911$, $p < .001$ and neuroticism, $F(2,516) = 3.97$, $p = .019$. The post hoc test revealed that individuals in the SMR ($M = 27.27$, $SD = 5.99$) group had significantly higher levels of extraversion than those in the SMP. For the neuroticism trait, the post hoc test revealed significant differences only in the SMP ($M = 24.73$, $SD = 5.93$) and SMM ($M = 26.56$, $SD = 6.46$) groups.

There were significant differences between all three groups in the upward social comparisons $F(2,519) = 36.55$, $p < .001$ and downward social comparisons $F(2,516) = 15.27$, $p < .001$ measures. Post hoc tests revealed significant differences between all three group in terms of upward social comparisons The SMR ($M = 24.73$, $SD = 5.93$) group had the highest frequency of upward social comparisons than the SMP ($M = 3.21$, $SD = 1.30$) and SMM ($M = 2.74$, $SD = 1.15$) groups. Post hoc tests revealed significant differences between all three group in terms of upward social comparisons. The SMR ($M = 2.21$, $SD = 1.13$) group had the highest frequency of upward social comparisons than the SMP ($M = 1.63$, $SD = 0.84$) and SMM ($M = 1.98$, $SD = 0.97$) groups.

Multivariate Comparisons

Multinomial logistic regression models were developed in order to determine which demographic factors and psychosocial factors were most associated with individuals in the SMM and SMR groups, with the SMP group as the reference. All demographic and psychosocial factors that showed significant differences between

groups at the univariate level were included in the models. The omnibus test was significant, $X^2(2) = 154.96, p < .001$ with a -2LL= 925.92 and Nagelkerke R-Square = .30.

Table 5 displays the results of the regression model examining the SMM group using the SMP as the reference group. For psychosocial factors, those with high levels of extraversion on the Big 5 Personality measure were significantly more likely to be in the SMM group ($p < .001$). In addition, individuals who frequently make upward social comparisons while online, were also associated with the SMM group ($p < .001$). Lastly, an identified demographic variable associated with SMM was female gender identification ($p < .001$).

Table 6 displays the results of the regression model examining the SMR group using the SMP as the reference group. For psychosocial factors, those with high levels of extraversion on the Big 5 Personality measure were significantly more likely to be in the SMR group ($p < .001$). In addition, individuals who frequently make both upward and downward social comparisons while online, were also associated with the SMR group ($p < .001$). Similarly to the previous regression model, an identified demographic variable associated with SMR was female gender identification ($p < .001$). Additionally, individuals who did not identify as being Hispanic or Latino were also associated with being in the SMR group ($p < .001$).

V. DISCUSSION

This study had two main goals: to provide support for the validation of the Instagram Social Media Currency Scale (ISMCS) and to explore the demographic and psychological factors most associated with social media rich (SMR) individuals within the sample. Additionally, researchers hypothesized that individuals in the SMR comparison group would be less healthy when compared to individuals who were considered social media poor (SMP). Although this study mainly focused on the comparisons between scores on the extreme ends of the ISMCS, the social media moderate (SMM) group comparisons also provided important insights to the relative patterns and trends observed. This study completed both goals and partially supported the proposed hypothesis.

ISMCS Validation

The conceptualization of the term Social Media Currency and the ISMCS were created in order to address the challenges of limited social media behavior measures in the existing literature. This measure incorporated the Social Media Currency term by treating likes, comments, follows and other measurable tools social media provides as mediums of exchange and assets holding social value that can be gained or lost through social media interaction. Rather than only measuring a feeling or need elicited toward social media, this scale provided insights on the interactions and activities occurring as users are on Instagram while still accounting for addictive behaviors or intensity of use.

There were four strategies planned in order to increase the likelihood of the ISMCS meeting validity and reliability standards. Firstly, this scale was piloted through a previous study in which an item reduction was completed using an exploratory factor

analysis. The 5 Likert subcategories (relevance, privacy, identity, self-esteem, and health) were deduced from the results of the analyses providing additional support that these items were carefully designed. In this study, bivariate correlations were used to determine whether these subcategories were associated with single item slider statements that reflected the intended targeted behavior. The significant positive correlational values resulting from these analyses also increased confidence in the validity of the ISMCS. In addition, this scale achieved an acceptable reliability alpha value, suggesting that the ISMCS was also meeting the reliability criteria.

Results of the univariate comparisons revealed similarities between the ISMCS and the existing scales. When the three groups were compared based on the Bergen Social Media Addiction Scale (BSMAS), the Need for Social Media Scale, and the Social Media Intensity Scale, similar trends were identified for all three analyses. The SMP group had the lowest means in terms of addiction, need for social media, and intensity of Instagram use for all three measures. In contrast, the SMR comparison group had the highest means when addiction, need for social media, and intensity was assessed. Furthermore, all three scales had significant differences between all three groups. Findings such as these increased confidence in the validity and reliability of the ISMCS such that individuals in the SMR group were expected to be more active on Instagram, thus increasing the likelihood of also displaying elevated addiction, need for and intensity of social media. The opposite effect was expected for the SMP group. These findings imply that the ISMCS serves as a useful collective measure of social media behavior, interactions, and intensity of use.

Demographic and Psychosocial Associations

Following the important validation and reliability analysis stage, researchers began to address the second goal of this study. This goal was to examine how comparison groups from the ISMCS measure differed in terms of psychosocial factors. The proposed hypothesis suggested that individuals in the SMR group would have decreased general health and well-being compared to the other two comparison groups. This prediction was partially supported.

On a univariate level, findings in this study showed a general trend for the SMR group displaying the highest means for all measures showing significant differences among groups. The SMR group typically had the highest perceived stress, frequencies of meeting the Major Depressive Disorder and Generalized Anxiety Disorder criteria, neuroticism and extraversion traits. Additionally, SMR individuals also had significantly higher rates for participation in upward and downward social comparisons. These findings imply that in some life aspects, individuals in the SMR group might be experiencing more distress than the other two groups.

Findings of the multivariate analyses revealed identifying as female, high levels of extraversion, and higher frequency of upward social comparisons as factors most associated with moderate levels of social media wealth. Moreover, similar findings were observed when predicting high levels of social media wealth with a few additional factors. Identifying as female, non-Hispanic, increased extraversion, and higher frequency of upward and downward social comparisons were identified as associated factors with the SMR group. Although researchers expected these analyses to reveal indications of overall low quality of life, these findings provide some useful insight about

the factors most important to consider when examining social media use and therefore partially support the hypothesis.

As of 2019, studies indicate that 78% of women and 65% of men in the U.S. social networking site users (Pew Research Center, 2017). This information might explain why females in our sample were more likely to be in the SMR group. Additionally, a research study found gender differences in the factors contributing to satisfaction and continuation of use for social media (Krasnova, Veltri, Eling & Buxmann, 2017). This study found that women were motivated to use social media for relational use, maintaining relationships, and getting access to social information from close and distant ties. In contrast, men were found to be driven by general information seeking. These variations in reasons for social media use could explain the observations in this present study. Researchers suspect that relational use requires more time and effort on social media compared to general information seeking and thus predicts an increase in levels of use for women. However, further investigation is needed to support such claims.

Identifying as non-Hispanic was among the associated demographic factors to the SMR group but interestingly not in the SMM group. Due to limited research about the social media behaviors associated with Hispanic and Latino individuals, it is difficult to explain such findings. A past study found that Hispanic use of social media was lower for those living in the U.S. versus other countries (Li & Tsai, 2015). This finding helps support the observations made in the present study but underlying causes for such trends are still unknown.

The extraversion personality trait was a psychological factor strongly associated with the SMM and SMR groups. This finding is not surprising as extraversion is marked

by a focus on things outside the self. In a past study, extroverts were more likely to post frequently and discuss topics about everyday social activities in their Facebook status updates (Marshall et al., 2015). Posting more frequently in general could have influenced individuals' scores on the ISMCS and thus increased the likelihood that they were placed in the SMM and SMR groups. A different study found that although there wasn't a direct relationship between extraversion and social media addiction, this relationship was mediated by receiving positive feedback (Marengo, Poletti & Settanni, 2020). When extroverts received positive feedback, their social media activity increased, thus creating an increased risk of developing social media addiction. In general, these findings support the observations made in the present study.

Interestingly, upward social comparisons were associated with both SMM and SMR groups while only downward social comparisons were associated with SMR. This finding could imply that as scores on the ISMCS increased, the frequency of generally participating in social comparisons increased. In some research, upward social comparisons have shown to increase motivation and downward social comparisons to encourage empathetic concern (Buunk & Dijkstra, 2017). These findings are based on in-person social interactions. Research on online social comparisons however, are suggesting that this behavior might not be conducive to well-being. In a recent study, online upward social comparisons were linked to increased likelihood of meeting the criteria for Major Depressive Disorder (Robinson et al., 2019). Additionally, research on online downward social comparisons found a connection with increased online trolling behaviors (Howard, Haskard-Zolnierrek, Critz, Dailey & Ceballos, 2019). Although it is unknown whether these specific behaviors are positively or negatively affecting the well-

being of individuals in the SMM and SMR groups, these findings suggest that social comparisons are constantly occurring.

Limitations and Future Research

A limitation of this study was that all measures were based on self-report. It is possible that participants underestimated or overestimated their social media behaviors. Additionally, measuring social media interactions is a challenging task as number of followers, posts and likes are dramatically changing day by day. Another possible limitation in this study is that all data were collected on the Instagram social media platform. Therefore, findings of this study can only be fully generalizable to studies examining the Instagram platform. Future studies may include developing additional scales catered to other popular social media platforms in the context of Social Media Currency.

Conclusion

Findings in this study support that the Instagram Social Media Currency Scale is a valid measure for social media behaviors and interactions. Additionally, this study provided insights to this newly developed measure and identified specific demographic and psychosocial characteristics that are associated with individuals who are considered to be social media rich. Although in terms of monetary standings the perception of being rich or wealthy may inherently hold positive connotations, this study revealed that in regards to social media currency, being considered rich could instead be harmful. More support for these findings is needed through replication studies and future research. These findings are important in order to continue in the goal of understanding how social media may impact our well-being and health.

APPENDIX SECTION

Table 1.

Instagram Social Media Currency Scale (ISMCS) Items

Metric Items (Numeric Responses)
1. How many hours each day do you spend using your Instagram account?
2. How many likes must you get on a picture posted on Instagram to prevent you from deleting it?
3. Approximately how many posts do you post each month on Instagram?
4. Of the followers you currently have on Instagram, how many of these individuals do you know personally?
5. Approximately how many hashtags do you use per post on Instagram?
6. On average, how many likes per post do you get on Instagram?
7. Approximately how many comments per post do you receive on Instagram?
8. Of those following you on Instagram, how many people like most of your posts?
9. What is your follower count on Instagram?
10. What is your following count on Instagram?
11. What is the highest amount of likes that you've ever gotten on Instagram?
12. How many pictures are you tagged in total on Instagram?
13. How long has your Instagram account been active?
14. What is your total number of picture posts on Instagram?
15. How many people do you communicate with through Instagram on a daily basis?
Relevance (1 = <i>not important at all</i> ; 5 = <i>extremely important</i>)
1. My follower count is important to me
2. It is important for me to be tagged in every picture I am in
3. The number of likes that I get per post is important to me
4. The number of people I follow is important to me
5. My Instagram account must be aesthetically pleasing
6. I expect those closest to me to like all my posts
Relevance (1 = <i>does not describe me</i> ; 5 = <i>describes me extremely well</i>)
7. I have posted on my story to see whether specific individuals see it or respond to it
8. After making a post, I have consistently checked my account
9. I have asked my friends to like my pictures
10. I have stayed up longer than I wanted to at night because I was on Instagram
11. I have removed pictures I posted in the past because I no longer liked them
12. It usually takes me some time to decide if I should post a picture or not
Self-esteem (1 = <i>strongly disagree</i> ; 5 = <i>strongly agree</i>)
1. I wish I looked like the Instagram famous people I follow
2. I think I look more attractive with filters on my face
3. I feel attractive when I get likes on pictures of myself
4. I look better in posts I have on my account versus posts I am tagged in

5. I have felt bad about myself after seeing someone else's post
6. Most of the pictures I have posted of myself are edited
Identity (1 = <i>strongly disagree</i> ; 5 = <i>strongly agree</i>)
1. People can get a sense of my personality from looking at my Instagram account
2. I attribute the feedback I receive on Instagram to myself as a person
3. I behave the same way on Instagram as I would in person
4. My Instagram account is part of who I am
5. If someone likes me on Instagram, they will also like me in person
Privacy (1 = <i>does not describe me</i> ; 5 = <i>describes me extremely well</i>)
1. I have my account on private the majority of the time
2. I have customized my story so only certain people can see my posts
3. I have posted pictures of myself drinking
4. I have posted pictures of myself doing drugs
5. I have shared my location through Instagram
6. I have shared information about my childhood on Instagram
7. I have felt comfortable posting about my sexuality
8. I am not picky about the people that can view my Instagram account
Health (1 = <i>does not describe me</i> ; 5 = <i>describes me extremely well</i>)
1. I have made positive lifestyle changes due to being on Instagram
2. I have posted about my healthy meals or healthy eating habits
3. I have posted about myself working out
4. I have followed or currently follow positivity pages on Instagram

Table 2. Demographic Comparisons

	Social Media Poor (SMP)	Social Media Moderate (SMM)	Social Media Rich (SMR)	Statistical Significance
Age	19.27 (2.13)	18.93 (1.35)	19.12 (1.52)	$F = 9.877$ $p = .187$
Gender Identity				
Male	28.5%	11.0%	4.0 %	$X^2 = 44.035$ $p < .001$
Female	71.5%	89.0%	96.0%	
Race 3 Groups				
Caucasian/White	64.0%	69.6%	75.7%	$X^2 = 10.349$ $p = .035$
African American/Black	12.2%	16.1%	11.8%	
Other	23.8%	14.3%	12.4%	
Hispanic Identification	50.9%	42.8%	37.0%	$X^2 = 6.802$ $p = .033$

* $M (SD)$ are reported for age on this table. Bolded values show Chi-Square significant differences between groups

Table 3. Scale Comparisons

	Social Media Poor (SMP)	Social Media Moderate (SMM)	Social Media Rich (SMR)	Statistical Significance
Social Media Addiction	2.26 (0.76)	2.63 (0.84)	3.08 (0.90)	$F = 42.394$ $p < .001$
Instagram Intensity	2.74 (0.91)	3.23 (0.85)	3.84 (0.82)	$F = 71.691$ $p < .001$
Need for Social Media	3.29 (0.88)	3.83 (0.81)	4.19 (0.83)	$F = 50.550$ $p < .001$

* M (SD) are reported for scale comparisons on this table. Bolded values show post-hoc tests show significant differences between all 3 comparison groups for all of these Social Media Scales

Table 4. Psychosocial Comparisons

	SMP	SMM	SMR	Statistical Significance
Patient Health Questionnaire (PHQ)				
MDD	9.9%	13.3%	20.1%	$X^2 = 7.605$ $p = .022$
GAD	11.5%	14.9%	24.3%	$X^2 = 10.805$ $p = .005$
Perceived Social Stress (PSS)	18.82 (6.43)	20.95 (6.70)	20.90 (6.62)	$F = 5.900$ $p = .003$
Social Support (ISEL)	36.70 (7.20)	37.49 (7.33)	38.72 (7.61)	$F = 3.285$ $p = .038$
Self-Esteem (RSES)	29.00 (6.20)	28.40 (5.89)	29.15 (6.34)	$F = 0.720$ $p = .487$
Body Image	-0.87 (1.67)	-0.94 (1.59)	-1.07 (1.69)	$F = 0.640$ $p = .528$
Big 5				
Openness	34.18 (5.81)	34.55 (5.80)	35.32 (5.91)	$F = 1.724$ $p = .179$
Conscientiousness	30.77 (5.04)	31.13 (5.50)	31.59 (5.03)	$F = 1.085$ $p = .339$
Extraversion	24.40 (6.27)	25.60 (6.71)	27.27 (5.99)	$F = 8.911$ $p < .001$
Agreeableness	34.28 (5.30)	34.36 (6.06)	34.94 (5.19)	$F = 0.716$ $p = .489$
Neuroticism	24.73 (5.93)	26.56 (6.46)	26.06 (6.38)	$F = 3.973$ $p = .019$
Quality of Life (QOL)	15.42 (5.43)	15.23 (5.60)	16.31 (5.91)	$F = 1.786$ $p = .169$
Social Comparisons				
Upward	2.14 (1.04)	2.74 (1.15)	3.21 (1.30)	$F = 36.552$ $p < .001$
Downward	1.63 (0.84)	1.98 (0.97)	2.21 (1.13)	$F = 15.268$ $p < .001$

* M (SD) are reported for psychosocial comparisons on this table. Bolded values show significant post-hoc differences corresponding to their specific groups; all other results do not show significant post-hoc differences between the 3 groups

Table 5. Multinomial Logistic Regression Predicting Social Media Moderate Group (Social Media Poor as reference group)

	<i>B</i>	<i>SE</i>	<i>p</i> -value	<i>Exp (β)</i>	95% CI Lower	95% CI Upper
Constant	-6.262	1.314	.000			
Female Gender	1.192	.344	.001	3.292	1.679	6.457
Race (White as reference)	-.201	.152	.188	.818	.607	1.103
Ethnicity (Hispanic)	-.257	.242	.290	.774	.481	1.244
PHQ GAD	-.184	.439	.675	1.076	.352	1.967
PHQ MDD	.073	.465	.875	1.076	.432	2.678
Perceived Social Stress (PSS)	.026	.026	.315	1.027	.975	1.081
Social Support (ISEL)	.021	.018	.235	1.022	.986	1.059
Big 5: Extraversion	.046	.022	.037	1.047	1.003	1.093
Big: 5 Neuroticism	.039	.029	.184	1.039	.982	1.100
Upward Social Comparisons	.268	.124	.030	1.308	1.026	1.666
Downward Social Comparisons	.237	.149	.113	1.267	.945	1.699

*Bolded values show statistically significant *p*- values for variables associated with the SMM group

Table 6. Multinomial Logistic Regression Predicting Social Media Rich Group (Social Media Poor as reference group)

	β	SE	p-value	Exp (β)	95% CI Lower	95% CI Upper
Constant	-9.674	1.600	.000			
Female Gender	2.383	.484	.000	10.839	4.199	27.979
Race (White as reference)	-.225	.169	.183	.798	.573	1.112
Ethnicity (Hispanic)	-.550	.264	.038	.577	.344	.969
PHQ GAD	.425	.457	.353	1.529	.624	3.745
PHQ MDD	.672	.485	.166	1.959	.757	5.067
Perceived Social Stress (PSS)	-.001	.028	.971	.999	.947	1.054
Social Support (ISEL)	.038	.020	.062	1.038	.998	1.080
Big 5: Extraversion	.085	.024	.000	1.088	1.039	1.140
Big: 5 Neuroticism	-.014	.031	.660	.986	.928	1.048
Upward Social Comparisons	.631	.132	.000	1.880	1.450	2.437
Downward Social Comparisons	.372	.153	.015	1.450	1.074	1.959

*Bolded values show statistically significant *p*- values for variables associated with the SMR group

REFERENCES

- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook Addiction Scale. *Psychological Reports, 110*, 501-517.
- Bennet, A. (2014). *Social Media: Global Perspectives, Applications and Benefits and Dangers*. New York, NY: Nova Science Publishers, Inc.
- Buunk, A. P., & Dijkstra, P. (2017). Social comparisons and well-being. In M. D. Robinson & M. Eid (Eds.), *The happy mind: Cognitive contributions to well-being*. (pp. 311-330). Cham: Springer International Publishing.
https://doi.org/10.1007/978-3-319-58763-9_17
- Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology, 13*, 99-125.
- Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385-396.
<https://doi.org/10.1111/j.1559-1816.1983.tb02325.x>
- de Vries, D. A., Möller, A. M., Wieringa, M. S., Eigenraam, A. W., & Hamelink, K. (2018). Social comparison as the thief of joy: emotional consequences of viewing strangers' Instagram posts. *Media Psychology, 21*(2), 222-245.
<https://doi.org/10.1080/15213269.2016.1267647>
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication, 12*(4), 1143-1168.
<https://doi.org/10.1111/j.1083-6101.2007.00367.x>

- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society, 13*(6), 873-892. <https://doi-org.libproxy.txstate.edu/10.1177/14614444810385389>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations; Studies Towards the Integration of the Social Sciences, 7*, 117–140.
- Frison, E., & Eggermont, S. (2017). Browsing, posting, and liking on Instagram: The reciprocal relationships between different types of Instagram use and adolescents' depressed mood. *Cyberpsychology, Behavior, and Social Networking, 20*(10), 603-609. <https://doi-org.libproxy.edu/10.1089/cyber.2017.0156>
- Howard, K., Zolnierrek, K. H., Critz, K., Dailey, S., & Ceballos, N. (2019). An examination of psychosocial factors associated with malicious online trolling behaviors. *Personality and Individual Differences, 149*, 309-314. <https://doi-org.lib.proxy.txstate.edu/10.1016/j.paid.2019.06.020>
- Huebner, E. S. (1991). Student's Life Satisfaction Scale [Database record]. Retrieved from PsycTESTS. doi: 10.1037/t01812-000. From: Huebner, E. S. (1991). Initial development of the Student's Life Satisfaction Scale. *School Psychology International, 12*(3), 231-240. doi: 10.1177/0143034391123010.
- Jackson, C. A., & Luchner, A. F. (2018). Self-presentation mediates the relationship between self-criticism and emotional response to Instagram feedback. *Personality and Individual Differences, 133*, 1-6. <https://doi.org/10.1016/j.paid.2017.04.052>

- Jasso-Medrano, J. L., & Lopez-Rosales, F. (2018). Measuring the relationship between social media use and addictive behavior and depression and suicide ideation among university students. *Computers in Human Behavior*, 87, 183-191.
<https://doi-org.libproxy.txstate.edu/10.1016/j.chb.2018.05.003>
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin, & O. P. John (Vol. Eds.), *Handbook of personality: Theory and Research*. Vol. 2. (pp. 102-138). New York: Guilford Press.
- Krasnova, H., Veltri, N. F., Eling, N., & Buxmann, R. (2017). Why men and women continue to used social networking sites: The role of gender differences. *Journal of Strategic Information Systems*, 26(4), 261-284.
<https://doi.org.libproxy.txstate.edu/10.1016/j.jsis.2017.01.004>
- Li, C., & Tsai, W. -H. S. (2015). Social media usage and acculturation: A test with Hispanics in the US. *Computers in Human Behavior*, 45, 204-212. <https://doi-or.libproxy.txstate.edu/10.1016/j.chb.2014.12.018>
- Lim, M., & Yang, Y. (2015). Effects of users' envy and shame on social comparison that occurs on social network services. *Computers in Human Behavior*, 51, 300-311.
<https://doi.org/10.1016/j.chb.2015.05.013>
- Liu, B., & Wei, L. (2018). Modeling social support on social media: Effect of publicness and the underlying mechanisms. *Computers in Human Behavior*, 87, 263-275.
<https://doi-org.libproxy.txstate.edu/10.1016/j.chb.2018.05.006>

- Marengo, D., Poletty, I., & Settanni, M. (2020). The interplay between neuroticism, extraversion, and social media addiction in young adult Facebook users: Testing the mediating role of online activity using objective data. *Addictive Behaviors*, 102. <https://doi-org.libproxy.txstate.edu/10.1016/j.addbeh.2019.106150>
- Marshall, T. C., Lefringhausen K., & Ferenczi, N. (2015). The Big Five, self-esteem, and narcissism as predictors of the topics people write about in Facebook status updates. *Personality and Individual Differences*, 85, 35-40. <https://doi.org/10.1016/j.paid.2015.04.039>
- McCain, J. L., Borg, Z. G., Rothenberg, A. H., Churillo, K. M., Weiler, P., & Campbell, W. K. (2016). Personality and selfies: Narcissism and the Dark Triad. *Computers in Human Behavior*, 64, 126-133. <https://doi-org.libproxy.txstate.edu/10.16/j.chb.2016.06.050>
- Michikyan, M., Subrahmanyam, K., & Dennis, J. (2015). A picture is worth a thousand words: A mixed methods study of online self-presentation in a multi-ethnic sample of emerging adults. *Identity: An International Journal of Theory and Research*, 15(4), 287-308. <https://doi.org/10.1080/15283488.2015.1089506>
- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology & Behavior*, 12(6), 729-733. <https://doi.org/10.1089/cpb.2009.0003>

- Pew Research Center. (2019). *Millennials stand out for their technology use, but older generations also embrace digital life*. Retrieved from:
<https://www.pewresearch.org/fact-tank/2019/09/09/us-generations-technology-use/>
- Pew Research Center. (2019). *Social media use by gender*. Retrieved from:
<https://www.pewresearch.org/internet/chart/social-media-use-by-gender/>
- Primack, B. A., Shensa, A., Escobar-Viera, C. G., Barrett, E. L., Sidani, J. E., Colditz, J. B., & James, A. E. (2017). Use of multiple social media platforms and symptoms of depression and anxiety: A nationally-representative study among US young adults. *Computers in Human Behavior*, 69, 1-9.
<https://doi.org/10.1016/j.chb.2016.11.013>
- Robinson, A., Bonnette, A., Howard, K., Ceballos, N., Dailey, S., Lu, Y., & Grimes, T. (2019). Social comparisons, social media addiction, and social interaction: An examination of specific social media behaviors related to major depressive disorder in a millennial population. *Journal of Applied Biobehavioral Research*.
<https://doi.org/10.1111/jabr.12158>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Treem, J., Dailey, S. L., Pierce, C. S., & Biffel, D. (2016). What are we talking about when we talk about social media: A framework for study. *Sociology Compass*, 10, 768-784. <https://doi.org/10.1111/soc4.12404>

- Spitzer, R.L., Kroenke, K., Williams, J.B.W, et al. (1999). Validation and utility of the self-report version of the PRIME-MD: The PHQ Primary Care Study. *JAMA*, 282(18), 1737-1744. doi:10.1001/jama.282.18.1737
- Steers, M.-L.N., Wickham, R. E., & Acitelli, L.K. (2014). Seeing everyone else's highlight reels: How Facebook usage is linked to depressive symptoms. *Journal of Social and Clinical Psychology*, 33(8), 701-731.
<https://doi.org/10.1521/jscp.2014.33.8.701>
- Sutcliffe, A. G., Binder, J. F., & Dunbar, R. I. M. (2018). Activity in social media and intimacy in social relationships. *Computers in human behavior*, 85, 227-235.
<https://doi-org.libproxy.txstate.edu/10.1016/j.chb.2018.03.050>
- Tamplin, N. C., Mclean, S. A., & Paxton, S. J. (2018). Social media literacy protects against the negative impact of exposure to appearance ideal social media images in young adult women but not men. *Body Image*, 26, 29-37. <https://doi-org.libproxy.txstate.edu/10.1016/j.bodyim.2018.05.003>
- Tiggermann, M., Hayden, S., Brown, Z., & Veldhuis, J. (2018). The effect of Instagram "likes on women's social comparison and body dissatisfaction. *Body Image*, 26, 90-97. <https://doi.org/10.1016/j.bodyim.2018.07.002>
- Vogel, E. A., & Rose, J. P. (2017). Perceptions of perfection: The influence of social media on interpersonal evaluations. *Basic and Applied Social Psychology*, 39(6), 317-325. <https://doi.org/10.1080/01973533.2017.1356303>