Are Personality and Facebook Use Related to Depression and Anxiety?

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Abstract

Different types of Facebook use can make someone more susceptible to depression or anxiety. People who use surveillance use, or passive use, are likely to develop Facebook envy, and in turn are more likely to develop Facebook depression. People who use Facebook in a way that involves negative social comparison, or those who are bullied on Facebook, are also more likely to develop FB depression. In addition, different populations are more susceptible to developing depression or anxiety as a result of their Facebook use. College students, adolescents, people who are low in extraversion or high in neuroticism, along with individuals who are already depressed are also at a higher risk of experiencing depression as a result of their Facebook use. Those who have a high level of Facebook intensity are at risk of developing anxiety. We conducted an online survey among undergraduates at Appalachian State University with questions about their Facebook use, as well as measures of depression, anxiety, personality, and social comparison. We found that bullying, social comparison, Facebook-specific social comparison, neuroticism, introversion and low conscientiousness correlate with depression and anxiety. Negative social comparison correlated with passive use and may be a mediating variable between depression and passive Facebook use.

Keywords: social media, Facebook, depression, anxiety, social comparison, personality, Big 5, OCEAN.

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Social Media & Depression

Many research studies have focused on the impact that social media has on our mental health. One of the most researched topics is Facebook Depression, which occurs when individuals spend a lot of time on social media sites and develop depressive symptoms, often linked to online bullying, negative social comparison, and interactions that lead to a reduction in the person's personal self-worth (Simoncic, Kuhlman, Vargas, Houchins & Lopez-Duran, 2014). Several studies have supported the theory that using social networking sites could be related to increased feelings of loneliness, low self-esteem, and depression. These studies show that computer-based communication can lead to an incorrect perception of the success or happiness of other people's lives, which can often lead people to the conclusion that the lives of other internet users are somehow better (Banjanin, Banjanin, Dimitrijevic & Pantic, 2015). This perception can contribute to feelings of inferiority and subordination (Tandoc, Ferrucci & Duffy, 2015). While Facebook use on its own does not directly cause the increase of depressive symptomatology, there has been a significant amount of research looking into different factors that might mediate the relationship between Facebook use and depression. These influencing risk factors seem to separate into two categories: populations vulnerable to experiencing Facebook depression, and types of Facebook use that make one more likely to experience Facebook depression.

Among all populations, one potentially dangerous use of Facebook involves negative social comparison. The nature of and amount of information posted on Facebook provides individuals with many opportunities to compare themselves with others. When people view

information about others, they tend to relate that information to themselves, which can lead them to make either positive or negative self-judgments. Because the majority of information posted on Facebook is positive, it is easy for people to view the good things happening in others' lives and feel inadequate as a result. For example, if someone who recently graduated high school views their friends' posts about going off to college while they are still living at home with their parents, they may experience negative social comparison and self-evaluation, which are associated with depressive symptoms. Another factor related to social comparison and depressive symptoms is rumination. Rumination is thinking about one's own distress, its causes and effects, in a repetitive way, or dwelling on problems and bringing them to one's mind over and over again. Thus, when one's use of social media leads to social comparison, negative self-evaluation, and ruminating about one's problems, it puts one at a greater risk of developing depression (Feinstein et al., 2013).

Another important factor that can make someone more susceptible to Facebook depression is the way in which they use the site. Much of the research breaks Facebook down into active behaviors and passive behaviors, or surveillance use (Simoncic et al., 2015). Active behaviors include posting a status, photo, or commenting on another's post. Surveillance use is defined as using Facebook with the purpose to monitor the activity and lives of others by viewing their photos, posts, and timeline. While surveillance (passive) Facebook use does not predict depressive symptomatology, it does predict feelings of envy, which often leads to the development of depressive symptoms (Tandoc et al. 2015). This effect can be explained by social rank theory. Social rank theory is a theory of depression that has to do with competition over resources (Tandoc et al. 2015). When we are unable to

gain the resources we feel that we need, we feel inadequate or subordinated. Those who feel subordinate are at a higher risk of developing depression. In terms of Facebook, one of the resources over which we compete is positive self-image, or social attractiveness. When we feel as if others are more socially appealing than we are, we feel inferior and begin to become envious of their positive self-image. We perceive the lives of others as happier and more successful than our own and wish for the success that they have. In many cases, this can contribute to the development of Facebook Depression. When Facebook use contributes to negative self-image, low self-esteem, and envy, Facebook can become a dangerous place (Tandoc et al., 2015).

Young adults are at a higher risk of experiencing Facebook depression. Young adults, typically age 18-23, are often experiencing significant change in their lives. Many people are moving to college and leaving the support system of their home town for the first time. This, combined with the stress of living on their own and attending college classes for the first time, along with greater autonomy, can make these individuals much more at risk to develop depression, without even considering the effects that Facebook can have (Tandoc et al., 2015). All of this new stress can make young adults feel as if they are failing. When combined with the highly edited, positively-spun nature of Facebook, college students may feel inferior when compared to their seemingly successful and happy classmates, leading to jealousy, which increases the likelihood of experiencing Facebook depression. According to Kross et al. (2013), Facebook use is correlated with declines in subjective well-being, which includes how people feel in each moment, and how satisfied they are with their lives overall.

In this longitudinal study, the more people used Facebook, the worse they felt over time (Kross et al., 2013).

According to Appel, Crusius, and Gerlach (2015), depressed individuals are at a higher risk of developing envy after using Facebook because of maladaptive social comparison processes that are associated with depression. For example, individuals with depression are more likely to compare themselves with others more frequently, evaluate themselves more negatively than others, and be more negatively affected by unflattering comparisons. When combined with the heavily edited and positively skewed nature of social media sites, this invites these individuals to compare themselves with others even more, making Facebook users who are already depressed extremely vulnerable to experiencing Facebook depression, which would likely exacerbate their symptoms (Appel et al., 2015).

Personality and Depression

Throughout years of psychological study, many studies have concluded that there is a connection between certain personality traits and one's susceptibility to developing depressive symptoms. For example, depression is positively correlated with high levels of neuroticism. Neuroticism often involves being anxious, depressed, guilty, tense, shy, irrational, overly emotional, and having low levels of self-esteem, and is often associated with having a number of mental health issues (Grav, Stordal, Romild, & Hellzen, 2012). Another personality trait that has exhibited a correlation with the development of depression is extraversion. Extraversion has been found to be negatively correlated with the onset of depressive symptoms. Characteristics of people high in extraversion are sensation-seeking, adventurousness, high activity and sociability, liveliness, and assertiveness (Grav et al,

2012). The rate of depression in the general population is increasing, making it more important than ever for us to try to identify the different populations and behaviors that make us more likely to develop depression (Grav et al., 2012).

Facebook Use and Anxiety

Research focused on how anxiety relates to social media use has shed light on the impact that social media has on people suffering from social anxiety specifically. According to Farquhar and Davidson (2014), many socially anxious people often use computer-based communication as an avoidance strategy, aimed at reducing the anxiety they feel when engaging in social interactions. However, this can often lead to a phenomenon called "Facebook anxiety." This often occurs when the pressure that they already feel offline to present themselves in the best light possible is magnified through the high availability of their online persona to others on social media. While in-person, we only present ourselves to a relatively small group of people, when online, our information and identity are presented to anyone who view our profile. In addition, Facebook keeps a history of all our online behaviors and serves as an archive where any one of our friends could find our wrongdoings, thus destroying the positive image the socially anxious person has attempted to build for themselves. This is especially anxiety-provoking when there are many subgroups of their Facebook friends that may have conflicting views on social norms, and socially anxious people find themselves unable to please all of these groups (Farquhar & Davidson, 2014). Thus, they hypothesized that Facebook intensity, defined as the amount of time someone spends on Facebook, their number of friends, and how important the site is to them in general, would be a predictor of both Facebook-specific anxiety and of social anxiety

(Farquhar & Davidson, 2014). In addition, they found that social anxiety and Facebook-related anxiety are positive predictors of each other, and that women are more likely to experience both types of anxiety than men (Farquhar & Davidson, 2014).

While much research has been done on the impact of social media use on social anxiety (Farquhar & Davidson, 2014), not as much has been done regarding the relationship between other types of anxiety and social media use. For this reason, in this study, I attempted to examine the ways that Facebook use could impact a generally clinically anxious person, as determined by the GAD-7 Anxiety Scale, and the ways in which their anxiety impacted their Facebook use.

The Current Study

The purpose of this study is to examine the link between different types of Facebook use, active or passive, and mental health, looking specifically at anxiety and depression. In addition, this study seeks to determine whether or not personality, bullying, social comparison, and other factors mediate this relationship between Facebook use and anxiety/depression. We hypothesized that passive Facebook use would be positively correlated with anxiety, depression, social comparison, while being negatively correlated with extraversion. We also hypothesized that active Facebook activities would be correlated with extraversion, and negatively correlated with depression and anxiety. We extended Farquhar and Davidson's (2014) claim relating to anxiety and Facebook use to this study, and hypothesized that the Facebook behaviors related to the intensity of their Facebook use will be positively correlated with anxiety levels.

Methods

Participants

This study was conducted with 116 undergraduate students (45 men, 71 women) from Appalachian State University. Having a Facebook account was a prerequisite to participate in this questionnaire. The ages of participants ranged from 18 to 28. Of those who completed the survey, 47 (40.5%) were freshmen, 17 (14.7%) were sophomores, 31 (26.7) were juniors, 16 (13.8%) were seniors, 4 (3.4%) were 5th year seniors, and one identified their University class status as "other." IRB determined this research was exempt from review on November 24, 2015 (IRB 16-0127; see Appendix).

Procedure

Participants were recruited using Appalachian's SONA system, in which undergraduate psychology students participate in various studies in order to receive class credit. Participants completed a short online questionnaire in which those with a Facebook account were asked several Facebook-related questions, regarding the intensity of their Facebook use (i.e., time spent on Facebook, frequency of posting, number of friends). In the survey, participants also answered a depression screening (Patient Health Questionnaire-9), an anxiety screening (General Anxiety Disorder 7-item Scale), a measure of Social Comparison (Social Comparison Scale), and completed a 51-item Big 5 Model personality inventory.

Measures

Big 5 Personality Assessment. We used a 50-item version of the Big 5 Personality

Traits inventory to assess the different components of the FFM of personality. This model

includes factors such as openness to experience, conscientiousness, extraversion,

agreeableness, and neuroticism. The measure also assessed narcissism and intellect. These

traits were measured using 50 self-report items on five-point Likert-type scales which asked

them the extent to which they agreed with each statement, with answers ranging from "very

inaccurate" to "very accurate." The NEO-PI has been shown to be a reliable method of

measuring the FFM of personality. Estimates of reliability have shown strong internal

consistencies, and the test demonstrates distinctness of each personality trait as a facet of

personality (Xia, Xu, Hollon & Zhang, 2014).

General Anxiety Disorder 7-item Scale. Used as a measure of anxiety levels, the

Generalized Anxiety Disorder Scale (GAD-7) is a self-report scale with seven items that

serves as a screening tool for generalized anxiety disorder, as well as evaluating the severity

of the person's anxiety. In addition to being a measure of generalized anxiety disorder,

research has shown that this scale has good sensitivity and specificity for other types of

anxiety disorders such as panic disorder (Ryan et al., 2013). In this scale, participants are

asked to indicate the extent to which, in the past two weeks, they have experienced

symptoms indicated in statements such as "feeling nervous, anxious or on edge." Response

options are: not at all, several days, more than half the days, and nearly every day. The

possible range of scores is 0-21, and the higher the score is, the higher the level of

generalized anxiety is. Over the years, much research has confirmed the scale's psychometric

soundness and validity in both experimental and clinical settings, when given in either face-to-face or indirect (phone, computer) settings, making it valid for our computer-based study (Ryan , Bailey, Fearon & King, 2013).

Patient Health Questionnaire-9. The participants' levels of depression were measured using The Patient Health Questionnaire-9 (PHQ-9), a clinical self-report questionnaire meant to assess the severity of depression a person is experiencing. The questionnaire asks how often participants have experienced the problems which follow in the past two weeks, then lists nine depressive symptoms, such as "little interest or pleasure in doing things." The response options are: not at all, several days, more than half the days, and nearly every day. The possible range of scores is from 0 to 27, with higher scores indicating higher levels of depression (Ryan et al., 2013). Scores of 5, 10, 15, and 20 are commonly used as the cut-off points for mild, moderate, moderately severe and severe depression, respectively. The PHQ-9 has been found to have good validity and internal consistency by several different research studies. It was also found to have strong psychometric properties with data collected by both face-to-face methods and indirect methods (over the phone, computer, etc.), making it valid for use in our computer-based study (Ryan et al. 2013).

Iowa-Netherlands Comparison Orientation Scale (INCOM). This scale, developed by Gibbons and Buunk (1999), was used to measure levels of social comparison. It is a self-report measure consisting of 11 items related to specific behaviors by which we compare ourselves to others. Participants were asked how much they agreed with each statement, with response options ranging from "I disagree strongly" to "I agree strongly." The total score is found by summing the responses to each question, and two questions (6 and 10) are reverse

coded. This scale has strong reliability, as people with higher scores on the INCOM were actually found to exhibit more comparison behaviors than those who scored lower (Gibbons & Buunk, 1999). The results from this scale showed a strong positive correlation with our own measure of FB-specific social comparison, $r(115) = .56$, $p < .001$, which means that we can assume the social comparison behaviors of people in everyday life are likely to carry over into their Facebook use.

Facebook Questionnaire. In our questionnaire, we compiled several composites of items which measured active behavior, passive behavior, intensity of Facebook activity, and levels of social comparison and bullying. We created a composite of five items which measured the frequency that participants participated in different active uses of Facebook, such as, "comment[ing] on a post," or "post[ing] a photo." I also created a composite of three items measuring participants' preference for different active Facebook activities, including "posting new content on Facebook."

We created another composite of eight items that reflected the types of photos that the participant has posted on Facebook, which is an active behavior. This composite included options such as "yourself," "family," "friends," and "food." Another composite that was created aimed to assess the frequency that participants posted each of these types of photos on Facebook, containing eight items.

There was also a composite of seven items created to identify areas in which participants checked Facebook, an activity that reflects the intensity of Facebook activity (Activity Level) of each participant. Options on this composite include "home," "class," and while "driving." Another composite of four items aimed to assess how often someone

communicated with different groups of people on Facebook, a measure of both activity level

and active behavior. The groups of people in this composite included "friends," "coworkers,"

and "strangers." For our measures of passive behavior, we created several more composites,

including one composed of 6 items which assessed the frequency in which participants

participated in various passive Facebook activities. Another looked at the participants'

interest in various passive Facebook activities, including "view[ing] your own profile," and

"find[ing] news information/articles." Other composites, containing 6 items each, measured

the the extent to which participants compared themselves to others on Facebook and how

often this occurred. These composites included items such as "After viewing Facebook, I feel

as if the social lives of others are better than mine," and "After viewing Facebook, I feel as if

the achievements of others are better than mine." Finally, we created a composite of 3 items

that measured how often someone had felt bullied while on Facebook, with items such as

"How often have you had an unkind comment/post posted about you by someone else?" and

" How often have you felt bullied on FB?"

Results

The results of bivariate correlations of the Big Five (NEO-PI) personality traits,

Facebook use, depression, anxiety, bullying, and social comparison are given in Table 1,

along with correlation coefficients among these same variables. Correlations between

specific Facebook behaviors and the five factors of personality are listed in Tables 2, 3, 4, 5,

and 6. Sample sizes varied between the individual questionnaire items, but the minimum

number across all variables was 113.

As can be seen in Table 1, depression is significantly correlated with anxiety, $r(116)$ = .74, $p < .001$; FB bullying, $r(116)$= .41, $p < .001$; social comparison, $r(116)$ = .36, $p < .001$; Facebook-specific social comparison, $r(115)$= .37, $p < .001$, and neuroticism, $r(116)$ = .56, $p < .001$, in a positive direction. Depression is significantly correlated with extraversion, $r(116)$ = -.31, $p =$ .001, in a negative direction. However, our hypothesis regarding active/passive Facebook use and Depression was not supported, as there was no significant relationship between the two.

Also seen in Table 1, anxiety was also positively correlated with social comparison, $r(116)$ = .36, $p < .001$; Facebook-specific social comparison, $r(115)$ = .38, $p < .001$; and neuroticism, $r(116)$ = .66, $p < .001$, confirming our hypotheses regarding these variables. However, our hypotheses regarding the relationship between Facebook activity level and anxiety were not supported, as there was no significant correlation between the two. Anxiety was also found to be negatively correlated with Extraversion, Conscientiousness and Intellect.

Passive Facebook use was found to be positively correlated with social comparison, $r(116)$ = .49, $p < .001$; as well as Facebook-specific social comparison, $r(115)$ = .40, $p < .001$. However, our hypothesis that passive FB use would be negatively correlated was not supported.

None of our hypotheses regarding active FB use were supported in this data. However, one interesting finding was that active FB use and passive FB use were significantly and positively correlated, $r(116)$ = .76, $p < .001$. Another unexpected finding

regarding active FB use was that it is positively correlated with social comparison, $r(116) =$ .39, $p < .001$, which went directly against our hypothesis.

In addition to the correlations regarding social comparison that were reported above, social comparison was found to be positively correlated with neuroticism, $r(116) = .3$, $p = .001$, and negatively correlated with conscientiousness, $r(116) = -.27$, $p = .003$. While extraversion and social comparison were negatively correlated as hypothesized, $r(116) = -.17$, $p = .069$, the relationship between these two variables was not significant.

As Table 2 illustrates, very few of our hypotheses regarding specific Facebook behaviors and personality traits were supported. However, agreeableness was found to be positively correlated with posting pictures of friends, $r(116) = .2$, $p = .028$, and extraversion was found to be positively correlated with the number of friends one has on FB, $r(113) = .23$, $p = .013$.

Discussion

While many of our hypotheses regarding active and passive Facebook use were not supported, our results align with other research on bullying, social comparison, and their connection to Facebook comparison. As was suggested in the research, depression and being bullied on Facebook were positively correlated. This goes to show that interactions online could potentially have a negative impact on life outside of Facebook as well. Those who are bullied on Facebook may feel as if they cannot escape the negativity of their peers, thus making them at a higher risk of developing depression as a result of their Facebook use.

In addition, social comparison, both general and Facebook-specific, were found to have a positive relationship with depression. When people compare themselves with others and find themselves lacking, it can have a negative effect on their self esteem and self-worth, making them more at risk for developing depression. While this is true in real-world situations, the fact that Facebook-specific social comparison is also positively correlated with depression helps to support our hypothesis regarding Facebook depression and social comparison as a contributing factor.

In addition, the more exploratory portion of this study concerning the phenomenon of Facebook anxiety revealed interesting preliminary results. Anxiety was found to be positively correlated with Facebook-specific social comparison, which could potentially serve as a mediator between anxiety and passive Facebook use. Further research is needed to determine whether social comparison could be a mediator between these two variables.

One particularly interesting result from this study was the fact that active and passive Facebook use exhibited a moderate to high significant positive correlation ($r = .67$), even though these constructs were expected to exist as opposites. One reason this may have occurred is because most Facebook users, whether or not they are experiencing depression or anxiety, use both passive and active behaviors. Thus, if one uses Facebook in any capacity, they are likely engaging in both active and passive behaviors.

Another aspect of the study that did not meet with much success was our attempts to relate specific Facebook behaviors to the five personality factors. The only hypothesized relationship that was supported was between the number of Facebook friends someone had and their level of extraversion, which exhibited a significant positive correlation. This meant

that those with higher levels of extraversion typically had more friends on Facebook. In addition, we found that neuroticism was significantly positively correlated with depression, anxiety, and Facebook-specific and general social comparison, which support the previous research on this topic. Another, unexpected relationship was the significant positive correlation between neuroticism and being bullied on Facebook. Thus, we can see that high levels of neuroticism are related to being more susceptible to depression, anxiety, and bullying on Facebook, as well as negatively comparing yourself to others in real-life settings and when using Facebook.

Because of our method's limited findings regarding the connections between personality and Facebook behaviors, it may be possible that the way that we operationalized these behaviors was problematic. This needs to be reconsidered in further research to in order to better assess the particular ways that people of certain personality types typically use Facebook. For example, it could be looked at in terms of how the average agreeable person uses FB and how that differs from the average disagreeable person.

Limitations and future directions

It will be important for future iterations of this study to look more closely at the way in which gender could impact these relationships. For example, in Simoncic et al.'s (2014) study, it was found that when women who were higher in neuroticism and had higher levels of Facebook activity had lower levels of depression, which was the exact opposite of their hypothesized results. These results were not seen in men, even those who were also high in neuroticism, or women who had average or below average levels of neuroticism (Simoncic et al., 2014).

As was made evident by the results regarding active and passive behaviors, a future addition to this study could be to find a better way to operationalize the difference between these two types of behaviors. It may be useful to examine this in terms of preference for behavior rather than frequency. For example, instead of asking "when on Facebook, how often do you view or post comments on other posts?", we could ask "when using Facebook, do you prefer to view others posts or comment on others posts?", or other such questions. This could target the person's preference for active or passive behaviors rather than just gathering the frequencies for each type of behavior.

Because of our method's failure to capture any connections between personality and specific Facebook behaviors, it may be possible that the way that we operationalized these behaviors was problematic. This needs to be reconsidered in further research to in order to better assess the particular ways that people of certain personality types typically use Facebook. For example, it could be viewed in terms of how the average agreeable person uses FB and how that differs from the average disagreeable person.

As previously mentioned, it is entirely possible that social comparison could be a mediator between passive Facebook use and depression. This would mean that passive use, when used in a way that involved negatively comparing oneself to others, could be connected to higher levels of depression. As this would bring our findings into alignment with previous research on negative social comparison on Facebook (Tandoc et al., 2015), it is vital for future continuations of this study to take this potential relationship into account.

Conclusions and implications

Though Facebook is not solely at fault for the development of depressive symptoms, certain ways of using the site are likely to blame for the Facebook depression phenomenon. If someone uses Facebook in a way that leads to social comparison, negative self-evaluation, rumination, envy, or general feelings of inadequacy, it puts them at a greater risk of developing depressive symptoms. In addition, Facebook users who are already depressed are at a much higher risk of developing additional depressive symptoms as a result of Facebook use. It is important to recognize these various things that make use vulnerable to Facebook depression so that we can learn how to use Facebook in ways that will bring about positive results rather than negative ones.

If the general population is educated on this issue, perhaps the phenomenon of Facebook depression could start to diminish. Perhaps, if users become aware of these 'risky' behaviors, they can recognize them in themselves while using Facebook. For example, if users are on Facebook looking at their newsfeeds and begin to compare themselves with others in a negative way that makes them feel inadequate or envious, they could choose to log off of Facebook and remove themselves from an activity that is related to viewing themselves negatively. By recognizing when they are slipping into that mode of negative self-evaluation and stopping ourselves, Facebook users can practice behaviors that promote good mental health for everyone. Facebook and all social media sites have good uses that can promote our happiness. It is important that users start learning what can be done that can be harmful, what can be done to help ourselves, and how to act in ways that are beneficial to the

health of everyone. Instead of worrying about social attractiveness (Tandoc et al., 2015), social media users could begin to worry more about mental health.

Another way to potentially decrease Facebook depression is limit the amount of heavily edited, positive information that they post on Facebook. When presented with an idealized, unrealistic version of someone online, Facebook users will subconsciously compare themselves to this person (Feinstein et al. 2013), and if the standard they portray is impossible to reach, the others will leave feeling inferior. If social media users were more realistic about the nature of their lives on social media, perhaps people wouldn't be able to make such negative self-evaluations as a result of social comparison. Instead of posting about only when things go right, maybe it would be better to also include when things don't go quite as planned. This could be as simple as posting a status about missing the bus, or as serious as sharing a battle with cancer on social media. Using social media as a place where users can share both their joys and struggles will benefit the mental health of all users and minimize the negative effects that Facebook can potentially have on mental health.

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Appendix

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This study involves minimal risk and meets the exemption category cited above. In accordance with 45 CFR 46.101(b) and University policy and procedures, the research activities described in the study materials are exempt from further IRB review.

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2. PI
responsibilities: http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI20
Responsibilities.pdf

3. IRB forms: http://researchprotections.appstate.edu/human-subjects/irb-forms]

CC:

Dr. Rose Mary Webb

Table 1

Overall Correlations

	O	C	E	A	N	AC	P	Dep	Anx	SC	FB SC
C	.02										
E	.15	.43*									
A	.26*	.39*	.25*								
N	.08	-.50*	-.41*	-.17							
AC	.04	.02	.04	.06	.18						
P	-.04	.06	.02	.09	.07	.67*					
Dep	.15	-.44*	-.31*	-.12	.56*	.06	.05				
Anx	.12	-.38*	-.30*	.01	.66*	.15	.09	.74*			
SC	-.11	-.27*	-.17	-.13	.30*	.39*	.49*	.36*	.36*		
FB SC	.05	-.35*	-.25*	-.04	.34*	.34*	.40*	.37*	.38*	.56*	
Bul	.04	-.02	-.16	-.13	.20*	.24*	.15	.41*	.32*	.19*	.31*

*. Correlation is significant at the 0.05 level (2-tailed).

Note: O = Openness. C = Conscientiousness. E = Extraversion. A = Agreeableness.   N = Neuroticism. AC = Active Facebook behaviors. P = Passive Facebook behaviors. Dep = Depression. Anx = Anxiety. SC = Social comparison. FB SC = Facebook-specific social comparison. Bul = Bullied on Facebook.

Table 2

Openness Correlations

	O	Finding news articles	Interest in current event updates	Posting photos of art	Posting photos of locations
Finding news articles	.10				
Interest in current event updates	.13	.73**			
Posting photos of art	.16	.10	.14		
Posting photos of locations	.02	.38**	.35**	.45**	
Posting photos of food	.00	.15	.23*	.50**	.62**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 3

Conscientiousness Correlations

	C	Check FB in class	Check FB in social settings	Check FB on a date	Check FB while driving	Check FB at meals
Check FB in class	.02					
Check FB in social settings	.03	.32**				
Check FB on a date	-.17	.18	.30**			
Check FB while driving	.02	.12	.11	.14		
Check FB at meals	-.08	.40**	.47**	.27**	.09	
Check FB at work	-.11	.32**	.14	.21*	.37**	.17

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4

Extraversion Correlations

	E	Comment on other's posts	Post a status	Share your location	View own profile	Post new content	Number of FB friends	Number of people interacted with
Comment on other's posts	-.01							
Post a status	.11	.53**						
Share your location	-.01	.33**	.46**					
View own profile	.04	.52**	.39**	.34**				
Post new content	.01	.51**	.74**	.37**	.40**			
Number of FB friends	.23*	.24*	.13	.09	.29**	.13		
Number of people interacted with	.15	.04	.02	.00	.07	.09	.01	
Number of friends communicated with regularly	.09	.13	.18	.10	.16	.14	.01	.36**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5

Agreeableness Correlations

	A	Comment on other's posts	Post photos of family	Post photos of friends	Post photos of sig. other
Comment on other's posts	.05				
Post photos of family	.17	.37**			
Post photos of friends	.20*	.44**	.82**		
Post photos of significant other	.17	.19*	.37**	.40**	
Post TBT/ Timehop photos	-.05	.59**	.28**	.37**	.16

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6

Neuroticism Correlations

	N	Viewing others' profiles	Viewing own profile
Viewing others' profiles	.00		
Viewing own profile	.14	.60**	
Bullied on Facebook	.17	.10	.00

**. Correlation is significant at the 0.01 level (2-tailed).