

#STORYOFMYLIFE: PERSONALITY CHARACTERISTICS ASSOCIATED
WITH ATTENTION SEEKING BEHAVIOR ONLINE AND SOCIAL MEDIA
USE IN EMERGING ADULthood

by

CHLOE BERRYMAN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of Sciences
and in the Burnett Honors College
at the University of Central Florida
Orlando, Florida

Fall Term 2014

Thesis Chair: Charles Negy, Ph.D

Abstract

The intent of this study was to explore to what extent loneliness, need for belonging, and parent-child relationships relate to time spent communicating via social media. The study also focused on predicting social media integration and vaguebooking, an attention seeking behavior on social media. Results from a sample of 471 college students indicated that need for belonging was related to more time spent communicating with friends online. Parent-child relationship, social anxiety, and loneliness were not significantly correlated with social media use. Need for belonging predicted social media integration and loneliness predicted vaguebooking. Histrionic symptoms significantly predicted both social media integration and vaguebooking behaviors, indicating that for those with histrionic traits, social media may reinforce attention seeking behaviors.

Table of Contents

Introduction.....	1
Benefits of Social Media.....	1
Drawbacks of Social Media.....	2
Review of Literature	3
Face to Face Interactions and Social Media	3
Loneliness, Social Anxiety, and Need for Belonging	3
Empathy	5
Histrionic Personality Disorder.....	6
Parent-Child Relationships	6
Devotion to School	7
The Current Study.....	9
Methods.....	11
Participants.....	11
Measures	11
Demographics	11
Vaguebooking	11
Online and In-Person Friendships.....	12
Family Environment Scale.....	12
Parent-Child Relationship.....	12
The Multidimensional Scale of Perceived Social Support	13
Brief Histrionic Personality Scale.....	13
Need to Belong Scale.....	14

UCLA Loneliness Scale- 3.....	14
Interpersonal Reactivity Index	14
Social Media Use Integration Scale	14
Marlowe-Crowne Social Desirability Scale – Short Form	15
Results.....	16
Hypothesis Testing	16
Exploratory Analyses	18
Discussion.....	22
Social Media Integration and Vaguebooking	22
Personality Characteristics.....	24
Parent Child Relationship	26
Academic Performance	27
Limitations and Future Research	27
Implications.....	29
References.....	30

List of Tables

Table 1: <i>Demographic Characterizes of Participants</i>	16
Table 2: <i>Basic Descriptive Statistics of Cronbach Alpha</i>	17
Table 3: <i>Intercorrelations of Study Variables</i>	18
Table 4: <i>Predicting Social Media Integration</i>	20
Table 5: <i>Predicting Vaguebooking</i>	21

Introduction

Social media are virtual networks and communities that allow for content creation, exchange, and sharing (Ahlqvist, Bäck, Halonen, & Heinonen, 2008). Content could be anything from uploading a picture to sharing a text post. Over the last several years, the usage of social networking sites has increased. In fact, 73% of all internet-using adults use social networking sites, with Facebook being the most common (Duggan & Smith, 2013). Among teenagers ages 12-17, 81% used social networking sites in 2012, up from only 55% in 2006 (Madden, 2013). Further, 67% of all teen social media users are reported to visit social media websites at least once daily (Madden, 2013). Among teens, Facebook is also the most popular. The intent of this study is to explore whether personality characteristics and parent-child relationship relate to social media use among emerging adults.

Benefits of Social Media

Social media appears to make people feel better about themselves. In one study, participants who spent time editing their Facebook page before taking a self-esteem survey typically reported higher self-esteem than a control group that did not access their Facebook pages (Gentile, Twenge, Freeman, & Campbell, 2012). Having more Facebook friends was associated with increased self-efficacy (Krämer & Winter, 2008) and subjective well-being (Kim & Lee, 2011). Kim and Lee determined that a visualization of the amount of Facebook friends a person has affirmed their self-worth by providing a way to view their social connections. Among extroverts, increased internet use was associated with increased self-esteem as well as decreased perceptions of loneliness (Kraut & Winter, 2002). Those with adequate social support demonstrated that the internet can serve as a tool for enhancing their relationships (Kraut & Winter, 2002).

Among adults, it was found that social media can be used to answer questions or solve problems by posting to an entire network of acquaintances (Vitak & Ellison, 2013). This was considered a benefit because it yielded faster answers from a network of people with a variety of experiences and knowledge (Vitak & Ellison, 2013). This type of information exchange can be found in adolescents as well.

Drawbacks of Social Media

Although social interactions on the internet have their benefits, web communication is a double edged sword. Social media predicted peer competition on a small scale (Ferguson, Muñoz, Garza, & Galindo, 2014). In the same study, peer competition was associated negatively with life satisfaction. Ferguson et al. suggested that social media may facilitate this competition in some cases. An increase in peer competitiveness as well as a desire to be accepted by peers can lead to “Facebook depression,” in which users exhibited symptoms of clinical depression after spending time on social media (O’Keeffe & Clarke-Pearson, 2011). This peer competitiveness may cause some users of social media to selectively present more positive emotions over negative ones (Qiu, Lin, Leung, & Tov, 2012). A study of college students by Davila et al. (2012) indicated that those who spent their time on social networking participating in negative interactions, such as discussing polemic topics, were more likely to experience a greater depressed mood.

Review of Literature

Face to Face Interactions and Social Media

Despite the omnipresence of social media in adolescent life, it seems that face-to-face interactions remain a highly important mode of communication. In a survey of pre-adolescent girls, almost 90% of participants rated their physical, in-person friends as more important than their online friends (Pea et al., 2012). Many adolescents used social networking sites in order to maintain contact with in-person friends, among other social motives. (Reich, Subrahmanyam, & Espinoza, 2012). When asked to list up to ten social networking site friends and ten face-to-face friends, over half the friends listed were both in person and online friends, with respondents claiming to personally know 95% of their social network friends personally. Among adolescent girls, in-person friendships were viewed more positively, even by those who spent more time interacting with media (Pea et al., 2012).

More face-to-face interactions with friends possibly indicates a better adjusted child or adolescent. Pea et al. (2012) found that more face-to-face interactions were associated with a higher degree of social success. In their study of adolescents aged 12 to 15, Smahel, Brown, and Blinka (2012) found that having more face-to-face interactions with friends predicted higher self-esteem and seemed to curb time spent online and even signs of compulsive internet usage.

Loneliness, Social Anxiety, and Need for Belonging

Those whose in-person relationships suffer may seek comfort in social media. In a survey of 300 adults, face-to-face communication was a strong predictor of feelings of connectedness (Ahn & Shin, 2013). In this regard, relationships on social media mirrored those that exist in

person. University students who spent more time on Facebook cultivated more Facebook friends (Sheldon, 2008). In a study of interactions between types of Facebook use and loneliness, Jin (2013) found that adult participants were less likely to be lonely when they had a larger number of Facebook friends and these online friends overlapped with face-to-face friends. Those who were less likely to want to communicate in person are prone to having fewer Facebook friends and are more likely to use Facebook to curb loneliness (Sheldon, 2008). These people were less inclined to use Facebook in order to make new friends (2008). Moreover, those who experienced more social loneliness did not have as many friends as those who do not experience social loneliness, whether they were face-to-face or online (Sheldon, 2013).

The quality of a person's interaction with social media also has an influence on loneliness. Jin (2013) found that the more communicating activities individuals participated in, the less likely they were to experience loneliness. Examples of communicating activities on social media were responding to comments or initiating communication with someone else. The communicating activities of individuals experiencing social loneliness were less likely to include self-disclosure, especially to an online only friend (Sheldon, 2013). However, communication activities on social media were not essential to decreasing loneliness. When asked to post more Facebook statuses than usual, participants reported a decrease in loneliness in comparison to their baseline. Curiously, regardless whether or not friends liked or commented on the status, the participants felt more connected to their friends (Deters & Mehl 2012).

Caplan (2007) found that those who were lonely were more likely to participate in problematic internet use, including gambling. However, once social anxiety was taken into account, the association with loneliness became insignificant, suggesting that loneliness may be a symptom of social anxiety rather than a predictor in itself. As with lonely individuals, those with

social anxiety also had fewer friends. In a study of 62 university students, social anxiety did not predict frequency of Facebook use (Fernandez, Levison & Rodebaugh, 2012). Instead, there were profile page differences between participants with social anxiety and those without. Those who scored higher on social anxiety included more information about interests and activities in their profile, suggesting that their lack of social relationships may result in a greater number of individual interests more easily displayed online than spoken about in person (Fernandez et al., 2012). Perhaps their increased divulgence of personal information reflected their greater desire to reach out to others.

The need to belong also is related to loneliness. In a study of 531 Korean adults, participants who felt a strong sense of belonging were less likely to feel lonely, potentially because of a greater degree of perceived social support (Johnston, Tanner, Lalla & Kowalski, 2014). Koreans who blogged more were more likely to feel these benefits. Similarly, first year college students who felt a low sense of belonging in their new environment were more likely to turn to social networking sites in order to maintain previously existing connections such as family or high school friends (Strayhorn, 2012).

Empathy

Facebook is a complement to face to face interactions when used moderately. Chan (2014), found that, in small quantities, Facebook use decreased some of the detrimental effects of neuroticism on empathy in social situations. On the other hand, when Facebook was used in larger amounts, empathetic responses to others were weakened (Chan, 2014). Textual information is enough to illicit an empathetic reaction from social media users (Kramer, Guillory, & Hancock, 2014). When news feed content in Facebook was altered by a researcher, those with more negative posts on their news feed posted fewer positive words to their profiles (Kramer et

a., 2014). When witnessing cyberbullying, extraverted users scoring higher on empathy were more likely to come to the defense of the victim (Freis and Gurung, 2013).

Histrionic Personality Disorder

Individuals with histrionic characteristics tend to have more Facebook friends. Those who used Facebook more frequently, and those who used Facebook for impression management, were more likely to show signs of histrionic personality disorder (Rosen et al., 2013). In addition, believing that emotional support is available online predicted more histrionic symptoms (Rosen et al., 2013).

Parent-Child Relationships

Research suggested that an adolescent's problematic relationship with one or both parents could indicate loneliness. When Eleventh Grade students felt that their parents were positive and accepting of them, they were less likely to suffer from parent-related and peer-related loneliness (Scharf, Wiseman, & Farah 2011). de Minzi (2006) found similar results in a sample of 8 to 12 year old children. When children felt more accepted from both parents, they were less likely to experience loneliness (de Minzi, 2006).

Research suggests that there is a relation between the relationship adolescents share with their parents and the quality of the relationships that they have with their friends. The parent-child relationship had more of an impact on friendships in early adolescence, and decreased in influence over time, signifying the growing importance of friendships in later adolescence (de Goede, Branje, Delsing, & Meeus 2009). Research on mother-adolescent pairs suggested that a deficiency in the relationship with a parent could be offset by a stronger relationship with a friend (Sentse & Laird, 2010). This finding may suggest that adolescents who experienced a poor relationship with parents may turn to face-to-face friends or online friends for support. However,

those with a higher quality relationship with their parent also had more satisfaction within their network of friends (Riggio, 2004). Apparently, feeling disconnected from parents may lead some adolescents to increase; however, the perceived quality of online relationships may be enhanced by positive parent-child relationships.

Devotion to School

For some students, social networking sites can be distracting. In a study of American and European university students, participants who spent more time on social networking sites spent less time studying and have lower GPAs (Karpinski, Kirschner, Ozer, Mellott, & Ochwo 2013). Rosen, Carrier, and Cheever (2013) observed middle, high school, and university students in a simulated study session lasting for 15 minutes. Participants were on task an average of ten minutes (2013). Multi-tasking was more common in cases where distracting technology was readily available. American students who did not multitask with social networking sites while studying were more likely to perform well in school (Karpinski, Kirschner, Ozer, Mellott, & Ochwo 2013). Even without multitasking, more time and frequency of checking Facebook was predictive of college students' overall GPA (Junco, 2011). Specifically, using Facebook chat was predictive of a lower GPA, potentially because of the amount of attention required for this task.

That said, in some cases, social media is associated with positive student outcomes. Among first generation college applicants, appropriate support from Facebook friends as well as college related information gathered from social media were related to higher confidence in the college application process. For these adolescents, having Facebook friends who were currently enrolled in college courses or graduated from college increased their expectation for college success (Wohn, Ellison, Khan, Fewins-Bliss, & Gray, 2013). Among college students using Facebook, those who were more likely to use it to check on friends or share links also were more

likely to have a higher overall GPA than those using Facebook for chat (Junco, 2011).

The Current Study

Numerous studies examined the relationships among loneliness, social anxiety, need to belong, school performance and social media, however, little research was conducted on the relationship between social networking usage and parent-child relationship. My specific research questions were:

- Does quality of parent-child relationship predict time spent communicating online?
- Do loneliness, social anxiety, and need for belonging predict time spent communicating online?
- Do social media integration and vaguebooking predict school performance?
- Will a larger range of personality variables, along with parent-child relationship, predict social media integration and vaguebooking?

Because logically, problematic relationships with parents may serve as a catalyst for young adults to seek relationships outside the family (deMinzi, 2006; Sentse & Laird, 2010), it was hypothesized that parent-child conflict would correlate significantly and positively with increased time spent on-line communicating with friends and acquaintances. Also, communicating via social networking was shown to reduce feelings of loneliness (Jin, 2013) and increase feelings of belonging (Strayhorn, 2012) in adults. Thus, it also was hypothesized that higher levels of loneliness, social anxiety, and need for belonging would correlate positively with time spent on-line with friends and acquaintances. A third hypothesis was that engagement with social media and vaguebook would correlate negatively with school performance (as measured by grade-point-average [GPA]). This last hypothesis was made as past research suggests that students who spent more time social networking had lower GPAs and study for less time (Karpinski, Kirschner, Ozer, Mellott, & Ochwo 2013).

Finally, it was expected, but not formally hypothesized, that the study variables taken together would significantly predict both social media integration and vaguebooking.

Methods

Participants

Participants were 471 undergraduates from the University of Central Florida who completed questionnaires for this study in exchange for SONA credit for class. Participants included 131 males and 338 females who were between the ages of 18 and 46 years old. However, participants were most often 18 year olds, who comprising 59.3% of the participant population. This group was followed by participants who were between the ages of 19 and 23 (32.8%), and 24 and up (7.9%). Participants were predominantly freshmen (n = 286; 60.7%), followed by sophomores (n = 72; 15.3%), then juniors (n = 64; 13.6%), and then seniors (n = 46; 9.8%). The sample was 59.9% White, 16.6 % Latino or Hispanic, 10.2% African American or Black, 6.6% Asian American, and 6.2% Other.

Measures

Demographics

Participants were asked their age, gender, ethnicity, religion, highest level of education, grade point average, and parents' highest level of education.

Vaguebooking

“Vaguebooking” was a term used to describe a type of status update or post on social media that is reassurance-seeking. It is defined in the Urban Dictionary as “An intentionally vague Facebook status update that prompts friends to ask what's going on, or is possibly a cry for help” (2009). Participants were asked three questions developed by the researcher to determine whether or not they participated in “vaguebooking” behaviors (e.g. 'I post vague updates that allude to something else on my social networking account'). Participants could select an answer between 1 (never) and 4 (frequently). The higher the average score, the higher the degree to

which the participant participated in “vaguebooking”.

Online and In-Person Friendships

Participants were asked four questions developed by the researcher regarding their in person and online friends in order to determine whether a preference for online social interaction over face-to-face interaction exists. Two required a numeric answer (‘How many hours do you spend communicating with friends online?’) and two were True-False (‘I know most of my online friends in person’). These questions were scored individually.

Family Environment Scale (FES; Moos, 1974; Moos & Moos, 1994)

The FES is comprised of 90 True-False self-report questions that assessed socio-environmental family characteristics. The FES incorporates ten subscales that assess three basic dimensions related to the social climate of the participant's family. For the current study, the 9-item Cohesion subscale and the 9-item Conflict subscale were administered to participants. The Cohesion subscale assessed the degree to which family members provide help and support to each other. The conflict subscale evaluated the degree of conflict that the family was experiencing. A larger sum of scores in each subscale indicated a higher degree of perceived family cohesion and conflict individually. The total sum of scores could range from 0 to 9.

Parent-Child Relationship

To measure participants’ perceptions of the quality of their relationship with their parents, participants completed the nine items of the Parent-Child Conflict component of the Family Dysfunction subscale from the Personality Inventory for Youth (PIY; Lachar & Gruber, 1995). Participants indicated whether the statements of the Parent-Child Conflict were True or False. An example item was, “I often wonder if my parents love me.” The total sum of scores could range from 0 to 9. A larger sum of scores indicated a greater degree of perceived dysfunction.

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988)

The MSPSS measured the perceived support that participants receive from family, friends, and significant others. Participants were assessed on 12 items using a 7-point Likert-type scale with response options ranging from 1 (very strongly disagree) to 7 (very strongly agree). The individual scores were averaged into a total score for analysis purposes, with higher scores reflecting a higher degree of perceived support.

Short Form Social Interaction Anxiety Scale and Social Phobia Scale (SIAS-6 and SPS-6; Peters, Sunderland, Andrews, Rapee, & Mattick, 2012)

The SIAS-6 and the SPS-6 are short form versions of the SIAS and SPS. These scales are set of companion measures that assessed social interaction anxieties and scrutiny fears. Each scale consists of six items that assesses the degree of social anxiety or social phobia experienced using a 5-point Likert-type scale. Response options range from 0 (not at all characteristic or true of me) to 4 (extremely characteristic or true of me). Scores from both scales were averaged together for one composite social anxiety/social phobia score. Total scores ranged from 0 to 4 with higher scores reflecting a greater degree of social anxiety and social phobia collectively.

Brief Histrionic Personality Scale (BPHS; Ferguson & Negy, 2014)

To assess symptoms consistent with Histrionic Personality Disorder, the BPHS was included in the set of questionnaires. The BPHS consisted of 11 items related conceptually to Histrionic Personality Disorder symptoms. Two subscales were incorporated to assess seductiveness and attention seeking. The measure used a 4-point Likert-like scale with response options ranging from 1 (never true) to 4 (always true). Possible average scores ranged from 0 to 4 with a higher average reflecting more histrionic symptoms.

Need to Belong Scale (NTB; Leary, Kelly, Cottrell, & Schreindorfer, 2005)

To assess participants' need for belonging, they completed the NTB, which is a 10-item questionnaire that measures participants' need to belong to different social groups. The measure used a 5-point Likert-like scale, with response options ranging from 1 (strongly agree) to 5 (strongly disagree). Possible average scores ranged from 1 to 5 with higher scores reflecting a stronger need to belong.

UCLA Loneliness Scale- 3 (Russell, 1996)

The UCLA Loneliness Scale consisted of 20 items that assessed the level of loneliness experienced by the participant, characterized by a disparity between actual and desired social interaction. Participants responded to items using a 4-point Likert-type scale that offered responses ranging from 1 (never) to 4 (always). Possible average scores ranged from 1 to 4 with higher scores indicating a greater degree of loneliness.

Interpersonal Reactivity Index (IRI; Davis, 1983)

The IRI was a measure of empathy composed of four scales that measure the cognitive and affective aspects of empathy. Each subscale contained seven items that participants were asked to rate using a five item Likert-type scale in with responses ranging from 0 (does not describe me well) to 4 (describes me very well). Only the seven item empathy-concern subscale was used in this study because it was deemed the most applicable to this study's goals. This subscale measured the tendency to express "other-oriented" feelings of compassion, concern, and sympathy. Average total scores could range from 0 to 4. A higher average score indicated greater empathy.

Social Media Use Integration Scale (SMUIS; Jenkins-Guarnieri, Wright, & Johnson 2012)

The SMIUS consisted of ten items divided into two subscales that concentrated on the

degree to which social media was embedded into participants' routines and social behaviors as well as the degree to which participants are emotionally connected to social media use (the current study collectively referred to these components as 'social media integration'). This measure used a 6-point Likert-type scale, with response options ranging from 1 (strongly disagree) to 6 (strongly agree). Questions from this scale were adapted for the current study to refer to any social networking site. Total average scores could range from 0 to 6, with higher scores indicating a higher degree of social media integration.

Marlowe-Crowne Social Desirability Scale – Short Form (M-C SDS-SF; Reynolds, 1982)

The 13-item M-C SDS-SF was an abbreviated version of the M-C SDS. The True-False questionnaire measures the participants' need to be perceived as desirable to others. Total scores could range from 0 to 13. The items were summed with a higher score reflecting a greater tendency to respond to questions in a manner that casts the participant in a positive light.

Results

Hypothesis Testing

Table 1 shows the demographic information for all participants. Table 2 shows the means and standard deviations for all study variables. To test the hypotheses, a series of zero-order correlations were performed on the data. It was hypothesized that higher parent-child conflict would be correlated with time spent interacting with friends on-line. The data did not support the hypothesis. Parent-child conflict did not correlate significantly with time spent communicating with friends on-line ($r [441] = -.01, ns$).

Table 1: *Demographic Characterizes of Participants*

Characteristic	N (%)
Gender	
Females	338 (71.8%)
Males	131 (27.8%)
Missing data	2 (< 1%)
Age*	
18-19 years	352 (74.4%)
20-21 years	56 (11.9%)
22-23 years	24 (5.1%)
24-25 years	14 (3%)
26 years and up	23 (4.9%)
Missing data	2 (< 1%)
Class standing	
Freshman	286 (60.7%)
Sophomore	72 (15.3)
Junior	64 (13.6)
Senior	46 (9.8)
Missing data	3 (< 1%)
Race/ethnicity	
White	282 (59.9%)
Latino	78 (16.6%)
African American	48 (10.2)
Asian American	31 (6.6%)
Other	29 (6.2%)
Missing data	3 (< 1%)

*Mean age of all participants = 19.66 ($SD = 3.91$)

Table 2: *Basic Descriptive Statistics of Cronbach Alpha*

Variable	<i>M</i>	<i>SD</i>	α	Possible range	Observed range
Online Communication (in hours)	2.20	2.26	-	-	0-15
Social Media Integration (SMUIS)	3.05	0.80	.89	1-5	1-5
Vaguebooking	1.83	0.75	.79	1-4	1-4
Need for Belonging	3.36	0.70	.80	1-5	1.3-5
Social Anxiety	0.68	0.64	.90	0-4	0-3.4
Loneliness	2.18	0.51	.93	1-4	1.1-3.6
Family Dysfunction (PIY)	2.08	2.35	.84	0-9	0-9
Family Environment Cohesion	6.42	2.47	.80	0-9	0-9
Family Environment Conflict	3.42	2.47	.79	0-9	0-9
Histrionic Symptoms	2.14	0.49	.81	1-4	1.00-3.73
Social Support	5.40	1.18	.93	1-7	1.00-7.00
Empathy (IRI)	3.97	0.65	.80	1-5	1.71-5.00

It also was hypothesized that loneliness, social anxiety, and need to belong would correlate positively with spending more time interacting with friends on-line. The data partially supported the hypothesis. Time spent on-line correlated significantly with need to belong (supported ($r [455] = .25, p < .001$). However, time spent on-line did not correlate significantly with loneliness or social anxiety ($r [448] = -.02$ and $r [457] = -.08, ns$, respectively).

The third hypothesis was not supported. Neither social media integration nor vaguebooking correlated significantly with academic grade-point-average (GPA) ($r_s = [460] = -.01$ and $-.06, ns$, respectively).

Table 3: *Intercorrelations of Study Variables (N=471)*

VARIABLE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) SMTime	---											
(2) SMUIS	.38 ^c	---										
(3) VBS	.25 ^c	.43 ^c	---									
(4) NTB	.15 ^b	.27 ^c	.11 ^a	---								
(5) SocAnxPho	-.08	.03	.03	.23 ^c	---							
(6) UCLA-L	-.02	.05	.14 ^b	.20 ^c	.44 ^c	---						
(7) PIY	-.01	-.01	-.00	.06	.18 ^c	.33 ^c	---					
(8) FESCOH	.02	.01	.00	-.04	-.18 ^c	-.29 ^c	-.69 ^c	---				
(9) FESCON	.05	.05	.10 ^a	.08	.11 ^b	.25 ^c	.54 ^c	.55 ^c	---			
(10) BHPS	.19 ^c	.28 ^c	.27 ^c	.17 ^c	-.15 ^b	-.11 ^a	-.01	.05	.20 ^c	---		
(11) MSPSS	.10 ^a	.05	-.05	.11 ^a	-.19 ^c	-.49 ^c	-.33 ^c	.36 ^c	-.26 ^c	.02	---	
(12) IRI	-.06	-.04	-.07	.12 ^a	-.16 ^c	-.17 ^c	-.01	.09	-.08	-.08	.28 ^c	---
Mean	2.20	3.05	1.83	3.36	0.68	2.18	2.08	6.42	3.42	2.14	5.40	3.97
Standard deviation	2.26	0.80	0.75	0.70	0.64	0.51	2.35	2.47	2.47	0.49	1.18	0.65

Notes:

^a $p < .05$. ^b $p < .01$. ^c $p < .001$.

(1) = Time spent communicating with friends online. (2) = Social Media Use Integration Scale. (3) = Vaguebooking. (4) = Need to Belong Scale. (5) = Short Form Social Interaction Anxiety Scale and Social Phobia Scale. (6) = UCLA Loneliness Scale. (7) = Personality Inventory for Youth - Family Dysfunction Subscale. (8) = Family Environment Scale - Cohesion. (9) = Family Environment Scale - Conflict. (10) = Brief Histrionic Personality Scale. (11) = Multidimensional Scale of Perceived Social Support. (12) = Interpersonal Reactivity Index

Exploratory Analyses

To explore participants' usage and attachment to social media and vaguebooking, two multiple regressions were performed. In both regressions, predictor variables were all relevant study variables (family cohesion, family conflict, parent-child conflict, loneliness, social support, need for belonging, social anxiety, histrionic symptoms, and empathy). Social media integration was the criterion for the first regression (see Table 3); vaguebooking was the criterion for the second regression (see Table 4). The response set of social desirability was force-entered at step one in both regression analyses as a means to control for social desirability.

Taken together, the study variables significantly predicted social media integration (Multiple $R^2 = .16$, $F(10, 370) = 7.21$, $p < .001$). The two predictor variables that achieved significance were histrionic symptoms ($B = .207$, $t = 3.90$, $p < .001$) and need for belonging ($B =$

.174, $t = 3.23$, $p < .01$).

Taken together, the study variables significantly predicted vaguebooking (Multiple $R^2 = .13$, $F(10, 366) = 5.64$, $p < .001$). The two predictor variables that achieved significance were histrionic symptoms ($B = .205$, $t = 3.74$, $p < .001$) and loneliness ($B = .147$, $t = 2.19$, $p < .05$).

Table 4: *Predicting Social Media Integration (N=471)*

Variable	R^2	Adjusted R^2	R	B	$SE B$	β	t
Step 1	.07	.07	.27***				
Social Desirability				-0.08	0.01	-.27	-5.50***
Step 2	.16	.14	.41***				
Social Desirability				-0.06	0.02	-.20	-3.48***
Loneliness				0.37	0.10	.02	0.36
Social Anxiety				-0.07	0.07	-.06	-1.01
Need for Belonging				0.21	0.06	.17	3.23***
Histrionic Symptoms				0.35	0.09	.21	3.89***
Empathy				-0.03	0.07	-.02	-0.45
Parent-Child Conflict				0.00	0.02	.00	0.01
Family Conflict				-0.01	0.02	-.03	-0.59
Family Cohesion				0.00	0.02	.01	0.14
Social Support				0.06	0.04	.09	1.40

* $p < .05$

** $p < .01$

*** $p < .001$

Table 5: *Predicting Vaguebooking (N=471)*

Variable	R^2	Adjusted R^2	R	B	$SE B$	β	t
Step 1	.07	.07	.27***				
Social Desirability				-0.07	0.01	-.27	-5.42***
Step 2	.13	.11	.37***				
Social Desirability				-0.05	0.02	-.19	-3.18**
Loneliness				0.21	0.10	.15	2.19*
Social Anxiety				-0.10	0.07	-.09	-1.50
Need for Belonging				0.03	0.06	.03	0.47
Histrionic Symptoms				0.31	0.08	.21	3.74***
Empathy				0.03	0.06	.03	0.49
Parent-Child Conflict				-0.03	0.02	-.09	1.25
Family Conflict				0.02	0.02	0.05	0.84
Family Cohesion				-0.00	0.02	-.01	-0.13
Social Support				0.01	0.04	.02	0.38

* $p < .05$

** $p < .01$

*** $p < .001$

Discussion

Social Media Integration and Vaguebooking

Histrionic symptoms and need for belonging predicted both social media integration and vaguebooking. Since those who had a higher need for belonging spent more time communicating with friends online, these participants had a strong emotional connection and attachment to social media because of the greater perceived social support it may have provided (Johnston et al, 2013). Since histrionic symptoms only were related to social media integration and vaguebooking and not time spent interacting with friends online, it seems that the quality, in addition to quantity, of social media use is important to consider.

There was very little research on how histrionic symptoms and social media use were related. One existing study indicated that histrionic symptoms were predicted by more social media use and those who believed that emotional support is available online were more likely to report histrionic symptoms. (Rosen, Whaling, Rab, Carrier, & Cheever, 2013). In addition, those with histrionic symptoms spent more time managing their impression on social media (Rosen et al., 2013). Taken with the results of the current study, it seems plausible that histrionic symptoms and extensive social media use may reinforce each other.

Vaguebooking was a measure of reassurance-seeking behaviors on social media. Those who sought reassurance on Facebook more frequently increased their likelihood of feeling that they were a burden to others (Clerkin, Smith, & Hames, 2013). This type of response may increase loneliness. This hypothesis, taken with the results of the current study, indicated that those with histrionic symptoms may participate in reassurance seeking behaviors online in order to feel less isolated. However, a lack of response or rebuffs from friends may only worsen feelings of social isolation (Feinstein, Hershenberg, Bhatia, Latack, Meuwly, & Davila, 2013).

A primary element of histrionic personality disorder is a need to draw attention to oneself (Bakkevig, 2010). Vaguebooking is an easily executed method of doing this. Vaguebooking by nature can facilitate these attention seeking needs by inviting others to ask more about a personal situation the user is alluding to. The finding of the current study that histrionic personality traits also predicted routine social media and integration was more surprising. Communication via social media in general differs from other modes of interacting with people in that instead of having an interaction one on one, users have the ability to post to an entire audience of people. Social media users can share details such as location, thoughts, and activities, which offers information that an audience can follow, comment on, or admire (Wang & Stefanone, 2013). Typically, users only share locations that would seem more interesting or impressive to their network, such as restaurants (Wang, et al., 2013). Since histrionic individuals have exhibitionist behaviors and draw attention to themselves by demanding admiration (Bakkevig & Karterud, 2010), it is reasonable to imagine that elements of social media, including location sharing, would be appealing to those with histrionic personality traits, predicting more routine social media use in general.

Social media use is partially motivated by the need to fulfill social needs, however it is not a need that is immediately gratified by using it (Wang, Tchernev, & Solloway, 2012). This could lead to gradual integration of social media use into a user's routine (Wang et al., 2012). Internet users who use blogs to share personal experiences are offered validation as a social support from their audience (Ko, Wang, & Xu, 2013). Having an audience to provide support may feed into a histrionic individual's need to be the center of attention. Histrionic users may become dependent on social media in their attempts to gratify this need. In the same study, bloggers who disclosed personal frustrations or adversity were more likely to receive

encouraging messages from readers (Ko, et al., 2013). This feedback may motivate internet users to share more of their problems online, and eventually solicit support. This could also lead to vaguebooking. It is possible that social media use encourages users to adopt more attention-seeking behaviors by rewarding posts with praise or support from an entire audience of followers.

Personality Characteristics

Participants who reported more loneliness, social anxiety and need to belong were expected to spend more time communicating with friends online. Need to belong was the only variable that significantly correlated with social media use. This finding can be explained partially by the composition of the participants. The majority of the participants of this study were first-year college students who may be experiencing social disconnection. Facebook can be an effective means for combatting this (Sheldon, Abad, & Hinsch, 2011). When new college students experience a low sense of belonging they more frequently use social media in order to maintain connections with existing friends whom they may no longer be able to easily interact with in person (Strayhorn, 2012).

Need to belong also may be related significantly to the amount of time spent communicating online because certain types of social media use may increase feelings of belonging. Although there was not much existing research on social media's effects on a person's feelings of belonging, Johnston, Tanner, Lalla and Kowalski (2014) found that Koreans who spent more time blogging perceived greater social support and belonging. Students who may be struggling to make meaningful connections in person may take to online communication in order to feel like they belong. On the other hand, Strayhorn (2012) found that college students who used social media less frequently were more likely to report feelings of belongingness. However,

this relationship was relatively weak.

It was hypothesized that participants with high social anxiety would communicate with friends more online because of the indirect nature of the communication (Sheldon, 2008). However, social anxiety was unrelated to time spent communicating with friends online. There were conflicting results in the literature with regard to how social media use and social anxiety were related. The findings of the current study contradicted some existing research that suggested social media may provide more of an opportunity for socially anxious individuals to interact when face to face interactions were too stressful (Leary & Kowalski, 1995; McCord, Rodebaugh, & Levinson, 2014). Yet, other research suggested that social anxiety did not predict the frequency of Facebook use (Fernandez, Levison & Rodebaugh, 2012). One study found that, although there was no significant difference in social media use between those with versus without social anxiety, there was a significant difference among those with social anxiety. Specifically, among those with social anxiety, those reporting higher anxiety used Facebook more frequently (McCord et al., 2014). I speculate that the statistical nonsignificance of this study's results could be an interaction between different features of social anxiety and coping mechanisms. It is possible that individuals with higher social anxiety may be more motivated to use social media as a method of social interaction in order to compensate for uncomfortable and unsatisfying face-to-face interactions, even if social media usage increased feelings of social anxiety (McCord et al., 2014).

It also was hypothesized that participants who experienced more loneliness would spend more time communicating with friends online as a means to decrease their loneliness (Deters & Mehl 2012). The current study found no significant relationship between online communication and loneliness. Although some research suggested that the more a person communicates online,

the less loneliness they were likely to feel (Jin, 2013), other research indicated that lonely people were more likely to use the internet (Song et al, 2014). Some participants may experience loneliness and may use social media in an attempt to feel companionship (Sheldon, 2008) given that it can be used as a means of compensating for deficiencies of in-person relationships (Song et al, 2014). The contradiction of the results in the existing literature suggested that there may be other variables that influence the relation between social media use and loneliness.

Parent Child Relationship

It was expected that participants with a poor relationship with their parents would spend more time communicating with friends online. However, results indicated that the parent-child relationship was not associated with social media use. Since poor parental relationships may be offset by a good relationship with friends (Sentse & Laird, 2010), participants with a poor relationship with their parents were expected to communicate more with friends online. However, past research also indicated that the quality of parent-child relationship was related to the quality of a person's relationship with his or her peers (Riggio, 2004). Further, although it was expected that participants may use social media as a way to cope with loneliness brought about by a poor relationship with parents, the outcomes of the current study were consistent with those by Scharf, Wiseman, and Farah's (2011), in that the effects of perceived acceptance from parents was not only related to lower parent-related loneliness, but also lower peer-loneliness. Stated differently, among adolescents, the quality of parent-child relationship tends to be similar to relationships with friends.

Some participants with a poor relationship with their parents also were likely to have a poor relationship with their peers and would therefore not need to spend as much time communicating with friends online. On the other hand, some participants may use

communication with friends as a means to offset a poor relationship with parents. The possibility of having either enhanced friendships or diminished friendships due to parental relationship may explain why participants' time spent communicating with friends online was not significantly correlated to the parent-child relationship.

Academic Performance

Participants who spent more time communicating with friends online were expected to have lower academic performance; however, there was no significant correlation between the two. This finding conflicted with past research suggesting that students who spend more time social networking online had lower GPAs and spent less time studying (Karpinski, Kirschner, Ozer, Mellott, & Ochwo 2013). The specific use of Facebook chat to communicate with friends also was associated with a lower GPA (Junco, 2011). Most of the participants in the current study were first-year college students in their first semester. Participants who had not yet received grades in college were asked to report their most recent high school grades. Since first year students may use social media more in order to stay connected with existing friends (Strayhorn, 2012), it is possible that participants were using social media to communicate with their friends more than they were at the time of their most recently reported grades.

Limitations and Future Research

There were limitations to the present study. First, the initial study was devised with adolescent participants in mind. The measurement of parent-child relationship may be less applicable to adolescents since the young adult is no longer living in the home or having first-hand experience of the potential conflict. Thus, the results are more generalizable to emerging adults.

When children are living in the home, parents have the capacity to control their children's

ability to visit friends and socialize in person, which could impact time spent communicating with friends online to some extent. Once a child moves out, however, the parent has much less control over the amount of time the child spends socializing in person. This living arrangement has the potential to yield different results. Future studies should attempt to collect data from adolescents in order to get a more accurate picture of life at home.

A related limitation is the use of college students as a population. Many of the participants in this study were first year, first semester college students. These students were in a new environment, which may have impacted their perceptions and reports of loneliness, need to belong, and social anxiety. Students may be using social media more in order to communicate with people that they used to interact with face-to-face, but no longer can because of geographical restraints. It was possible that the college students who participated in this study used the internet more than students that did not because the survey was hosted online. This could be remedied by administering a paper-based set of questionnaires.

Another limitation was that the data were collected as self-reported responses on a survey. Therefore, there may be a disparity between what the participants see about themselves and what was actually true. In addition, selective memory may make people only remember what stood out from their childhood, making the parent-child relationship seem better or worse than reality in some cases. Social desirability was controlled for in order to create more accurate picture of the data. A future study may ask parents in addition to student participants about their perceptions of family conflict and parent-child relationship.

Future research is needed to develop an understanding for social media as it relates to reassurance-seeking behavior. Although vaguebooking may be a harmless form of soliciting attention on social media, there are much more severe reassurance-seeking behaviors online,

including posting pictures of self-inflicted injuries. Because histrionic symptoms were correlated strongly with vaguebooking, there is a possibility that vaguebooking and self-harm on social media are related. It is imaginable that the attention garnered from posting on social media could lead to an even greater likelihood of committing self-injurious acts.

Implications

This study made some important contributions to existing literature. Findings from the current study highlighted a strong relation between needing to belong and social media use and attachment, an area that largely was unresearched. Additionally, the exploratory analyses were some of the first to investigate the relationship between histrionic personality traits and their impact on social media integration and reassurance-seeking behaviors online. Not only were histrionic individuals taking to social media to garner attention, but people experiencing loneliness were too. This finding could indicate a larger acceptance towards reassurance-seeking behaviors.

References

- Ahlqvist, T., Bäck, A., Halonen, M. & Heinonen, S. (2008). Social media roadmaps: Exploring the futures triggered by social media. *VTT Research Notes, 2454*. Retrieved from: <http://www.vtt.fi/inf/pdf/tiedotteet/2008/T2454.pdf>
- Ahn, D., & Shin, D. (2013). Is the social use of media for seeking connectedness or for avoiding social isolation? Mechanisms underlying media use and subjective well-being. *Computers in Human Behavior, 29*, 2453-2462. doi:10.1016/j.chb.2012.12.022
- Bakkevig, J. F., & Karterud, S. (2010). Is the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, histrionic personality disorder category a valid construct? *Comprehensive Psychiatry, 51*, 462-470. doi:10.1016/j.comppsy.2009.11.009
- Caplan, S. E. (2007). Relations among loneliness, social anxiety, and problematic Internet use. *Cyberpsychology & Behavior, 10*(2), 234-242. doi:10.1089/cpb.2006.9963
- Clerkin, E. M., Smith, A. R., & Hames, J. L. (2013). The interpersonal effects of Facebook reassurance seeking. *Journal of Affective Disorders, 151*, 525-530. doi:10.1016/j.jad.2013.06.038
- Davila, J., Hershenberg, R., Feinstein, B. A., Gorman, K., Bhatia, V., & Starr, L. R. (2012). Frequency and quality of social networking among young adults: Associations with depressive symptoms, rumination, and corumination. *Psychology of Popular Media Culture, 1*, 72-86. doi:10.1037/a0027512
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126. doi:10.1037/0022-3514.44.1.113
- de Goede, I. A., Branje, S. T., Delsing, M. H., & Meeus, W. J. (2009). Linkages over time

- between adolescents' relationships with parents and friends. *Journal of Youth and Adolescence*, 38, 1304-1315. doi:10.1007/s10964-009-9403-2
- de Minzi, M. (2006). Loneliness and depression in middle and late childhood: The relationship to attachment and parental styles. *The Journal of Genetic Psychology: Research and Theory on Human Development*, 167(2), 189-210.
doi:10.3200/GNTP.167.2.189-210
- Deters, F., & Mehl, M. R. (2013). Does posting Facebook status updates increase or decrease loneliness? An online social networking experiment. *Social Psychological and Personality Science*, 4, 579-586. doi:10.1177/1948550612469233
- Duggan, M. & Smith, A. (2013, December 27). *Social media update 2013*. Retrieved from:
<http://www.pewinternet.org/2013/12/30/social-media-update-2013/>
- Feinstein, B. A., Hershenberg, R., Bhatia, V., Latack, J. A., Meuwly, N., & Davila, J. (2013). Negative social comparison on Facebook and depressive symptoms: Rumination as a mechanism. *Psychology of Popular Media Culture*, 2, 161-170. doi:10.1037/a0033111
- Ferguson, C. J., Muñoz, M. E., Garza, A., & Galindo, M. (2014). Concurrent and prospective analyses of peer, television and social media influences on body dissatisfaction, eating disorder symptoms and life satisfaction in adolescent girls. *Journal of Youth and Adolescence*, 43, 1-14. doi:10.1007/s10964-012-9898-9
- Ferguson, C.J., & Negy, C. (2014). Development of a brief screening questionnaire for histrionic personality symptoms. *Personality and Individual Differences*.
doi:10.1016/j.paid.2014.02.029
- Fernandez, K. C., Levinson, C. A., & Rodebaugh, T. L. (2012). Profiling: Predicting social anxiety from Facebook profiles. *Social Psychological and Personality Science*, 3, 706-

713. doi:10.1177/1948550611434967

- Forehand, R., Long, N., Brody, G. H., & Fauber, R. (1986). Home predictors of young adolescents' school behavior and academic performance. *Child Development, 57*, 1528-1533.
- Freis, S. D., & Gurung, R. R. (2013). A Facebook analysis of helping behavior in online bullying. *Psychology of Popular Media Culture, 2*, 11-19. doi:10.1037/a0030239
- Gentile, B., Twenge, J. M., Freeman, E. C., & Campbell, W. (2012). The effect of social networking websites on positive self-views: An experimental investigation. *Computers in Human Behavior, 28*, 1929-1933. doi:10.1016/j.chb.2012.05.012
- Jenkins-Guarnieri, M. A., Wright, S. L., & Johnson, B. (2013). Development and validation of a social media use integration scale. *Psychology of Popular Media Culture, 2*, 38-50. doi:10.1037/a0030277
- Jin, B. (2013). How lonely people use and perceive Facebook. *Computers in Human Behavior, 29*, 2463-2470. doi:10.1016/j.chb.2013.05.034
- Johnston, K., Tanner, M., Lalla, N., & Kawalski, D. (2013). Social capital: The benefit of Facebook 'friends'. *Behaviour & Information Technology, 32*, 24-36. doi:10.1080/0144929X.2010.550063
- Junco, R. (2012). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior, 28*, 187-198. doi:10.1016/j.chb.2011.08.026
- Karpinski, A. C., Kirschner, P. A., Ozer, I., Mellott, J. A., & Ochwo, P. (2013). An exploration of social networking site use, multitasking, and academic performance among United States and European university students. *Computers in Human Behavior, 29*, 1182-

1192. doi:10.1016/j.chb.2012.10.011

- Kim, J., & Roselyn Lee, J. (2011). The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. *Cyberpsychology, Behavior, and Social Networking, 14*, 359-364. doi:10.1089/cyber.2010.0374
- Ko, H., Wang, L., & Xu, Y. (2013). Understanding the different types of social support offered by audience to A-list diary-like and informative bloggers. *Cyberpsychology, Behavior, and Social Networking, 16*, 164-199. doi:10.1089/cyber.2012.0297
- Kramer, A. I., Guillory, J. E., & Hancock, J. T. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *PNAS Proceedings of the National Academy Of Sciences Of The United States Of America, 111*, 8788-8790. doi:10.1073/pnas.1320040111
- Krämer, N. C., & Winter, S. (2008). Impression management 2.0: The relationship of self-esteem, extraversion, self-efficacy, and self-presentation within social networking sites. *Journal of Media Psychology: Theories, Methods, and Applications, 20*(3), 106-116. doi:10.1027/1864-1105.20.3.106
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues, 58*, 49.
- Leary, M. R., & Kowalski, R. M. (1995). *Social anxiety*. New York, NY, US: Guilford Press.
- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the Need To Belong Scale: Mapping the nomological network. *Journal of Personality Assessment, 95*, 610-624. doi:10.1080/00223891.2013.819511
- Madden, M., Lenhart, A., Cortesi, S., Gasser, U., Duggan, M., Smith, A., & Beaton, M. (2013, May 21). *Teens, social media, and privacy*. Retrieved from:

- <http://www.vtt.fi/inf/pdf/tiedotteet/2008/T2454.pdf>
- McCord, B., Rodebaugh, T. L., & Levinson, C. A. (2014). Facebook: Social uses and anxiety. *Computers in Human Behavior, 34*, 23-27. doi:10.1016/j.chb.2014.01.020
- Moos, R. H. (1974). *The family environment scale*. Palo Alto, CA: Consulting Psychologists Press.
- Moos, R. H., & Moos, B. S. (1994). *Family environment scale manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press, Inc.
- O’Keeffe, G., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics, 127*, 800-804. doi:10.1542/peds.2011-0054
- Pea, R., Nass, C., Meheula, L., Rance, M., Kumar, A., Bamford, H., & ... Zhou, M. (2012). Media use, face-to-face communication, media multitasking, and social well-being among 8- to 12-year-old girls. *Developmental Psychology, 48*, 327-336. doi:10.1037/a0027030
- Peters, L., Sunderland, M., Andrews, G., Rapee, R. M., & Mattick, R. P. (2012). Development of a short form Social Interaction Anxiety (SIAS) and Social Phobia Scale (SPS) using nonparametric item response theory: The SIAS-6 and the SPS-6. *Psychological Assessment, 24*, 66-76. doi:10.1037/a0024544
- Qiu, L., Lin, H., Leung, A. K., & Tov, W. (2012). Putting their best foot forward: Emotional disclosure on Facebook. *Cyberpsychology, Behavior, and Social Networking, 15*(10), 569-572.
- Reich, S. M., Subrahmanyam, K., & Espinoza, G. (2012). Friending, IMing, and hanging out face-to-face: Overlap in adolescents' online and offline social networks. *Developmental Psychology, 48*, 356-368. doi:10.1037/a0026980

- Reynolds, W. M. (1982). Development of reliable and valid short form of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*, 119–125.
- Riggio, H. R. (2004). Parental marital conflict and divorce, parent-child relationships, social support, and relationship anxiety in young adulthood. *Personal Relationships, 11*(1), 99-114. doi:10.1111/j.1475-6811.2004.00073.x
- Rosen, L. D., Mark Carrier, L. L., & Cheever, N. A. (2013). Facebook and texting made me do it: Media-induced task-switching while studying. *Computers in Human Behavior, 29*, 948-958. doi:10.1016/j.chb.2012.12.001
- Rosen, L. D., Whaling, K. K., Rab, S. S., Carrier, L. M., & Cheever, N. A. (2013). Is Facebook creating “iDisorders”? The link between clinical symptoms of psychiatric disorders and technology use, attitudes and anxiety. *Computers In Human Behavior, 29*(3), 1243-1254. doi:10.1016/j.chb.2012.11.012
- Russell, D. W. (1996). UCLA Loneliness Scale (version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*, 20–40.
- Scharf, M., Wiseman, H., & Farah, F. (2011). Parent-adolescent relationships and social adjustment: The case of a collectivistic culture. *International Journal of Psychology, 46*, 177-190. doi:10.1080/00207594.2010.528424
- Sentse, M., & Laird, R. D. (2010). Parent–child relationships and dyadic friendship experiences as predictors of behavior problems in early adolescence. *Journal of Clinical Child And Adolescent Psychology, 39*, 873-884. doi:10.1080/15374416.2010.517160
- Sheldon, K. M., Abad, N., & Hinsch, C. (2011). A two-process view of Facebook use and relatedness need-satisfaction: Disconnection drives use, and connection rewards it. *Psychology of Popular Media Culture, 1*, 2-15. doi:10.1037/2160-4134.1.S.2

- Sheldon, P. (2008). The relationship between unwillingness-to-communicate and students' Facebook use. *Journal of Media Psychology: Theories, Methods, and Applications*, 20, 67-75. doi:10.1027/1864-1105.20.2.67
- Sheldon, P. (2012). Profiling the non-users: Examination of life-position indicators, sensation seeking, shyness, and loneliness among users and non-users of social network sites. *Computers in Human Behavior*, 28, 1960-1965. doi:10.1016/j.chb.2012.05.016
- Sheldon, P. (2013). Voices that cannot be heard: Can shyness explain how we communicate on Facebook versus face-to-face? *Computers in Human Behavior*, 29, 1402-1407. doi:10.1016/j.chb.2013.01.016
- Smahel, D., Brown, B., & Blinka, L. (2012). Associations between online friendship and Internet addiction among adolescents and emerging adults. *Developmental Psychology*, 48, 381-388. doi:10.1037/a0027025
- Song, H., Zmyslinski-Seelig, A., Kim, J., Drent, A., Victor, A., Omori, K., & Allen, M. (2014). Does Facebook make you lonely?: A meta analysis. *Computers in Human Behavior*, 36, 446-452. doi:10.1016/j.chb.2014.04.011
- Strayhorn, T. L. (2012). Exploring the impact of Facebook and Myspace use on first-year students' sense of belonging and persistence decisions. *Journal of College Student Development*, 53, 783-796. doi:10.1353/csd.2012.0078
- Utz, S., Tanis, M., & Vermeulen, I. (2012). It is all about being popular: The effects of need for popularity on social network site use. *Cyberpsychology, Behavior, and Social Networking*, 15, 37-42. doi:10.1089/cyber.2010.0651
- Vaguebooking. (2009). In *Urban Dictionary*. Retrieved from: <http://www.urbandictionary.com/define.php?term=Vaguebooking>

- Vitak, J., & Ellison, N. B. (2013). 'There's a network out there you might as well tap': Exploring the benefits of and barriers to exchanging informational and support-based resources on Facebook. *New Media & Society, 15*, 243-259. doi:10.1177/1461444812451566
- Wang, S. S., & Stefanone, M. A. (2013). Showing off? Human mobility and the interplay of traits, self-disclosure, and Facebook check-ins. *Social Science Computer Review, 31*, 437-457.
- Wang, Z., Tchernev, J. M., & Solloway, T. (2012). A dynamic longitudinal examination of social media use, needs, and gratifications among college students. *Computers in Human Behavior, 28*, 1829-1839. doi:10.1016/j.chb.2012.05.001
- Wohn, D., Ellison, N. B., Khan, M., Fewins-Bliss, R., & Gray, R. (2013). The role of social media in shaping first-generation high school students' college aspirations: A social capital lens. *Computers & Education, 63*424-436. doi:10.1016/j.compedu.2013.01.004
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*, 30-41