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## Exploring Connections Between Social Anxiety and Social Media Use in College Students

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Exploring Connections Between Social Anxiety and Social Media Use in College Students

University Honors Program Thesis Project

University of Nebraska at Omaha

Submitted by:

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May 2020

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**University of Nebraska at Omaha Honors Thesis Abstract**

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**Abstract**

When young adults enter college their identity and self-esteem are tested in a novel environment. Interacting, forming new relationships, having some sense of independence for the first time, and often living in a new area can take a toll on someone who has not sufficiently developed a stable identity. This, in-turn, may create a negative outlook on one's self and the individual's capabilities to participate in social interaction, or ultimately a desire to avoid them altogether. If such a negative view further intensifies and remains present, it may develop into social anxiety disorder. Social media can either alleviate or escalate these feelings of anxiety based on how it is utilized by the individual. The individual may become compulsive with their internet use, for example, or focus more on websites where an unauthentic reality is portrayed. Each of these factors may have an effect on social anxiety within the individual. Results from this study indicated that social anxiety was positively correlated with higher levels of internet use and compulsivity of internet use. Contrary to the study's expectations, social anxiety increased with higher levels of media consumption that is considered to be authentic, such as YouTube, Tumblr, Gaming, or Chatrooms. Exploratory research indicated that females had significantly higher levels of social anxiety than males, as well as higher levels of fear of negative evaluation, and social avoidance and distress.

*Keywords:* Social anxiety disorder, loneliness, social media, adolescence, internet, identity, early adulthood

### **Exploring Connections Between Social Anxiety and Social Media Use in College Students**

Developmental theories emphasize the periods of adolescence and early adulthood as a time of self-discovery and hardening of an individual's once ambiguous personality traits.

Erikson's developmental theory explains that identity develops from as early as infancy and well into late adulthood (Erikson, 1950). This development occurs when certain crises are dealt with, producing either a positive or negative effect on the individual's personality. Upon aging out of the Identity vs. Role Confusion crisis in adolescence, where one is meant to either begin on a path to developing a stable identity or continue on with a weak sense of self (role confusion), the college-age student then moves into the Intimacy vs. Isolation crisis of Erikson's theory.

In their early twenties, young people are striving to find where and how they fit into society, what the identity that they are working to develop entails, and how it affects their role in the world. The decisions that they are making during this time in their life contribute more to their identity than any other, when considering the great deal of positive influence that a developed, stable identity has on a person's social comparisons, self-presentation, and sense of purpose (Waterman, & Archer, 1990).

During early adulthood, romantic and platonic relationships, occupational ideas, and political and religious beliefs are all evolving in a person's life. People are able to make choices that influence these areas of life successfully, disregarding outside influences, if they are comfortable with the identity they have chosen and committed to the goals they have set. James Marcia, in his identity development theory, calls an individual who has made a decision about their present identity and stands behind their choices an "identity achiever" (Marcia, 1966). These are people who have been through the identity crisis and found their sense of purpose and direction. It is important to note that this identity decision is not permanent, but much more

stable than those who have not yet made a firm choice, and are said to be in a state of “exploration” or crisis (Marcia, 1966; Waterman, 1993). Alternative identity options from Marcia include those who have simply not explored the possible identity options, called identity foreclosure, have explored but not committed to an identity, called identity moratorium, or have not explored and have not committed, called identity diffusion (Marcia, 1966). Individuals in any of these latter three situations may struggle with deciding how to portray themselves in social situations and how to interact and compare themselves with others. This confusion may lead to a great deal of fear or anxiety regarding social situations.

If the individual is unsuccessful in navigating the process of developing a firm identity during their college years, their self-esteem and self-concept may be more negative than one would prefer (Dusek, Carter, & Levy, 1986; Johnson & Nozick, 2011). If individuals are not confident in the choices they have made about their identity, or hold a negative self-concept, this may ultimately lead to or maintain the existence of social anxiety disorder in that person (Hulme, Hirsch, & Stopa, 2012; Wilson & Rapee, 2006).

Social anxiety disorder (SAD), as its diagnosed, is a mental disorder that the DSM gives multiple criterion for, including a “marked fear or anxiety of social situations in which the individual is exposed to or perceives possible scrutiny by others and fear or anxiety is out of proportion to the actual threat posed by the social situation” (American Psychiatric Association, 2013). Measures of SAD must also include the anxiety causing impairments in academic, occupational, or social functioning. These feelings or thoughts can lead to the individual feeling immense fear or completely avoiding any social interaction altogether.

Higher social anxiety levels are often linked with increased alcohol consumption (Kessler, 2003), which has the chance to develop and occur quite frequently with students

attending universities and being independent for the first time. This is especially seen when students with social anxiety believe that alcohol will make them more outgoing or less anxious in social situations (Ham, Bacon, Carrigan, Zamboanga, & Casner, 2016) Increased alcohol consumption is associated with riskier sexual behaviors (Moorer, Madson, Mohn, & Nicholson, 2013) in females and missed classes, lower grades, injury, overdoses, memory blackouts, cognitive deficits, and changes in brain functioning (White & Hingson, 2013) in both genders. Overuse of alcohol can be particularly detrimental with traditional college students being at such a crucial stage in brain development.

Social anxiety is also associated with smaller social support systems. Higher proportions of those diagnosed with SAD lived alone, had fewer than two friends, and did not participate in any clubs or social organizations (Falk Dahl & Dahl, 2010). The family can be the closest or only support system for people who are severely anxious socially, and if an individual moves to attend school and has issues or fears of making new friends to make up for that lost social support, there is a great concern that loneliness will ensue. This loneliness issue can become especially prevalent if the young person is moving away from his/her family to attend college (Henninger IV, Eshbaugh, Osbeck, & Madigan, 2016).

Loneliness in itself has many negative effects on the college-age student, such as creating a negative adjustment style (Quan, Zhen, Yao, & Zhou, 2014) and a greater persistence of suicidal ideations (Weber, Metha, & Nelsen, 1997). When social anxiety is at work in a person, inhibiting what is already a difficult situation with the potential for disaster, the individual can find it very challenging to lessen these feelings of isolation in typical ways such as attending social events on campus or establishing connections with peers in the classroom.

A typical way that some combat these feelings of loneliness is turning to online interactions to fill the void of the face-to-face interaction that they are lacking (Masi, Chen, Hawkley, & Cacioppo, 2011). Research has shown that shyness can be linked to excessive mobile phone usage, or even addiction, and cite social anxiety as the mediator between these two factors (Hong et al., 2019). For those who have trouble fitting in socially, the internet can provide for the individual a sense of belonging. This may be due to the attractiveness of the anonymity found behind the screen of the computer, which can allow individuals to feel more comfortable saying what they truly feels or think (Roberts, Smith, & Pollock, 2000; Shepherd & Edelman, 2005) and make connections more easily. Many studies have detailed the effectiveness of the internet in creating meaningful and healthy relationships for those who fear those real-world situations (Bargh, McKenna, & Fitzsimons, 2002; Birnie & Horvath, 2002; Murphy & Tasker, 2011; Papacharissi & Rubin, 2000).

Social media and internet usage have recently become a dominant force in the world of mental health (Pal Singh Balhara et al., 2019). With how prevalent and extreme a force social media has become in recent years, and also taking into account the novelty of its existence, research covering the long-term effects on users are not as readily available as research on the effectiveness or necessity of face-to-face social interaction. The research that has been conducted on social media factors shows interactions between internet use, paired with in-person interaction and the effects on levels of anxiety. Time spent viewing people's profiles on Facebook.com can lead to higher level of arousal when a face-to-face interaction directly follows the online interaction with the individual in individuals that have high social anxiety (Rauch, Strobel, Bella, Odachowski, & Bloom, 2014).



In other studies, the unauthentic reality that social media allows users to facilitate makes for higher levels of perceived social interaction and approval. In other words, the feelings of acceptance that users feel from posting a new profile picture or a status that they know others will think highly of them for (accomplishments, travel, etc.) correlates to higher levels of self-esteem (Yang & Bradford Brown, 2016). In the same situations though, a higher level of false presentation of the “self” online correlates with anxious and avoidant attachment styles (Gil-Or, Levi-Belz, & Turel, 2015). These attachment styles that we develop, both as children and adults, affect how people deal with events in life regarding emotional intimacy with others, such as communicating and understanding their own needs as well as the needs of others, dealing with conflict, and understanding relationship expectations. These attachment styles facilitate what type of relationships the individual will likely form with others in various relationships, romantic or otherwise.

College and young adulthood can be a difficult time for young adults who are still struggling with exploration of their identity and finding relationships. The social exclusion or avoidance associated with the unsureness of the self can cause many negative effects on the body and the psyche of the individual. If this negative sense of self progresses too strongly, it may develop into Social Anxiety Disorder (Hulme et al., 2012). These feelings of extreme anxiety in social situations may be heightened or relieved depending on the way that social media is utilized. Research is greatly lacking on what possible correlations could be found between social anxiety and social media usage. While social anxiety may drive social isolation or loneliness, social media usage may also be an alleviation from these feelings and their inevitable consequences.

What this research will look at, specifically, is the self-reported social anxiety levels in a college-age population and how the severity of that social anxiety affects their compulsivity and sophistication of their internet usage. The scales chosen to measure these factors will measure for levels of social anxiety in the individuals as well as the feelings they get after periods of social media use, along with what websites they spend the most time on or visit most frequently. The internet usage scales will give an insight to how each individual chooses to spend his/her time on the internet as well as their feelings about their amount of time spent on the internet. This information paired with the anxiety scale responses could show connections between anxiety levels and internet usage.

The hypotheses for this study are:

H1: Social anxiety will be positively correlated with compulsivity in the individual's internet usage.

H2: Social anxiety will be positively correlated with a greater amount of internet usage.

H3: Social anxiety will be positively correlated with time spent on websites such as Facebook and Instagram, where an unauthentic reality is portrayed.

H4: Social anxiety will be negatively correlated with time spent on websites such as YouTube or other blogging/community platforms where an authentic reality is portrayed.

## **Methods**

### **Participants**

Data was collected, through SONA in the summer and fall of 2019, in a population of undergraduate psychology students at the University of Nebraska at Omaha. Participants who completed scales did so voluntarily and without compensation. A total of 260 students

**Table 1***Demographic information of participants*

	N	Minimum	Maximum	Mean	Std. Deviation
Age	228	18	69	23.09	6.157
Sex	240	1.00	2.00	1.7958	.40393
Race	245	1	7	1.79	1.621
Household Income	244	1	12	5.90	3.829

Note. For sex, 1 = male, 2 = female, for race, 1 = white, 2=American Indian/Alaska Native, 3 = Asian, 4 = Black/African American, 5 = Native Hawaiian/other Pacific Islander, 6 = Biracial, 7 = Other, for household income, 1 = less than \$10,000 and 12 = more than \$150,000.

participated in the data collection, 77.3% female, 19.8% male, and 2.8% non-binary/preferred not to say. The population ranged from 18-69 years of age with a mean of 23.09 years. The majority in this sample of students reported themselves as White/Caucasian (76.7%), followed by Asian (7.3%), African American (6.9%), Bi-racial (3.4%), other (3.4%), American Indian/Alaska Native (1.2%), and Native Hawaiian/Other Pacific Islander (.4%). The participants in this group were asked to respond about their household income, including their parent(s) income if they still lived with them. Income was ranked on a scale of 1-12 one being less than \$10,000 and 12 being more than \$150,000. 52.5% of participants fell below the median of \$40-49,999, and 47.5% were above the median.

**Measures**

The Social Anxiety Scale for Adolescents (Revised) (La Greca, 1993) is an 18-item scale with questions regarding how often each item is true for you (See Appendix A). The items include fears of public embarrassment, shyness around friends or novel groups of peers, worry of other's perceptions, and other social anxiety related events. The responses are rated on a scale from "never = 1" to "all the time = 5". Participant's scores were averaged across the 18 items  $M=51.38$ ,  $SD= 16.27$ , range = 72. Cronbach's alpha (a measure for internal consistency) was .95. This scale includes three subscales that also measure for social avoidance and distress in new

situations (Cronbach's alpha .90), general social avoidance and distress (Cronbach's alpha .81), and fear of negative evaluation (Cronbach's alpha .94).

The Compulsive Internet Use scale (Dhir, Chen, & Nieminen, 2016) consists of 14 items on a 5-point scale from "never = 0" to "very frequently = 4". This scale's items include questions of how often the participant has trouble regulating internet usage, if their internet use interferes with face-to-face interaction, has trouble sleeping due to internet use, and various other internet-usage related questions (See Appendix B). Participants scores were averaged across the 14 items,  $M=32.33$ ,  $SD= 9.56$ , range = 56. Cronbach's alpha for this scale was .87.

Finally, the Computer and Cell Phone Sophistication Measure (Casas et al., 2010) examines how often, on what device, and what type of media the participants are typically consuming when they go online (See Appendix C). A higher score indicated more overall internet usage. For this scale, scores were averaged across 14 items, excluding the first item that only asked what device was used to access the internet most frequently,  $M=46.48$ ,  $SD=9.99$ , range = 84 to calculate participants total internet usage. Subscales for this measure included authentic media consumption (Cronbach's alpha =.51) and unauthentic media consumption (Cronbach's alpha =.72).

Various tests for correlation, using Pearson's " $r$ " were run between the variables to test each hypothesis. Some exploratory analyses, including one-way ANOVA, and additional correlations were tested between background information gathered from participants and their responses to each scale.

## Results

Hypotheses were tested for significance at the  $p=.01$  level (2-tailed). There was a statistically significant positive correlation between Social anxiety ( $M=2.86$   $SD=.90$ ) and internet

compulsivity ( $M= 2.31$   $SD= .68$ ),  $r(249)=.38$ ,  $p=<.001$  (Table 1). This indicates that as social anxiety levels increased, so did internet compulsivity, supporting H1.

There was a statistically significant positive correlation between Social anxiety ( $M= 2.86$   $SD= .90$ ) and total internet usage ( $M= 34.61$   $SD = 8.77$ ),  $r(249)=.18$ ,  $p=< .001$ . This indicates that as social anxiety increased, total internet usage increased as well and supports H2.

The correlation between Social Anxiety ( $M= 2.86$   $SD= .90$ ) and Unauthentic Media Usage ( $M=22.28$   $SD= 7.12$ ) was statistically non-significant with a positive correlation of  $r(249)=.089$ ,  $p=.158$ . This shows that as social anxiety levels increased so did levels of unauthentic media consumption, but not at a statistically significant level. Given this result, H3 was not supported.

There was a statistically significant positive correlation between Social Anxiety ( $M= 2.86$   $SD= .90$ ) and Authentic Media Consumption ( $M=12.32$   $SD=4.30$ ),  $r(249)=.29$ ,  $p=.001$ . This shows that as social anxiety levels increased so did higher levels of consumption of authentic media, not supporting H4. The summary of findings for the four hypotheses of this study are presented below in Table 2.

In addition to testing the original hypotheses, exploratory analyses were performed for other variables from the data set collected. Researchers looked at the differences between responses regarding participant's age, sex, and income against each scale, social anxiety, internet compulsivity, and total internet usage.

Age did not have a statistically significant correlation to social anxiety or compulsivity. However, age and total internet usage were statistically significant at the .01 level (two-tailed) with a negative correlation of  $r(217)=-.24$ ,  $p=.001$ . This shows that where age increased, total internet usage decreases. Household income also did not have any statistically significant correlation to compulsivity or total internet usage, but it was significantly negatively correlated with social

**Table 2***Correlation Matrix testing hypotheses*

		1.	2.	3.	4.	5.
1. Total Internet Use	Pearson Correlation	-				
	Sig. (2-tailed)					
	N	247				
2. Compulsive Internet Use	Pearson Correlation	.353**	-			
	Sig. (2-tailed)	.000				
	N	241	254			
3. Social Anxiety	Pearson Correlation	.181**	.382**	-		
	Sig. (2-tailed)	.005	.000			
	N	239	251	251		
4. Unauthentic Media Consumption	Pearson Correlation	.849**	.227**	.089	-	
	Sig. (2-tailed)	.000	.000	.158		
	N	247	254	251	260	
5. Authentic Media Consumption	Pearson Correlation	.557**	.336**	.285**	.126*	-
	Sig. (2-tailed)	.000	.000	.000	.043	
	N	247	254	251	260	260

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

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

anxiety with  $r(242)=-.14$ ,  $p=.05$  (two-tailed). This shows that as household income increases, social anxiety levels decreased.

Sex differences were compared by a One-way ANOVA test, and the results are displayed below and in Table 3. There was a significant effect of sex on social anxiety levels at the  $p<.01$  level, [ $F(1, 238)=7.45$ ,  $p=.007$ ]. Social anxiety was significantly higher in females with a mean of 2.93, while males had a mean of 2.55. Females also has higher means in each of the subscales, social avoidance and distress (general), and fear of negative evaluation. In social avoidance and distress (general) [ $F(1, 238)=6.28$ ,  $p=.013$ ], the female mean was 2.49, while the male mean was 2.09. In fear of negative evaluation [ $F(1, 238)=6.87$ ,  $p=.009$ ], the female mean was 2.83, while the male mean was 2.41. As for total internet usage, [ $F(1, 226)=4.24$ ,  $p=.041$ ], the female mean was

47.31 and the male mean was significantly lower at 43.94. Compulsivity of internet use did not have any significant difference when compared by sex.

**Table 3**

*One-Way ANOVA of sex differences*

	Source	SS	df	MS	F	Sig.
Compulsive Use Score	Between Groups	1.223	1	1.223	2.782	.097
	Within Groups	104.612	238	.440		
	Total	105.835	239			
Social Anxiety score	Between Groups	5.743	1	5.743	7.452	.007
	Within Groups	183.419	238	.771		
	Total	189.162	239			
Social avoidance and distress (General) subscale	Between Groups	6.037	1	6.037	6.278	.013
	Within Groups	228.862	238	.962		
	Total	234.899	239			
Fear of Negative Evaluation subscale	Between Groups	7.049	1	7.049	6.866	.009
	Within Groups	244.332	238	1.027		
	Total	251.380	239			
Total Internet Use	Between Groups	424.553	1	424.553	4.237	.041
	Within Groups	22647.483	226	100.210		
	Total	23072.035	227			
Total Media Consumption	Between Groups	358.629	1	358.629	4.633	.032

(Authentic & Unauthentic)				
	Within Groups	18421.354	238	77.401
	Total	18779.983	239	

### Discussion

Results from this sample indicated that there was a significant, positive correlation between social anxiety and total internet use, as well as compulsivity of internet use. This demonstrates a relationship between each factor, where internet use and compulsivity are higher, social anxiety levels will also be higher. These findings may indicate that excessive or extended time on the internet may increase social anxiety levels in the individual. Another possible interpretation is that those who have high social anxiety spend greater amounts of time on the internet. This finding may be taken into consideration for those who treat individuals with social anxiety, particularly teenagers and college-age students who spend a bulk of their free time on the internet. Decreasing this excessive use may relieve some of the feelings of social anxiety.

Consistent with findings of both Shepherd and Roberts that those with social anxiety may find comfort in the anonymity that the internet provides, allowing them to avoid the face-to-face interactions that they fear (Roberts et al., 2000; Shepherd & Edelman, 2005), the space that the internet provides for users to feel anonymous allows users to truly express themselves without the fear of negative evaluation or awkwardness that some “real-life” situations cause. This feature of the internet may be what attracts individuals with social anxiety that struggle to make meaningful connections in person. Excessive use and compulsivity may become a factor while the individual is searching, or has found that connection, or as a result of lack of social connections and needing something to fill their free time.



As for the unauthentic and authentic media consumption, results indicated that there was a significant, positive correlation between social anxiety and authentic media consumption, and a nonsignificant positive correlation between social anxiety and unauthentic media consumption. Contrary to both hypotheses three and four, this would indicate that those who spend greater time on websites that foster community and connection actually have higher levels of social anxiety. For websites where unauthentic media is portrayed, a positive, but nonsignificant correlation was found. This demonstrates that, similar to the authentic media consumption, social anxiety levels were higher at higher consumption levels, but not at a significant level.

An explanation for these results may involve one of the shortcomings of the study. The authentic and unauthentic subscales were created by the researcher from the Computer and Cell Phone sophistication scale that was used for the total internet usage measures, post-data collection. Findings that both indicate higher social anxiety with higher media consumption (unauthentic and authentic) may be related to the finding of a positive correlation between overall total internet use and social anxiety.

As for the exploratory analysis that were completed, the most notable were the sex differences found in the one-way ANOVA in Table 3. Females had a higher mean in social anxiety, total internet use, and total media consumption (unauthentic and authentic). Results indicate that females overall may be more susceptible to feelings of social anxiety, including a fear of negative evaluation, and social avoidance and distress, as well as spending more time on the internet and consuming media overall. This supports the finding from Hypothesis 1 where social anxiety increased as internet use increased, because females from this sample tended to have higher social anxiety levels, as well as higher internet use. Individuals who treat those with

social anxiety may want to keep these findings in mind, particularly how social anxiety effects the opposite sexes differently, and how they each may cope with their feelings.

Age did not have any significant correlation with social anxiety or compulsivity, but it did have a statistically significant negative correlation with total internet usage, which demonstrates the relationships that these young adults have with technology and the internet today. As age increased, total internet use decreased, showing why this study focusing on the age group of college students specifically, was so essential.

While household income did not have any statistically significant correlations with total internet use or compulsivity, it did have a significant negative correlation with social anxiety. This demonstrates the relationship that emerged in our sample between income and social anxiety, where income was higher, social anxiety was lower. This may have to do with opportunities or resources that are more readily to individuals who come from a wealthier household, that gives them more confidence, or allows them to not spend excessive amounts of time worrying about social comparisons.

This finding regarding social anxiety and income was particularly interesting, although another possible limitation of this study was the wording of the question when participants reported their income. Participants were asked their household income, even if they still lived at home with parents, so it is difficult to know if these results reflect individual incomes or family incomes, but an interesting finding for future research regardless. For example, if a participant grew up in a wealthy household, but has since moved out on their own, their reported response would not accurately reflect their upbringing, which plays a large role in identity development early on. One could possibly look at what effects income has on self-esteem, confidence or security and what role those factors play in the individual's social anxiety.

Another suggestion for future research would be a more focused and in-depth look at what differentiates these types of social media, regarding the unauthentic and authentic media websites. Examining what exactly users spend the most time doing on these particular websites, and feelings that appear following the use of each type of media may give a better picture of what effects different types of media have on users. The sex differences uncovered within this sample, particularly the significant difference in females and males when it comes to fear of negative evaluation and the effects this may have in specific areas of life such as the workplace or classroom. For example, how early on do the sex differences take effect? Are females worrying about the negative evaluations of others as early as kindergarten or does this develop later on? As for the workplace, does social anxiety effect the behaviors exhibited in the job? Do females behave differently in interviews or when vying for promotions in fear of coming off too pushy and others forming a negative opinion of them?

In conclusion, the sex differences and correlations that were found from this sample should be considered by mental health counselors, teachers, supervisors, and anyone who manages or works with a group of people to accurately assess the emotions and struggles that people are dealing with. This research uncovers an important relationship between those who struggle with social anxiety and excessive internet usage. Whichever way the relationship unveils (social anxiety is high so the individual goes on the internet frequently for interaction or frequent internet use is high and in turn social anxiety is strengthened) the results of the correlations are concerning, particularly in a time where the internet becomes increasingly advanced for entertainment and needs fulfillment. The data presented here should be particularly concerning for parents who are raising children in this digital age, as well as the young adults who use the internet and all of its facets most often.

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## Appendix A

(La Greca + Stone, 1993)

**Social Anxiety Scale for Adolescents Revised**

Please rate each item is true for you. *never* = 1, *seldom* = 2, *now and then* = 3, *often* = 4, *all the time* = 5

1. I worry about doing something new in front of others.
2. I worry about being teased.
3. I feel shy around people I don't know
4. I only talk to people I know really well
5. I feel that peers talk about me behind my back
6. I worry about what others think of me
7. I'm afraid that others will not like me
8. I get nervous when I talk to peers I don't know very well
9. I worry about what others say about me
10. I get nervous when I meet new people
11. I worry that others don't like me
12. I am quiet when I'm with a group of people
13. I feel that others make fun of me
14. If I get into an argument, I worry that the other person will not like me
15. I'm afraid to invite others to do things with me because they might say no
16. I feel nervous when I'm around certain people
17. I feel shy even with peers I know very well
18. It's hard for me to ask others to do things with me

Social Avoidance and Distress - Now: 1, 3, 4, 8, 10, 16  
 Social Avoidance + Distress - General: 12, 15, 17, 18  
 Fear of Negative Evaluation: 2, 5, 6, 7, 9, 11, 13, 14

Sum items for each subscale

Sum all for overall social anxiety total

## Appendix B

**Compulsive Internet Use Scale—English Version CIUS (14 items)**

0 = never, 1 = rarely, 2 = occasionally, 3 = frequently, 4 = very frequently

1. Do you find it difficult to stop using the Internet when you are online (e.g., “just a few more minutes”)?
2. Do you often continue to use the Internet despite your intention to stop?
3. Do others (e.g., friends and family) say you should use the Internet less?
4. Do you prefer to use the Internet instead of spending time with others (e.g., friends and family)?
5. Are you short of sleep because of the Internet?
6. Do you think about the Internet, even when not online?
7. Do you look forward to your next Internet session?
8. Do you think you should use the Internet less often?
9. Have you unsuccessfully tried to spend less time on the Internet?
10. Do you rush through your homework/schoolwork in order to go on the Internet?
11. How often do you neglect your daily obligations (work, school, or family life) because you prefer to go on the Internet?
12. How often do you go on the Internet when you are feeling down?
13. How often do you use the Internet to escape from your sorrows or get relief from negative feelings?
14. How often do you feel restless, frustrated, or irritated when you cannot use the Internet?

Appendix C

**Computer and Cell Phone Sophistication (15 items)**

1. On what device do you access the internet the most?

- Computer / Laptop
- Smartphone
- Tablet / iPad
- Gaming Device (Playstation, Xbox)
- Other (please specify): \_\_\_\_\_

For each of the following online resources, indicate how frequently you use each, using the appropriate seven-point scale below.

6=10+ times a day, 5=5-9 times a day, 4=2-4 times a day,

3=once a day, 2=4-6 times a week 1=1-3 times a week, 0=never

Items	Activity	Frequency of Use
2.	Chatrooms	
3.	Networking activity / Social Media	
4.	TV/Movie streaming services (e.g., Netflix)	
5.	Youtube	
6.	Gaming	
7.	Blogs (e.g., Tumblr)	
8.	Email	
9.	Shopping	

For each of the following Social Networking Sites, indicate how frequently you use each, using the appropriate seven-point scale for each.

6=10+ times a day, 5=5-9 times a day, 4=2-4 times a day,

3=once a day, 2=4-6 times a week 1=1-3 times a week, 0=never

Items	Site	Uses per day
10.	Facebook	
11.	Twitter	
12.	Instagram	
13.	Snapchat	
14.	Tumblr	
15.	Pinterest	