

THE MEDIATING EFFECTS OF PROBLEMATIC INTERNET USAGE ON SOCIAL
PHOBIA AND PSYCHOSOCIAL WELL-BEING

By

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To my family, supervisors, mentors, professors, the students in the Counselor Education program, and all who have influenced my education

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LIST OF ABBREVIATIONS

BDI-II	Beck Depression Inventory (Revised Edition)
GPIUS	General Problematic Internet Usage Scale
LSAS	Liebowitz Social Anxiety Scale
p	significance
r	Pearson-product correlation
R ²	Variance accounted for
STAI-Trait	State Trait Anxiety Inventory-Trait

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The increasing expansion and popularity of the Internet and other media activities have led to concern among researchers as to the implications of this phenomenon on the user's mental health and well being. The purpose of this thesis was to explore the effects of Internet usage as well as other media activities on social phobia symptoms, anxiety, depression, and loneliness.

Participants were comprised of undergraduate students recruited at the University of Florida. Participants completed a packet of questionnaires and self-reported assessments that measured media usage, problematic Internet use, social phobia symptoms, anxiety, depression, and loneliness.

Preliminary analysis revealed that the Media Usage Scale was not reliable (.064); therefore the GPIUS was used as a mediator instead. The analysis revealed significant direct effects for the various *c paths*, LAS to loneliness, depression, and anxiety. GPIUS total score partially mediated the relationship between LAS total score and UCLA loneliness total score ($R^2 = .2114$, $F(5,296) = 15.87$, $p < .000$), LAS total score and BDI-II total score ($R^2 = .2558$, $F(5,324) = 22.27$, $p < .000$), and LAS and STAI total score ($R^2 = .3907$, $F(5,342) = 43.85$, $p < .000$).

Social phobia symptoms were positively related to problematic Internet usage, anxiety, depression, and loneliness. Additionally, problematic Internet usage partially mediated the relationships between social phobia symptoms and loneliness, depression, and anxiety. This study implicates the importance of screening and monitoring of problematic Internet use prior to using the Internet for therapeutic reasons.

CHAPTER 1

INTRODUCTION

Overview

The increasing popularity and expansion of the Internet and other technological media such as cellular phones has led to increased usage in recent years. Social networking on popular sites like Facebook has grown exponentially, with a total of 500 million users and counting, as of July 2010 (Zuckerberg, 2010). Additionally, cellular phone ownership has continued to rise, especially among younger populations. According to a survey at a large university, 93% of students owned a cellular phone (Beaver, Knox, & Zusman, 2010). As technology users continue to grow, researchers have become more concerned about the implications of this expanding phenomenon (Mitchell, Lebow, Uribe, Grathouse, Shoger, 2011). The goal of this thesis study is to examine the potential benefits and disadvantages of the growth of different media activities, the possible mental health implications for users with social phobia symptoms, and the effects of these media activities on psychosocial wellbeing for users with social phobia symptoms.

Media Usage

An increase in media activities has led to a multitude of research concerning the impact of these activities, specifically the use of the Internet (Dimitri, Moreno, Jelenchik, Myaing & Zhou, 2011; Caplan & High, 2011). With the increasing popularization of the Internet among college students, research on the addictive nature of online activity and the potential negative impact of Internet use has become a growing topic (Greenfield, 2011). For example, among a sample of college students, using the Internet for longer than five hours a day was significantly associated with problematic Internet use (Odaci

& Kalkan, 2010). The researchers considered problematic Internet use to include using the Internet to avoid unpleasant emotions, addictive properties such as being unable to control one's use, and placing a large amount of importance on Internet use. In addition to amount of Internet use, the researchers also found problematic Internet use to be significantly correlated to loneliness and dating anxiety. Odaci and Kalkan (2010) concluded that the Internet may be supplementing or replacing offline social activity and support. In contrast to Odaci and Kalkan; Valenzuela, Park, and Kee (2009) found a positive relationship between the intensity of Facebook use (a social networking site), measured by the users' number of friends, duration of use, emotional attachment to the site, and life satisfaction among college students. These findings suggest that online social activities may be positively related to well-being. These contradictory findings suggest that Internet usage should not be examined as a single universal construct but should be divided into different constructs.

Interactive Media

In addition to overall usage, particular Internet activities have become a hot topic among researchers. Liu and Larose (2008) found that the type of usage was a better predictor of perceived social support among college students than the quantity of hours spent online. Online social self-efficacy, or the ability to effectively communicate with others on the Internet, was positively related to satisfaction of social well-being at school.

Communication through the use of chat rooms provides users with a quick and instantaneous mode of online contact. Researchers have found a link between chat room usage and personality types with conflicting results. According to Campbell, Cumming and Hughes (2006) and Peris and colleagues (2002), socially oriented people

were more likely to participate in chat rooms than those who were introverted. Chat room users also reported lower symptoms of social phobia than nonusers. In contrast to these findings, Anolli, Villani and Riva (2005) found that chat room users tended to be introverted as defined by the Eysenck Personality Short Scale (EPQ-R). Contradictions in these studies findings may be explained by the types of chat room usage examined. Anolli et al. (2005) specifically investigated chat room usage for the purpose of relationship development, while Peris and colleagues (2002) examined total chat room use regardless of the purpose of use.

Another example of online social self-efficacy includes the use of social networking sites. According to Hansen, Childress, and Trujillo (2010), social networking had a positive effect on students' perceived connection to other students. In addition to connection, social networking users have also reported using these sites for social and informational support (Chung, 2011).

Non-interactive Media

With research indicating that communication through various media activities may increase social self-efficacy, the effects of non-interactive types of media activities, or activities not used for the purpose of communication, such as Internet surfing have caused some researchers to be concerned over the potential social replacement effects that these activities may serve. In a study examining the effects of Internet use, non-communicative online activity predicted higher levels of depression and social anxiety among participants with perceived low friendship quality (Selfhout, Branje, Delsing, ter Bogt, & Meeus, 2009). The findings of Selfhout et al. (2009) highlight the importance of differentiating between interactive and non-interactive media usage when examining the effects of these types of activities on mental health. While the research has indicated a

positive relationship between social well-being and interactive media usage as well as the negative impact of non-interactive media, studies have not examined the mediational relationship between these activities on social phobia symptoms and social well-being.

Social Phobia and Media Activities

With evidence supporting the social advantages of interactive media and negative effects of non-interactive media, current research examining social phobia and the Internet has begun to emerge. Researchers have found positive relationships between social phobia symptoms and Internet usage as well as other socially interactive technologies including text messaging and web cams (Rosenthal, 2010; Stevens & Morris, 2007). Similarly, Madell and Muncer (2006) found chat room usage in participants with social phobia to be slightly higher than those without the disorder. The investigators believed that the social phobia group's utilization of chat rooms indicated that the group was achieving social gratification through the Internet. The authors suggested that the social phobia group may have preferred chat room communication due to the lower threat of scrutiny compared to face to face communication. In addition to interactive media, researchers have also found a positive relationship between non-interactive activities including Internet browsing for personal use and social phobia (Mazalin & Moore, 2003). While these studies indicate a relationship between media usage and social phobia, the studies failed to examine the effects of these activities on well-being. Examining if these activities are supplementing or decreasing social well-being in individuals with higher social anxiety is an important next step.

Psychosocial Wellbeing

Although research indicates a clear positive relationship between social phobia and media usage, a consensus does not exist concerning the effects of media usage on psychosocial well-being. According to Kavavaugh, Carroll, and Rosson (2005) the use of the Internet can display a positive impact on one's psychosocial well-being including the strengthening of offline relationships and sense of belonging to one's community. In contrast to these findings, Stepanikova, Nie and He (2010) concluded that time spent on the Internet positively correlated to loneliness and resulted in lower life satisfaction. To further examine the impact of online activities, Kim and colleagues (2009) found that using the Internet for entertainment purposes had a negative impact on psychosocial wellbeing. Similarly, Smyth (2007) found that video game usage, specifically massively multiplayer online role-playing games, had a negative effect on participants' social wellness. The inconsistencies of the research related to psychosocial well being and Internet usage emphasize the importance of differentiating between interactive and non-interactive media.

Purpose of the Study

The purpose of this study is to further examine the effects of interactive and non-interactive media usage and social phobia symptoms on psychosocial wellbeing. Additionally, there are very few valid and reliable measurements that examine Internet usage, and none to the researcher's knowledge that include various sources of media such as cell phone usage and gaming consoles. Most of these scales, including the General Problematic Internet Usage Scale (Caplan, 2002) fail to differentiate between interactive and non-interactive Internet activities. Therefore, a questionnaire constructed by the researcher will be utilized to fully assess a variety of media activities.

To further examine interactive social media activities, the questionnaire will break these down into two categories: immediate and delayed. Prior research has indicated a faster response, higher incentive, and preference for immediate over delayed rewards (Luo, Ainslie, Giragosian, & Monterosso, 2009; Wittmann, Lovero, Lane, & Paulus, 2010). Therefore, examining the differential impact of immediate versus delayed social media activities on psychosocial well-being is important. The researcher predicts that the immediacy of the activity may have an impact on social reward. The researcher designed the study to examine differences between delayed and immediate interactive online usage and whether non-interactive media activities mediate the relationship between social phobia and psychosocial well-being.

Aims and Hypotheses

Specific aim 1. To establish internal consistency, construct validity, and convergent validity of the Media Usage Scale with the General Problematic Internet Usage Scale.

Hypothesis 1. It is hypothesized that the Media Usage Scale will have internal consistency, construct validity, and convergent validity with the General Problematic Internet Usage Scale.

Specific aim 2. To examine the relationship between social phobia symptoms and the total frequency and hours of total media usage in a sample of non-clinical college aged participants. If the Media Usage Scale is invalid, the relationship between the General Problematic Internet Usage Scale (GPIUS) total and social phobia symptoms will be examined.

Hypothesis 2. It is hypothesized that social phobia symptoms will have a significant positive correlation to the total frequency and hours of total media usage or GPIUS total.

Specific aim 3. To examine the relationship between social phobia symptoms and trait anxiety, depression, and loneliness in a sample of college aged participants.

Hypothesis 3. It is hypothesized that social phobia symptoms will have a significant positive correlation to trait anxiety, depression, and loneliness.

Specific aim 4. To examine how the relationship between social phobia symptoms and trait anxiety, depression, and loneliness is mediated by immediate and delayed interactive and non-interactive media frequency and duration or GPIUS total.

Hypothesis 4. It is hypothesized that immediate and delayed interactive and non-interactive media frequency and duration or GPIUS total will mediate the relationship between social phobia symptoms and trait anxiety, depression, and loneliness. Immediate interactive media activities will have a stronger effect on the relationship between social phobia symptoms and trait anxiety, depression, and loneliness than delayed interactive media activities. Both interactive activities will influence the relationship in a positive direction. On the other hand, it is hypothesized that non-interactive media activities will influence the relationship in a negative direction

CHAPTER 2 METHOD

Participants

Participants were comprised of 427 undergraduate students recruited at a large university (276 female, 151 male). 63.7% were White, 14.9% Latino, 9.1% African American, 5.8% Asian American, .5% Asian East Indian, and 5.3% other. The average year in college was 2.28 and the mean age of the participants was 19.63.

Measures

Participants completed a packet of the following questionnaires and self-reported assessments; the *Media Usage Scale* (MUS), the *State-trait Anxiety Inventory* (STAI-Y), the *Liebowitz Social Anxiety Scale* (LSAS), the *UCLA Loneliness Scale (Version 3)*, the *Beck Depression Inventory (Revised Edition)* (BDI-II), and the *General Problematic Internet Usage Scale* (GPIUS).

The *Media Usage Scale* is a survey constructed by the researcher that examines the frequency, duration, and type of media activities used by the sample population. The questionnaire consists of 38 questions that assess the frequency and duration of use of media activities including emailing, chatting online, texting on the cell phone, online shopping, etc. The last six questions are pulled from the *General Problematic Internet Usage Scale* (Caplan, 2002), examining constructs such as loneliness, addiction, social phobia, and isolation. Items included statements such as “I feel safer relating to others online rather than face-to-face”, “I seek others online when I feel isolated”, and “I have gotten in trouble at work/school because I was online”.

The *State-trait Anxiety Inventory* (STAI-Y) (Speilberger, Gorsuch, & Lushene, 1970) is a self-report questionnaire that is used to measure anxiety. The questionnaire

includes forty questions split into two sections. The first half of the report measures state anxiety, a temporary condition of perceived anxiety. The second half measures trait anxiety, the stable state of one's susceptibility to anxiety. For the purposes of this study, the second half of the inventory was used alone. The STAI-Y is both a reliable and valid measure. The measure exhibits convergent validity with the IPAT Anxiety Scale, Manifest Anxiety Scale, and Affect Adjective Check List ($r=.75$, $.80$, and $.52$).

The *Liebowitz Social Anxiety Scale (LSAS-SR)* (Liebowitz, 1987) is a twenty-four item self-report questionnaire used to measure fear and avoidance in social interaction and performance situations. According to Rytwinski (2009) the LSAS-SR is a cost-effective and accurate psychometric determinant of the presence of social anxiety disorder, with a classification accuracy of 93.9% in a sample of 291 participants previously assessed with the Structured Clinical Interview.

The *UCLA Loneliness Scale (Version 3)* (Russell, Peplau, & Cutrona, 1980) is a self-report survey consisting of twenty questions that examine perceived loneliness. Russell (1996) found the measure to contain high internal consistency ($r=.94$), high convergent validity with the previous UCLA scale ($r=.91$), and the Beck Depression Inventory ($r=.62$).

The *Beck Depression Inventory (Revised Edition) (BDI-II)* (Beck, Steer, Ball, & Ranieri, 1996) consists of twenty-one self-reported questions used to measure depressive symptoms. The inventory displays high internal consistency ($r=.73$ - $.95$) and test-retest reliability ($r=.60$ - $.83$).

The *General Problematic Internet Usage Scale (GPIUS)* (Caplan, 2002) consists of 29 items examining negative consequences of the Internet, social benefit/social

comfort, and excessive use. The scale contains high convergent validity with Davis's Online Cognitive Scale ($r=0.61$), high internal consistency ($r=0.94$), and high test-re-test reliability ($r=0.81$).

Procedure

Approval of the study was obtained from the Institutional Review Board. Participants were recruited from undergraduate courses at a large Southeastern public university and received extra credit for participating in the study. Students were consented by trained research assistants and completed the packets in front of the research assistants. The surveys took approximately thirty minutes for participants to complete. After completion, participants received a copy of the consent form.

Data Analytic Strategy

Preliminary analysis was conducted to test for reliability among the measures and normative distribution of each variable to test for skewness and kurtosis. Using a blom transformation, non-normative variables were corrected for skewness and kurtosis. A factor analysis was conducted to test for factor loadings. To examine the first aim of the study, which was to establish internal consistency, convergent validity, and construct validity of the Media Usage Scale with the General Problematic Internet Usage Scale, a Cronbach alpha score was obtained for the measure. Since the Media Usage Scale (MUS) yielded a poor alpha score, a validity score was not necessary. Aims 2 and 3, which were to examine the relationships between social phobia symptoms and the total frequency and duration of media usage or GPIUS total and to examine the relationships between social phobia symptoms and trait anxiety, depression, and loneliness, were examined using Pearson-product correlations, a method used to look at the linear relationships between variables (Kornbrot, 2005). To examine the fourth aim of the

study, which was to examine how the relationship between social phobia symptoms and trait anxiety, depression, and loneliness is mediated by immediate and delayed interactive and non-interactive media frequency and duration or GPIUS total, a mediation analysis was conducted to examine the relationship between LSAS total score and UCLA loneliness total score, BDI-II total score, and STAI-Y trait total score with GPIUS total score as the proposed mediator. The analysis was conducted using Preacher and Hayes' (2008) mediation model, a method used to study indirect effects in ordinary least squares (OLS) regression.

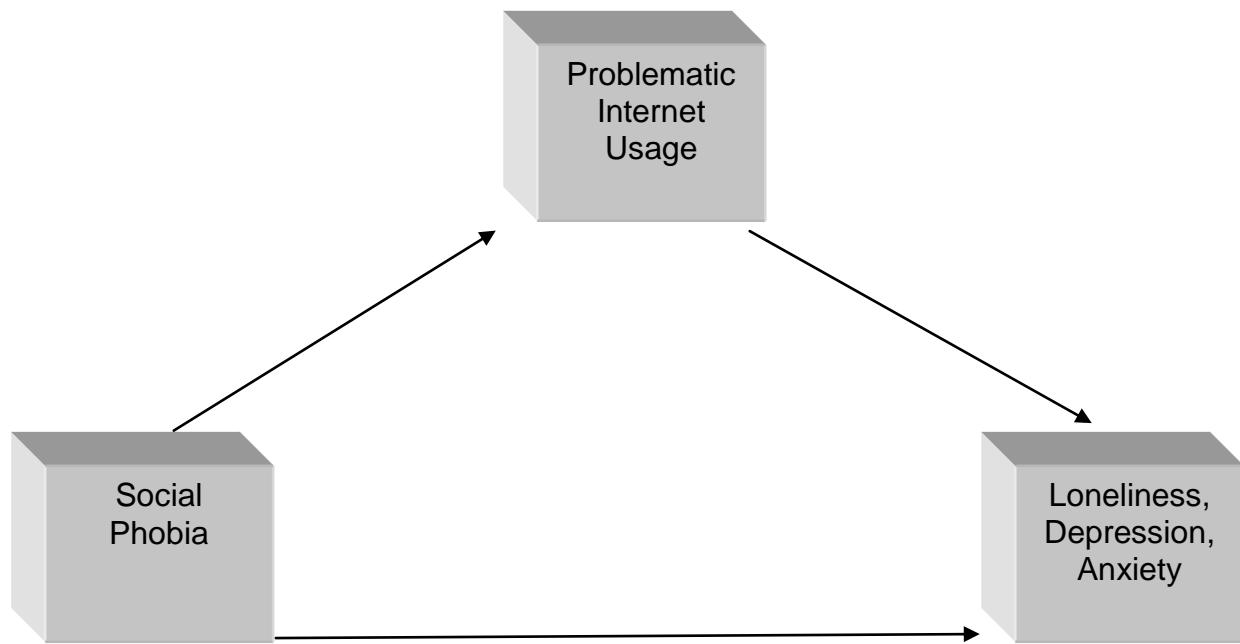


Figure 2-1. Mediation model with loneliness, depression, and anxiety as the outcome variables.

CHAPTER 3 RESULTS

Preliminary analysis revealed skewness in the UCLA Loneliness total score (5.38), GPIUS total score (2.18), the Liebowitz Social Anxiety total score (5.22), the STAI trait total score (5.21), and both skewness and kurtosis in the BDI total score (14.86, 24.81). These variables were normalized using a blom transformation.

Specific Aim 1

The first aim of the study was to establish internal consistency, convergent validity, and construct validity of the Media Usage Scale with the General Problematic Internet Usage Scale. To examine reliability, each measure was tested and yielded adequate Cronbach's alpha coefficients, except the Media Usage Scale (.064). Since a scale cannot be valid if it is unreliable it was determined that the Media Usage Scale was both an invalid and unreliable measure, thus this scale was not used as a mediator in the analysis.

Specific Aim 2

The second aim of the study was to examine the relationship between social phobia symptoms and the total frequency and duration of total media usage in a sample of non-clinical college aged participants. If the Media Usage Scale were determined to be invalid, the relationship between the GPIUS total and social phobia symptoms would be examined instead. Since the Media Usage Scale was determined to be invalid and unreliable, the GPIUS was substituted for the MUS and correlated to LSAS total score while controlling for gender, body mass index (BMI), and income. Prior research findings have revealed significant relationships between gender (Johnson, 2011; Yang, Chiu, & Chen, 2011), BMI (Cheng-Fang et al., 2010), socio-economic status (Hargittai,

2010) and the frequency of specific patterns of technology use and activities. Additionally, data analysis of this study revealed significant relationships between gender and STAI-Y trait total ($r = .123$) and LSAS total ($r = .204$), BMI and UCLA Loneliness total ($r = .129$), and income and UCLA Loneliness total ($r = -.130$). Therefore these variables were controlled for. The GPIUS total score was significantly positively correlated to LSAS total score ($r = .347$), Additionally, GPIUS was correlated with the UCLA Loneliness total score, BDI total score, and STAI trait total score while controlling for gender, BMI and income. The GPIUS total score was significantly positively correlated to UCLA loneliness total score ($r = .297$), BDI-II total score ($r = .369$), and the STAI-Y trait total score ($r = .440$).

Specific Aim 3

The third aim of the study was to examine the relationship between social phobia symptoms and trait anxiety, depression, and loneliness. Social phobia was positively related to trait anxiety ($r = .586$), depression ($r = .440$), and loneliness ($r = .372$).

Specific Aim 4

The fourth aim of the study was to examine how the relationship between social phobia symptoms and trait anxiety, depression, and loneliness was mediated by immediate and delayed interactive and non-interactive media frequency and duration or GPIUS total. GPIUS total was analyzed as the mediator because the MUS was determined to be invalid and unreliable.

A preliminary factor analysis revealed low factor loadings between loneliness, anxiety, and depression; therefore these variables were examined separately. Using Preacher and Hayes' (2008) method of studying indirect effects in ordinary least squares (OLS) regression, the researcher tested the strength of the relationship

between the independent variable and the assigned mediator (Liebowitz Social Anxiety Scale (LSAS) and GPIUS score, *a path*), the total effect of the independent on the dependent variable (LSAS total score and UCLA Loneliness total score, BDI-II total score, and STAI-Y total score respectively; *c path*), after examining the indirect effect of the independent variable on the dependent variable through the mediator (*ab path*). Preacher and Hayes' (2008) test for indirect effects in SPSS calculates a bootstrapped estimate of this indirect effect (1000 re-samples generated with bias correction and acceleration).

The analysis revealed significant direct effects for the various *c paths* (social phobia to loneliness, depression, and anxiety). GPIUS total score partially mediated the relationship between LSAS total score and UCLA loneliness total score ($R^2 = .2114$, $F(5,296) = 15.87$, $p < .000$), LSAS total score and BDI-II total score ($R^2 = .2558$, $F(5,324) = 22.27$, $p < .000$), and LSAS and STAI-Y total score ($R^2 = .3907$, $F(5,342) = 43.85$, $p < .000$).

Additional Findings

Individual items of the Media Usage Scale were correlated to GPIUS total score, LSAS total score, UCLA loneliness total score, BDI-II total score, and STAI-Y total score while controlling for gender, BMI, and income. After controlling for these variables, individual MUS items were not significantly correlated to GPIUS, LSAS, UCLA, BDI-II, and STAI-Y total scores. Females participated in significantly more social networking than males. Males participated in significantly more non-interactive and interactive computer and video gaming than females. Higher BMI was negatively associated with frequency and duration of time spent on a social networking site for non-interactive purposes ($r = -.14$, $-.12$), sending instant messages ($r = -.14$), and entering a chat room

($r = -.13$). Higher BMI was positively correlated with time spent sending and responding to email ($r = .10$), time spent playing non-interactive computer or video games ($r = .15$), selling an item online ($r = .14$), talking on the phone or video webcam ($r = .17$), and blogging ($r = .13$). Income was negatively correlated with the frequency and duration of time spent updating a status on a social networking site ($r = -.12, -.11$), and frequency and duration of time spent selling items online ($r = -.13, -.11$). Income was positively associated with going on the Internet for non-interactive purposes such as surfing the web and researching ($r = .14$). Gender, BMI, and income were not significantly correlated with GPIUS total score.

Table 3-1. Demographics

Variable	Means	
	Males	Females
Gender	151	276
Age		19.63
Income		70,000-79.999

Table 3-2. Reliability of measures.

Measure	Cronbach Alpha
STAI-Trait	.912
BDI	.879
UCLA Fear	.902
UCLA Avoidance	.874
GPIUS	.925
Media Usage Scale	.064

Table 3-3. Measures of means

Measure	N	Mean	Std. Dev.
UCLA Loneliness Scale_Total	361	34.83	8.96
GPIUS_Total	424	60.41	16.80
LSAS_Total	395	37.55	20.60
BDI_Total	393	7.38	6.66
STAI_trait_Total	416	37.45	9.84

Table 3-4. Correlations of Measures

	GPIUS_Total	UCLA_Loneliness _Total	BDI_Total	STAI_trait _Total	LSAS_Total
GPIUS_Total	1.00**	.297**	.369**	.440**	.347**
UCLA_Loneliness_Total	.297**	1.00**	.455**	.577**	.372**
BDI_Total	.369**	.455**	1.00**	.728**	.440**
STAI_trait_Total	.440**	.577**	.728**	1.00**	.586**
LSAS_Total	.347**	.372**	.440**	.586**	1.00**

**p<.001

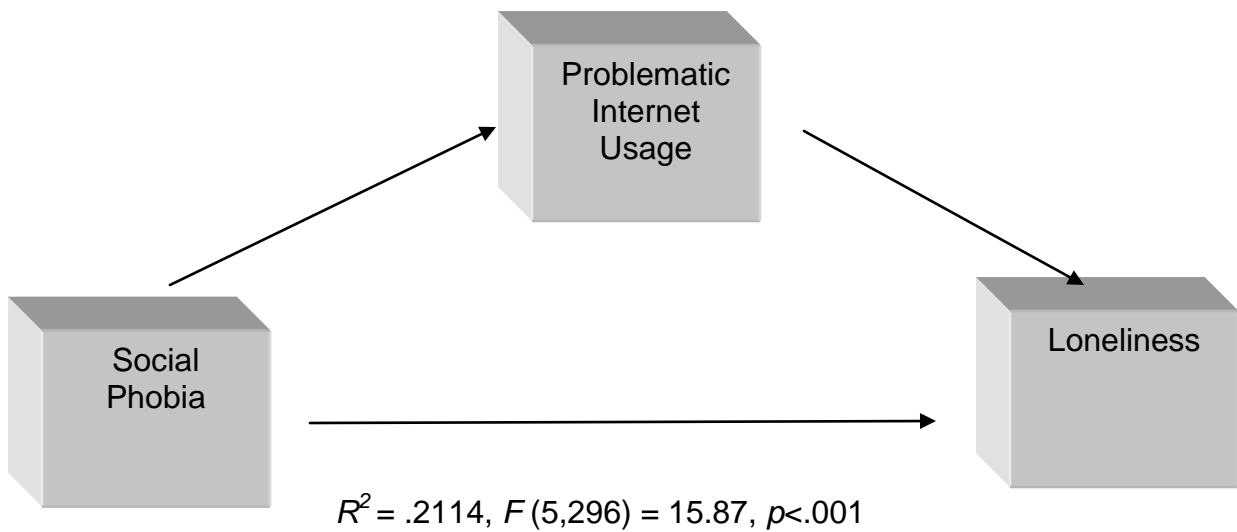


Figure 3-1. Mediation model with loneliness as the outcome variable.

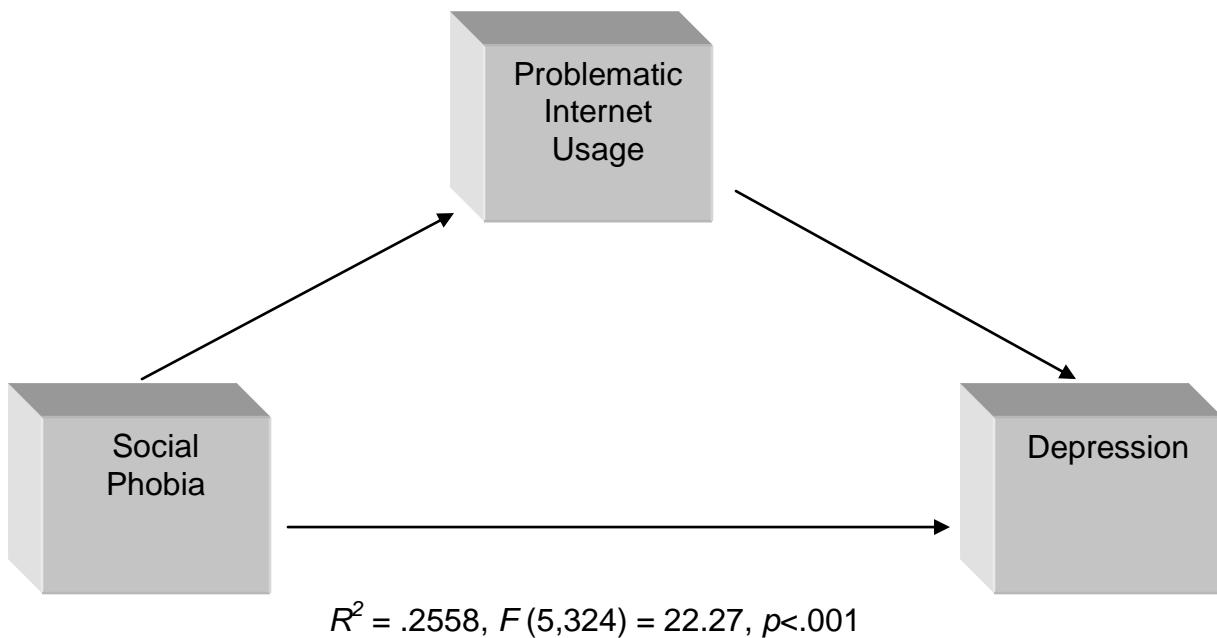
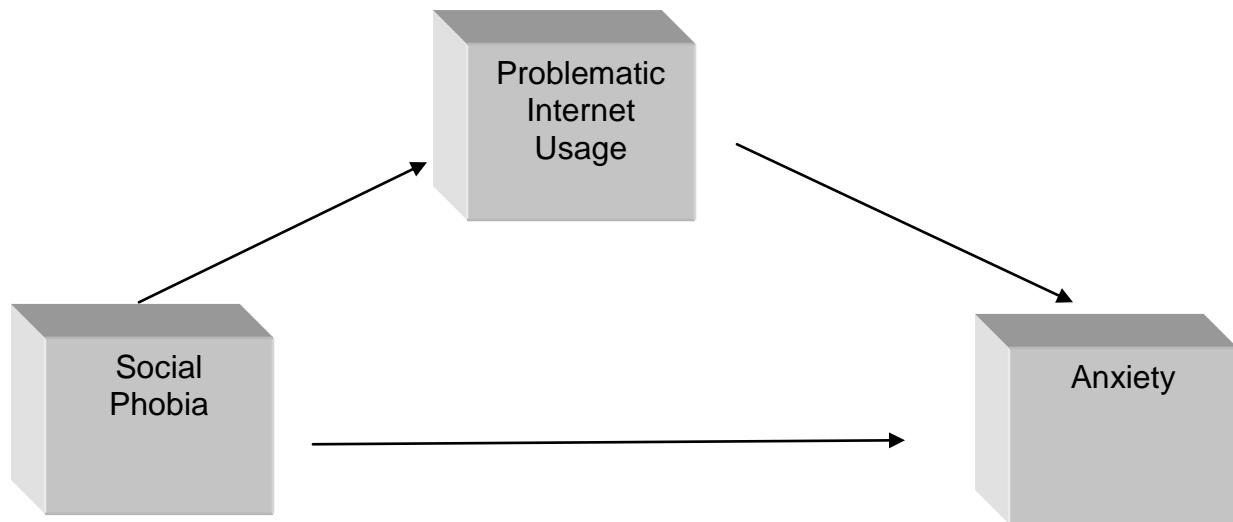


Figure 3-2. Mediation model with depression as the outcome variable.



$$R^2 = .3907, F(5,342) = 43.85, p < .001$$

Figure 3-3. Mediation model with anxiety as the outcome variable.

CHAPTER 4 DISCUSSION

The results of the study revealed significant positive relationships between social phobia and loneliness, depression, and anxiety. Problematic Internet usage was significantly related to these variables as well. Additionally, problematic Internet usage partially mediated the relationships between social phobia and loneliness, depression, and anxiety. Problematic Internet usage was determined to be a partial mediator since the relationships between social phobia and the outcome variables (loneliness, depression, and anxiety) were also significant. Therefore, although problematic Internet usage did not fully account for these relationships, it was found to significantly strengthen the mediation model.

Although the Media Usage Scale was determined to be unreliable, individual items of the scale were analyzed for significant relationships to the following variables; problematic Internet usage, social phobia, loneliness, depression, and anxiety. However, after controlling for gender, BMI, and income, individual items on the MUS were not correlated to GPIUS, LSAS, UCLA Loneliness, BDI-II, and STAI-Y total scores. While some individual items on the MUS correlated with gender, BMI, and income, these variables did not reveal significant relationships with problematic Internet usage. Data analysis also revealed that individual items on the Media Usage Scale were insignificant mediators.

Despite these insignificant findings, it is important to note that while participation in specific media activities and hours spent participating in these activities did not mediate the relationship between social phobia symptoms and psychosocial well-being, problematic Internet usage proved to be significant. Problematic Internet use included

using the Internet when feeling isolated or lonely, replacing the Internet with face to face activity, and Internet addiction (Caplan, 2002). Problematic Internet usage was significantly correlated to social phobia symptoms, trait anxiety, depression, and loneliness. Additionally, problematic usage significantly increased the relationships between social phobia symptoms and anxiety, depression, and loneliness.

These findings are similar to other studies that suggest that time spent on the Internet does not correlate to psychosocial well-being (Campbell, Cumming, & Hughes, 2006). This evidence contrasts the results of Tonioni and colleagues' (2012), in which hours of Internet use was positively related to anxiety and depressive symptoms. However, in accordance with the present study, the researchers also found a positive correlation between using the Internet to replace face-to-face interaction and both anxiety and depressive symptoms. Additionally, other studies have found that using the Internet for problematic purposes, such as using the Internet to replace face-to-face activity or using the Internet when feeling isolated or lonely, is negatively related to psychosocial well-being (Odaci & Kalkan, 2010; Caplan, 2002). Similarly, Weidman, Fernandez, Levinson, Augustine, Larsen, and Rodebaugh (2012) found that participants with social phobia who used the Internet to replace face to face interaction had a lower quality of life and higher depression than those who did not use the Internet to replace face to face interaction. The results of the current study suggest that it is important to examine purpose of use rather than specific activities and hours spent on the Internet when determining unhealthy Internet habits. The insignificance of the individual media activities and hours spent participating in the activities offers an explanation of why the Media Usage Scale was found to unreliable. While the scale can be used for qualitative

purposes as an analysis of individual items, it should not be used for measuring or diagnosing unhealthy media usage.

In summary, the results of this study showed that problematic Internet usage was positively related to all of the constructs including social phobia symptoms, loneliness, depression, and anxiety. Social phobia symptoms were positively related to loneliness, depression, and anxiety. Finally, problematic Internet usage strengthened the relationships between social phobia symptoms and loneliness, depression, and anxiety. These findings show that problematic Internet usage partially mediated the relationship between social phobia symptoms and loneliness, depression, and anxiety.

Implications and Limitations

The present study findings suggest that it is important for counselors to examine the purpose of Internet usage and other media activities when determining problematic behavior and effects on psychosocial well-being with clients with social phobia symptoms. Research suggests a high frequency of Internet use among young adults (Loan, 2011; Assael, 2005) as well as other media forms such as cellular phone usage (Hanson, Drumheller, Mallard, McKee, & Schiegel, 2011). With the particularly high prevalence of media usage within this population, counselors should be aware of problematic Internet usage when working with college students, especially college students who present social phobia symptoms. Additionally, college students are often presented with unique social situations that can be particularly difficult for students who suffer from social phobia symptoms such as large classroom sizes, social events, and public speaking. Seim and Spates (2010), for example, found public speaking to be the second most common fear among a sample of college students. This has a high implication for college counselors who are likely to see students who present with social

phobia symptoms. The results of the present study suggest that problematic Internet usage should be addressed and treated, if necessary for students suffering from symptoms of social phobia.

With the advancement of technology such as the Internet, the popularity of the utilization of the Internet for therapeutic purposes has increased (Diggins, 2012; Paxling et. al., 2011; Moritz, Wittekind, Hauschildt, & Timpano, 2011). However, the present study suggests that counselors should screen for problematic Internet behavior prior to using the Internet as an alternative or adjunct to face-to-face therapy. Counselors can utilize the GPIUS prior to conducting therapeutic services over the Internet to help determine the utility and appropriateness of an online intervention. Additionally, counselors can use the assessment to monitor a client's Internet behavior. Screening and monitoring of Internet behavior may prevent further anxiety, depressive, and loneliness symptoms. Counselors should consider avoiding the use of the Internet for therapeutic interventions with clients with high problematic Internet usage scores. Additionally, counselors should limit or conclude use of the Internet for therapeutic interventions if the client begins to show problematic usage symptoms during treatment.

Further implications include the importance of treating problematic Internet use to help in treating anxiety, depression, and loneliness in clients with social phobia symptoms. Because Internet addiction is a fairly newly identified phenomenon and currently unrecognized in the *Diagnostic and Statistical Manual, Fourth Edition, Text Revision* (American Psychiatric Association [DSM-IV-TR], 2000), very few interventions have been explored for this disorder. One treatment model that has been created specifically for Internet addiction, a characteristic of problematic Internet use, is

Cognitive-Behavioral Therapy for Internet addiction (CBT-IA; Young, 2011). This model includes techniques that utilize cognitive and behavioral modification through daily Internet logs, cognitive restructuring for maladaptive beliefs such as worthlessness without the Internet, and harm-reduction therapy. The findings of the present study suggest that therapeutic interventions be explored for the use of treating problematic Internet use. While Internet addiction is one aspect of problematic Internet usage, according to Caplan (2002) other factors of problematic Internet usage include Internet use to alter mood, for social benefit, and for social control. Interventions aimed at treating problematic Internet usage should be explored for these factors in addition to the treatment of the addictive behaviors.

Additionally, counselors should assess for social phobia, loneliness, depressive, and anxiety symptoms when treating problematic Internet use. According to the findings of this study, problematic Internet use is positively related to these constructs. Therefore, it is important for counselors to assess for these symptoms when clients present symptoms of problematic Internet use and treat if necessary.

The limitations of this study include the use of non-clinical participants; thus the results cannot be applied to a clinical population. However, the use of a non-clinical population has further implications for the field of counseling since counselors often work with non-clinical clients. Another limitation includes the use of only college-aged participants from one university, which limited the diversity of the sample. While this limited the diversity of the sample of the study, the sample selection may have decreased the variability of the results thus increasing significance for the selected population.

Other limitations of the study include the researcher's decision to administer the surveys in person rather than online. Online administration could have provided the study with more variable results. However, the researcher's interest in a non-clinical population deemed the method of the study to be appropriate for the desired sample.

From the present study, problematic Internet usage can be determined to be a partial mediator, however, the direction of the relationship cannot be assumed. Therefore, a future direction of the study could further explore this relationship through the use of a longitudinal design. Other future directions for the study include examination with a clinical population and more diverse sample. Internet-based treatment for social phobia has raised special interest since many sufferers have difficulty attending face-to-face therapy and fear seeking treatment (Kessler, 2003).

Internet-based treatment for social phobia has been proven to be effective both with and without clinical assistance (Berger, Caspar, Richardson, Kneubhuler, Sutter, & Andersson, 2011; Aydos, Titov, & Andrews, 2009). It is important to examine problematic Internet usage within this clinical population as the popularity of Internet-based treatment increases. Additionally, it will be important to examine problematic Internet usage in a wide-range of clinical populations as the use of the Internet increases for the treatment of various disorders including anxiety disorders, post-traumatic stress disorder, alcohol abuse, and depression (Cartbring et al., 2011; Wagner, Schulz, & Knaevelsrud, 2012; Blankers, Koeter, & Schippers, 2011; Berger, Hammeril, Gubser, Andersson, & Caspar, 2011).

Conclusion

In conclusion, the findings of the present study imply that when examining problematic Internet behavior it is imperative that counselors look at the purpose of use

rather than the frequency and duration of use. Counselors should assess for problematic Internet usage when working with clients who present social phobia symptoms. Additionally, therapeutic interventions for the treatment of problematic Internet usage should be explored. Future directions of this study include examining Internet use in clinical populations and other demographic groups.

APPENDIX A INFORMED CONSENT

Protocol Title: Social Phobia and Media Usage

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:

The purpose of this study is to examine the mediating effects of interactive and non-interactive media usage on the relationship between social phobia and psychosocial well-being.

What you will be asked to do in the study:

You will be asked to fill out a packet of questionnaires measuring media usage, mood, social phobia symptoms, and personality.

Time required:

15-30 minutes

Risks and Benefits:

Minimal risk is involved in this study. You may find the questions to be monotonous. You may also feel uncomfortable about the personal nature of the questions. You will not benefit directly or personally from this study. The data collected in this study may be beneficial in developing and/or adjusting treatments for social phobia in the future. There are no financial benefits for participating in this study. Participants will be awarded extra credit for completing the study.

Compensation:

You will be awarded extra credit that will be worth less than 2% of your grade for completing this study.

Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your packet will be assigned a participant ID number. No identifying information will be connected to your responses. Your consent form will be locked in a room in the Behavioral Health Unit. Your name will not be used should the study get published.

Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Sondra Smith, Ph. D.; Department of Counselor Education; P.O. Box 117046, Gainesville, FL 32610; phone: 273-4328

Alachua County Crisis Center; 218 Southeast 24th Street, Gainesville, FL 32641-7516; (352) 264-6789

Whom to contact about your rights as a research participant in the study:

IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant: _____ Date: _____

Person Obtaining Consent: _____ Date: _____

APPENDIX B

MEDIA USAGE QUESTIONNAIRE

Instructions: Indicate how many times and how long you engage in the following media activities.

1. How many times on average have you logged into a social networking site for non-interactive purposes (without the intent of communication, e.g. browsing, playing games) in the past week?
____ times
2. How much time on average have you spent on a social networking site for non-interactive purposes (without the intent of communication, e.g. browsing, playing games) in the past week? Just include the average time for each instance. For example: I spend an average of 30 minutes browsing a social networking site each time I log in.
____ hours ____ minutes ____ seconds
3. How many times on average have you written on someone's wall or messaged a friend on a social networking site in the past week?
____ times
4. How much time on average have you spent writing a message on someone's wall or messaging a friend on a social networking site in the past week? Just include the average time for each instance. For example: I spend an average of 30 seconds writing a message on someone's wall.
____ hours ____ minutes ____ seconds
5. How many times on average have you updated your status on a social networking site this past week?
____ times
6. How much time on average have you spent updating your status on a social networking site this past week? Just include the average time for each instance. For example: I spend an average of 30 seconds updating my status.
____ hours ____ minutes ____ seconds
7. How many times on average have you sent or responded to an email this week?
____ times
8. How much time on average have you spent sending or responding to your email this week? Just include the average time for each instance. For example: I spend an average of 3 minutes sending or responding to an email.
____ minutes ____ seconds
9. How many times on average have you read your email without responding this week?
____ times

10. Please write 5 next to "times"
____times
11. How much time on average have you spent reading your email without responding this week? Just include the average time for each instance. For example: I spend an average of 3 minutes checking an email.
____hours ____minutes ____seconds
12. How many times on average have you sent or responded to an instant message online this week?
____times
13. How much time on average have you spent sending instant messages online this week? Just include the average time for each person. For example: I spend an average of 30 seconds instant messaging a friend online.
____hours ____minutes ____seconds
14. How many times on average have you entered a chat room online this week?
____times
15. How much time on average have you spent sending a message in a chat room online this week? Just include the average time for each instance. For example: I spend an average of 20 seconds sending a message in a chat room.
____hours ____minutes ____seconds
16. How many times on average have you played a non-interactive (i.e. not involving other players) computer or video game this week?
____times
17. How much time have you spent on average playing a non-interactive (i.e. not involving other players) computer or video game this week? Just include the average time for each instance. For example: I spend an average of 2 hours playing a non-interactive computer or video game.
____hours ____minutes ____seconds
18. How many times on average have you played a interactive (i.e. involving other players) computer or video game this week?
____times
19. How much time on average have you spent playing an interactive (i.e. involving other people) computer or video game this week? Just include the average time for each instance. For example: I spend an average of 2 hours playing an interactive computer or video game.
____hours ____minutes ____seconds
20. How many times on average have you gone on any other interactive online site (e.g., virtual world) this past week?
____times

21. How much time on average have you spent on any other interactive online site (e.g., virtual worlds) this past week? Just include the average time for each instance. For example: I spend an average of 2 hours in a virtual world each time I enter the site.
____hours ____minutes ____seconds
22. Circle the word "gator" in the sentence below:
I am a Florida gator.
23. How many times on average have you messaged someone on a dating site this week?
____times
24. How much time on average have you spent messaging someone on a dating site this week? Just include the average time for each instance. For example: I spend an average of 30 seconds sending a message to someone on a dating site.
____hours ____minutes ____seconds
25. How many times on average have you searched on a dating site without messaging someone this week?
____times
26. How much time on average have you spent searching on a dating site without messaging someone this week? Just include the average time for each instance. For example: I spend an average of 1 hour searching on a dating site each time I log in.
____hours ____minutes ____seconds
27. How many times on average have shopped online this week?
____times
28. How much time on average have you spent shopping online this week? Just include the average time for each instance. For example: I spend an average of 1 hour shopping on one online website.
____hours ____minutes ____seconds
29. How many times on average have you engaged in online banking this week?
____times
30. How much time have you spent online banking this week? Just include the average time for each instance. For example: I spend an average of 20 minutes on an online banking website.
____hours ____minutes ____seconds
31. How many times on average have you sold an item online this week?
____times
32. How much time on average have you spent selling items online this week? Just include the average time for each instance. For example: I spend an average of 20 minutes selling an item online.
____hours ____minutes ____seconds
33. How many times on average have you talked on the phone or video webcam this week?

____times

34. How much time on average have you spent talking on the phone or video webcam this week? Just include the average time for each instance. For example: I spend an average of 30 minutes talking to one person on the phone or video webcam.

____hours ____minutes ____seconds

35. How many times on average have you sent or responded to a text message this week?

____times

36. How much time on average have you spent sending or responding to a text message this week? Just include the average time for each instance. For example: I spend an average of 20 seconds sending or responding to a text message.

____hours ____minutes ____seconds

37. How many times on average have you gone on the Internet for non-interactive (without the intent of communication) purposes (e.g. surfing the web, research, school work, etc.,) this past week?

____times

38. How much time on average have you spent on the Internet for non-interactive (without the intent of communication) purposes (e.g. surfing the web, research, school work, etc.,) this past week? Just include the average time for each instance. For example: I spend an average of 2 hours on the Internet each time I open up my browser.

____hours ____minutes ____seconds

39. Mark an "x" next to seconds

____hours ____minutes ____seconds

40. How many times on average have you blogged this past week?

____times

41. How much time on average have you spent blogging this past week? Just include the average time for each instance. For example: I spend an average of 30 minutes blogging each time I update my website.

____hours ____minutes ____seconds

Instructions: Indicate how you feel about the following statements.

42. I communicate on the Internet when I am lonely

(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

43. I try to find people online when I feel isolated

(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

44. I feel safer communicating with others online rather than face-to-face

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

45. I am more confident interacting with people online than offline

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

46. I am more comfortable being on a computer than being with people

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

47. I've missed a social event because I was on the Internet

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

APPENDIX C STATE-TRAIT ANXIETY INVENTORY

STAI Form Y-2

Name _____ Date _____

DIRECTIONS

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you generally feel.

ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

- | | | | | |
|---|---|---|---|---|
| 21. I feel pleasant | 1 | 2 | 3 | 4 |
| 22. I feel nervous and restless | 1 | 2 | 3 | 4 |
| 23. I feel satisfied with myself | 1 | 2 | 3 | 4 |
| 24. I wish I could be as happy as others seem to be | 1 | 2 | 3 | 4 |
| 25. I feel like a failure | 1 | 2 | 3 | 4 |
| 26. I feel rested | 1 | 2 | 3 | 4 |
| 27. I am "calm, cool, and collected" | 1 | 2 | 3 | 4 |
| 28. I feel that difficulties are piling up so that I cannot overcome them | 1 | 2 | 3 | 4 |
| 29. I worry too much over something that really doesn't matter | 1 | 2 | 3 | 4 |
| 30. I am happy | 1 | 2 | 3 | 4 |
| 31. I have disturbing thoughts | 1 | 2 | 3 | 4 |
| 32. I lack self-confidence | 1 | 2 | 3 | 4 |
| 33. I feel secure | 1 | 2 | 3 | 4 |
| 34. I make decisions easily | 1 | 2 | 3 | 4 |
| 35. I feel inadequate | 1 | 2 | 3 | 4 |
| 36. I am content | 1 | 2 | 3 | 4 |
| 37. Some unimportant thought runs through my mind and bothers me | 1 | 2 | 3 | 4 |
| 38. I take disappointments so keenly that I can't put them out of my mind | 1 | 2 | 3 | 4 |
| 39. I am a steady person | 1 | 2 | 3 | 4 |
| 40. I get in a state of tension or turmoil as I think over my recent concerns and interests | 1 | 2 | 3 | 4 |

APPENDIX D
LIEBOWITZ SOCIAL ANXIETY SCALE

Liebowitz Social Anxiety Scale Liebowitz MR. Social Phobia. Mod Probl Pharmacopsychiatry 1987;22:141-17

Pt Name:	Pt ID #:		
Date:	Clinic #:	Assessment point:	
Fear or Anxiety: 0 = None 1 = Mild 2 = Moderate 3 = Severe		Avoidance: 0 = Never (0%) 1 = Occasionally (1—33%) 2 = Often (33—67%) 3 = Usually (67—100%)	
		Fear or Anxiety	Avoidance
1. Telephoning in public. (P)			1.
2. Participating in small groups. (P)			2.
3. Eating in public places. (P)			3.
4. Drinking with others in public places. (P)			4.
5. Talking to people in authority. (S)			5.
6. Acting, performing or giving a talk in front of an audience. (P)			6.
7. Going to a party. (S)			7.
8. Working while being observed. (P)			8.
9. Writing while being observed. (P)			9.
10. Calling someone you don't know very well. (S)			10.
11. Talking with people you don't know very well. (S)			11.
12. Meeting strangers. (S)			12.
13. Urinating in a public bathroom. (P)			13.
14. Entering a room when others are already seated. (P)			14.
15. Being the center of attention. (S)			15.
16. Speaking up at a meeting. (P)			16.
17. Taking a test. (P)			17.
18. Expressing a disagreement or disapproval to people you don't know very well. (S)			18.
19. Looking at people you don't know very well in the eyes. (S)			19.
20. Giving a report to a group. (P)			20.
21. Trying to pick up someone. (P)			21.
22. Returning goods to a store. (S)			22.
23. Giving a party. (S)			23.
24. Resisting a high pressure salesperson. (S)			24.

APPENDIX E
UCLA LONELINESS SCALE (VERSION 3)

THE REVISED UCLA LONELINESS SCALE

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Table 1
The Revised UCLA Loneliness Scale

Directions: Indicate how often you feel the way described in each of the following statements. Circle one number for each.

Statement	Never	Rarely	Sometimes	Often
1. I feel in tune with the people around me ^a	1	2	3	4
2. I lack companionship	1	2	3	4
3. There is no one I can turn to	1	2	3	4
4. I do not feel alone ^a	1	2	3	4
5. I feel part of a group of friends ^a	1	2	3	4
6. I have a lot in common with the people around me ^a	1	2	3	4
7. I am no longer close to anyone	1	2	3	4
8. My interests and ideas are not shared by those around me	1	2	3	4
9. I am an outgoing person ^a	1	2	3	4
10. There are people I feel close to ^a	1	2	3	4
11. I feel left out	1	2	3	4
12. My social relationships are superficial	1	2	3	4
13. No one really knows me well	1	2	3	4
14. I feel isolated from others	1	2	3	4
15. I can find companionship when I want it ^a	1	2	3	4
16. There are people who really understand me ^a	1	2	3	4
17. I am unhappy being so withdrawn	1	2	3	4
18. People are around me but not with me	1	2	3	4
19. There are people I can talk to ^a	1	2	3	4
20. There are people I can turn to ^a	1	2	3	4

APPENDIX F

BECK DEPRESSION INVENTORY (REVISED EDITION)



Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

<p>1. Sadness</p> <p>0 I do not feel sad. 1 I feel sad much of the time. 2 I am sad all the time. 3 I am so sad or unhappy that I can't stand it.</p>	<p>6. Punishment Feelings</p> <p>0 I don't feel I am being punished. 1 I feel I may be punished. 2 I expect to be punished. 3 I feel I am being punished.</p>
<p>2. Pessimism</p> <p>0 I am not discouraged about my future. 1 I feel more discouraged about my future than I used to be. 2 I do not expect things to work out for me. 3 I feel my future is hopeless and will only get worse.</p>	<p>7. Self-Dislike</p> <p>0 I feel the same about myself as ever. 1 I have lost confidence in myself. 2 I am disappointed in myself. 3 I dislike myself.</p>
<p>3. Past Failure</p> <p>0 I do not feel like a failure. 1 I have failed more than I should have. 2 As I look back, I see a lot of failures. 3 I feel I am a total failure as a person.</p>	<p>8. Self-Criticalness</p> <p>0 I don't criticize or blame myself more than usual. 1 I am more critical of myself than I used to be. 2 I criticize myself for all of my faults. 3 I blame myself for everything bad that happens.</p>
<p>4. Loss of Pleasure</p> <p>0 I get as much pleasure as I ever did from the things I enjoy. 1 I don't enjoy things as much as I used to. 2 I get very little pleasure from the things I used to enjoy. 3 I can't get any pleasure from the things I used to enjoy.</p>	<p>9. Suicidal Thoughts or Wishes</p> <p>0 I don't have any thoughts of killing myself. 1 I have thoughts of killing myself, but I would not carry them out. 2 I would like to kill myself. 3 I would kill myself if I had the chance.</p>
<p>5. Guilty Feelings</p> <p>0 I don't feel particularly guilty. 1 I feel guilty over many things I have done or should have done. 2 I feel quite guilty most of the time. 3 I feel guilty all of the time.</p>	<p>10. Crying</p> <p>0 I don't cry any more than I used to. 1 I cry more than I used to. 2 I cry over every little thing. 3 I feel like crying, but I can't.</p>

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PEARSON

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PsychCorp

<p>11. Agitation</p> <p>0 I am no more restless or wound up than usual. 1 I feel more restless or wound up than usual. 2 I am so restless or agitated that it's hard to stay still. 3 I am so restless or agitated that I have to keep moving or doing something.</p>	<p>17. Irritability</p> <p>0 I am no more irritable than usual. 1 I am more irritable than usual. 2 I am much more irritable than usual. 3 I am irritable all the time.</p>
<p>12. Loss of Interest</p> <p>0 I have not lost interest in other people or activities. 1 I am less interested in other people or things than before. 2 I have lost most of my interest in other people or things. 3 It's hard to get interested in anything.</p>	<p>18. Changes in Appetite</p> <p>0 I have not experienced any change in my appetite. 1a My appetite is somewhat less than usual. 1b My appetite is somewhat greater than usual. 2a My appetite is much less than before. 2b My appetite is much greater than usual. 3a I have no appetite at all. 3b I crave food all the time.</p>
<p>13. Indecisiveness</p> <p>0 I make decisions about as well as ever. 1 I find it more difficult to make decisions than usual. 2 I have much greater difficulty in making decisions than I used to. 3 I have trouble making any decisions.</p>	<p>19. Concentration Difficulty</p> <p>0 I can concentrate as well as ever. 1 I can't concentrate as well as usual. 2 It's hard to keep my mind on anything for very long. 3 I find I can't concentrate on anything.</p>
<p>14. Worthlessness</p> <p>0 I do not feel I am worthless. 1 I don't consider myself as worthwhile and useful as I used to. 2 I feel more worthless as compared to other people. 3 I feel utterly worthless.</p>	<p>20. Tiredness or Fatigue</p> <p>0 I am no more tired or fatigued than usual. 1 I get more tired or fatigued more easily than usual. 2 I am too tired or fatigued to do a lot of the things I used to do. 3 I am too tired or fatigued to do most of the things I used to do.</p>
<p>15. Loss of Energy</p> <p>0 I have as much energy as ever. 1 I have less energy than I used to have. 2 I don't have enough energy to do very much. 3 I don't have enough energy to do anything.</p>	<p>21. Loss of Interest in Sex</p> <p>0 I have not noticed any recent change in my interest in sex. 1 I am less interested in sex than I used to be. 2 I am much less interested in sex now. 3 I have lost interest in sex completely.</p>
<p>16. Changes in Sleeping Pattern</p> <p>0 I have not experienced any change in my sleeping pattern. 1a I sleep somewhat more than usual. 1b I sleep somewhat less than usual. 2a I sleep a lot more than usual. 2b I sleep a lot less than usual. 3a I sleep most of the day. 3b I wake up 1–2 hours early and can't get back to sleep.</p>	

APPENDIX G

GENERAL PROBLEMATIC INTERNET USAGE SCALE

Instructions: Indicate how you feel about the following statements.

1. I use the Internet to talk with others when I feel isolated
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
2. I seek others online when I feel isolated
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
3. I use the Internet to make myself feel better when I'm down
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
4. I go online to make myself feel better when I'm down
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
5. I am treated better online than in face to face relationships
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
6. I feel safer relating to others online rather than face-to-face
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
7. I am more confident socializing online than offline
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
8. I am more comfortable with computers than people
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
9. I am treated better online than offline
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
10. I have gotten in trouble at work/school because I was online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
11. I missed class or work because I was online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

12. I feel worthless offline but I am someone online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
13. I've missed a social event because of being online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
14. I have had unsuccessful attempts to control my Internet use
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
15. I am unable to reduce my time online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
16. I feel guilt about time online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
17. I tried to stop using the Internet for long periods of time.
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
18. I lose track of time online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
19. I spent a good deal of time online
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
20. I go online for longer time than I intended
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
21. Place a check above Disagree
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
22. I am preoccupied with the Internet if I can't connect for some time
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
23. I miss being online if I can't go on it
 (1)____ (2)____ (3)____ (4)____ (5)____
 Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
24. When not online, I wonder what is happening online

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

25. I feel lost if I can't go online

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

26. It's hard to stop thinking about what is waiting for me online

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

27. I don't worry about how I look when socializing online

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

28. I don't worry about relationship commitment when socializing online

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

29. I have control over how others perceive me online

(1)____ (2)____ (3)____ (4)____ (5)____
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

APPENDIX H DEMOGRAPHIC QUESTIONNAIRE

Gender: M F Other

Age: _____

Year in School: _____

Self Description (please choose any or all that apply):

- American Indian
- Asian-American/Oriental/Pacific Islander
- Asian East Indian
- Black/African-American
- Mexican-America/Chicano
- Puerto-Rican
- Other Hispanic
- White/Caucasian
- Other

What is your parent's current household income in U.S. dollars?

- Less than \$10,000
- \$10,000 to \$19,999
- \$20,000 to \$29,999
- \$30,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$69,999
- \$70,000 to \$79,999
- \$80,000 to \$89,999
- \$90,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

Height: _____ ft _____ inches

Weight _____ lbs.

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BIOGRAPHICAL SKETCH

Alana Freedland was born in Oak Park, Michigan. Alana grew up mostly in Tampa, Florida and graduated from Tampa Preparatory School in 2005. She earned her B.S. in psychology and a minor in dance at the University of Florida in 2009 and began graduate school in the Counselor Education program at the University of Florida as a master/specialist candidate in 2010.

Alana works as a research assistant in the departments of Psychiatry and Clinical and Health Psychology at the University of Florida. She has presented at national and international conferences including the 39th and 40th Annual Meetings of the International Neuropsychology Society, the 22nd Annual International Conference for ADHD, the Georgia State University Multicultural Competence Conference, and the 2010 Annual Meeting of the Florida Society of Neurology. Alana has been published as an author in Type 1 Diabetes/Book 3 and the Journal of Dementia and Geriatric Cognitive Disorders.

Alana will complete her degree in Mental Health Counseling at the University of Florida in Summer 2012. She looks forward to her future career as a counselor.