College Dating and Social Anxiety: Using the Internet as a Means of Connecting to Others

SARAH B. STEVENS, M.S. and TRACY L. MORRIS, Ph.D.

ABSTRACT

With the advent and widespread use of the Internet, various online media are being used to connect and maintain social relationships in individuals of all ages. Social relationships are vital to healthy development, and individuals with social and/or dating anxiety may have marked difficulty in establishing appropriate, supportive relationships because of fear of negative evaluation by others. For these individuals, the Internet may open avenues of communication and provide an outlet through which relationships can be formed and preserved. This study investigated the characteristics of computer and Internet use in young adults to determine whether individuals who were high in social/dating anxiety symptoms were more likely to make and maintain social relationships online. To further understand the patterns of these behaviors, several measures of social and dating anxiety were collected and analyzed along with demographic, computer use, and relationship characteristics. Results indicated differences between high and low social/dating anxiety with respect to media use and relationship formation. Limitations and future directions are discussed.
Internet allows them to connect better with family and friends, and 50.9% stated that the Internet had increased the number of people with whom they stayed in contact.

**Use of the Internet in a socially anxious college population**

College is a time of dramatic change in the lives of young adults. Many teens must begin a new life away from home, with increased responsibility for themselves and their schoolwork. Changes in social situations are commonplace as well: whereas in high school there was an intact social circle of friends, in college, many students may have to make new friends in a new area or may find that friends so close in high school become strangers in college. For those with no difficulty in social situations, this time is one of excitement and wonder. The chance to meet others, either in platonic or romantic relationships, or to reinvent a persona in college, is an exciting and wonderful idea. But for individuals with social or dating anxiety, the process can become terrifying. These individuals may become further isolated, having to move to a new place without the safety of established social circles.

Social anxiety is defined as fear of negative evaluations by others in social situations, while dating anxiety is defined as apprehension and discomfort in interactions with a potential romantic partner. Both of these conditions are marked by fear and anxiety of such situations and often result in avoidance of social and/or dating scenarios, making it difficult to connect in reinforcing social engagements. Socially anxious individuals often are characterized by low numbers of close friends and acquaintances. Despite the desires to meet and engage in platonic or romantic relationships, socially anxious individuals often are unable to make the necessary effort for fear of negative evaluation by others.

The lack of romantic and platonic attachments also may be a significant factor in the development of other social and mental health problems. Individuals with severe social and/or dating anxiety may be more likely to experience distress in other areas as a result of insufficient interpersonal relationships. Davila and Beck examined the association between social anxiety and other areas of impairment and found that social anxiety symptoms significantly correlated with symptoms of depression as well as with overreliance on others and increased interpersonal stress. They also found that individuals with higher social anxiety symptoms were more likely to avoid expressing strong emotions and to report a desire to avoid conflict. These
associations were found even after controlling for depression. Additionally, individuals with social or dating anxiety may be more likely to report loneliness in their daily lives, and there has been substantial linkage between the two constructs.16–20

With the advent of the Internet and its numerous communication services, many people are using the Web as a potential avenue to find romantic and platonic partners. Donn and Sherman22 found that 7.7% of college students and 19.7% of graduate students had taken steps to meet a potential romantic partner online. Knox et al.23 found that 40% of their college sample had used the Internet to gain and establish new friendships, while 7% reported becoming romantically involved with a person they met online. This study also showed that the major function behind Internet use was anxiety reduction, with respondents stating that they felt less shy online than in person. Such studies suggest that persons with social or dating anxiety have a potential avenue by which to explore the relationships they desire in a less threatening manner than the traditional face-to-face interactions that others may use. Some research already has suggested that individuals with social anxiety may be more inclined to seek out personal relationships over the Internet. Ward and Tracey24 found that individuals high in shyness were more likely to become involved in online relationships. In her unpublished dissertation research, McKenna25 found that socially anxious people were more likely to use the Internet to form relationships and that these relationships typically developed more quickly than their face-to-face counterparts. In a survey of over 600 Internet newsgroups and two laboratory studies conducted at Ohio University, the author found that because of so-called “gating features” inherent in the face-to-face meeting process, many individuals with performance or evaluation anxiety were more likely to use the Internet as a means to connect to others. Gating features include physical appearance variables, such as height and weight, as well as other aspects of personality, speech, and self-presentation that may hinder the initial positive evaluation by a potential partner or friend. These gating features may be of particular concern for individuals with social anxiety because they may perceive the physiological characteristics associated with their distress, such as shaking, sweating, and blushing, as off-putting or negatively evaluated by others. Individuals who use the Internet to obtain or maintain relationships may feel more at ease conducting the initial phases of a relationship online, where the gating features are not as salient. Depending on the level of anxiety associated with their personal aspects, they may be more or less accurate in their description. For example, a person who is highly anxious or critical of his or her height or weight may choose to be inaccurate in a personal description as a way of advancing an online relationship. In a later study expanding upon her findings, McKenna and her colleagues found that the more people portrayed their “true self” online, the more likely they were to meet their partner face to face.26

There is evidence that there may be a large number of individuals online with social anxiety. Erwin et al.27 found that individuals who responded online to a survey of social phobia symptomatology had greater levels of severity and impairment than a treatment-seeking sample, suggesting that some were so severe they were unable or unwilling to seek treatment for their problems or that answering questions online increases symptom reporting. This information, coupled with the variety of media available for communication, begs the question, what type of media are socially anxious individuals most likely to utilize in beginning online relationships?

**RATIONALE FOR THE PRESENT STUDY**

Social support and interaction is a crucial part of everyday life, even more so in the critical college years.28,29,30 The present study sought to examine current college dating practices and the use of Internet communication media by individuals with and without social anxiety.

The following hypotheses were tested:

**H1:** Individuals low on anxiety are more likely to meet others and engage in dating practices than are individuals high in social and/or dating anxiety.

**H2:** Individuals high in social and/or dating anxiety are more likely to use the Internet to make and maintain romantic and platonic relationships than are typical college students.

**H3:** Severity of anxiety symptoms is related to type or mode of involvement, with those most severe more likely to engage in media in which less personal identification is used.

**H4:** Severity of anxiety symptoms is related to whether or not a face-to-face meeting has occurred, with those most severe being less likely to have a real-life meeting.
METHOD

Participants

Participants were recruited from undergraduate psychology classes at West Virginia University. Seven hundred eight participants were recruited; however, 40 participants were excluded because they were under the age of consent or over age 25. The final sample consisted of 666 (472 females and 194 males) participants.

Procedure

Information about the study and its benefits was presented to various psychology classes, and participants were allowed to log in to a Web site to participate in the study. After receiving a log-in username and password for a Web-based data collection system (SONA), participants were asked to fill out anonymous demographic, computer use, and relationship surveys as well as several questionnaires regarding social and dating anxiety levels. Measures were presented in order from least to most intrusive or sensitive in nature. Completion of all measures took approximately 1 hour, and participants received extra credit for their participation in the study.

Measures

Demographic questionnaire. A demographics questionnaire was created for use in this study to gather information on age, sex, race/ethnicity, sexual orientation, and year in college.

Computer/Internet Use Questionnaire. The Computer/Internet Use Questionnaire was developed for this study to gain information about computer use and about Internet media use in particular. Information was gathered concerning computer ownership; Internet access; amount of time spent on the Internet; level of use of Internet services such as e-mail, IM, chat rooms, blogs, webcams, and online dating services; level of comfort with the previously listed media; number of relationships made online; type of relationships made online; face to face meetings that may have taken place with those met online; and so on.

Friendship and Dating Practices Questionnaire. The Friendship and Dating Practices Questionnaire was developed for this study to obtain information about participant relationships. The questionnaire gathered information concerning participant’s dating history; whether he or she had a significant other; length of relationship with significant other; how the participant met his or her significant other; opinion on the definition of a date; style of date most used; first-date practices; presence of a best or closest friend; how the participant met his or her best or closest friend, and so on.

Social Phobia and Anxiety Inventory (SPAI). The SPAI assesses level of anxiety with respect to social situations. Participants are asked to rate each statement on a scale from 0 (never) to 7 (always). Example statements include, “I feel anxious when approaching and/or initiating a conversation with strangers/authority figures/opposite sex/people in general,” “I feel so anxious about attending social gatherings that I avoid these situations,” and “I am not likely to speak to people unless they speak to me.” The measure has demonstrated excellent test-retest reliability (0.86), with an alpha of 0.96 for the social phobia subscale. Several studies have shown high discriminant and external validity as well as high concurrent validity with the Social Anxiety Scale ($r = 0.87$) and the Fear Questionnaire ($r = 0.92$).

Dating Anxiety Survey (DAS). Developed by Calvert, Moore, and Jensen, the DAS assesses anxiety related to dating and romantic situations. The questionnaire has both male and female versions, although for the purposes of this study, it was modified in order to be applicable to gay, lesbian, and bisexual individuals. The survey is divided into three subscales: passive contact, dating interactions, and active interventions for dating. Previous studies have shown alphas that ranged from 0.87 to 0.93 for each subscale across male and female versions. The measure has demonstrated concurrent validity with other measures of dating and social anxiety.

Dating and Assertion Questionnaire (DAQ). The DAQ assesses social competence in dating interactions and situations as well as situations for which assertive behavior is needed. The DAQ is divided into two subscales: a 9-item dating subscale and a 9-item assertion subscale. For this study, only the dating subscale was used. The dating subscale provides examples of social situations and asks respondents to rate their competence, discomfort, and likelihood of behavior occurring on a scale from 1 (I never do this) to 4 (I do this almost always). Excellent internal consistency ($\alpha = 0.92$ for the dating subscale) and test-retest reliability over a 4-week period ($r = 0.71$ for week 2 and $r = 0.62$ for week 6) were noted by Levenson and Gottman.
RESULTS

Sample characteristics

The sample consisted of 472 female (71%) and 194 male (29%) respondents between 18 and 24 years of age, with a mean age of 19 years. Participants were predominantly European-American (93.5%; 2.6% African American; 1.5% Hispanic/Latino) and heterosexual (97%).

SPAI. The overall mean of the SPAI for the total sample was 50.43, with a standard deviation of 24.06. For certain analyses, SPAI scores were classified into high and low groups. Individuals who were rated high were those whose total SPAI scores placed them in the Probable Social Phobia (difference scores greater than or equal to 80) or Possible Social Phobia (difference scores between 60 and 79) ranges, while those rated low were individuals whose scores categorized them as Social Phobia Unlikely (difference scores less than 34). The mean of the high SPAI group (N = 212) was 77.41 with a standard deviation of 14.76. The mean of the low group (N = 160) was 20.06 with a standard deviation of 10.28.

DAS. The overall mean of the DAS for the total sample was 102.40 with a standard deviation of 24.14. For certain the analyses, DAS scores were classified into high and low groups. Using the 25th and 75th percentiles on the DAS, respondents were classified as high and low dating anxiety. The mean of the high DAS group (N = 167) was 128.39 with a standard deviation of 8.34, while the mean of the low dating anxiety group (N = 179) was 69.34 with a standard deviation of 16.64.

DAQ. The mean of the DAQ for the total sample was 26.87 with a standard deviation of 4.32. For certain analyses, DAQ scores were classified into high and low groups. Using the 25th and 75th percentiles on the DAQ, respondents were classified as high and low dating anxiety. The mean of the high dating anxiety group (N = 181) was 21.59 with a standard deviation of 2.78, while the mean of the low dating anxiety group (N = 174) was 32.25 with a standard deviation of 2.19. Reverse scoring was used on the DAQ; thus a lower score indicated higher levels of dating anxiety.

Computer use

Approximately 98% of the sample stated that they owned a computer and had access to e-mail and the Internet (additional media use data are presented in Table 1). Fifty-one percent of respondents reported they spent 1 to 3 hours online daily; 11% spent less than 1 hour online; 25% spent 3 to 5 hours online; 9% spent 5 to 7 hours online; and 4% spent more than 7 hours online. For individuals in the high social anxiety group, 50% reported they spent 1 to 3 hours online daily; 14% spent less than 1 hour online; 22% spent 3 to 5 hours online; 9% spent 5 to 7 hours online; and 6% spent more than 7 hours. By contrast, 51% of the low anxiety group reported spending 1 to 3 hours online per day, while 11% reported spending less than 1 hour, 26% reported spending 3 to 5 hours, 8% reported spending 5 to 7 hours and 5% spending more than 7 hours per day online. A chi-square test was conducted to determine if there were differences between high and low social anxiety groups with regards to time spent online. The test was not significant, $\chi^2(4) = 1.08$, $p > 0.05$. Therefore, no differences were found between high and low social anxiety groups and time spent online.

With regard to the development of online relationships, 28.5% of respondents (28.8% of women and 27.8% of men) stated that they had made at least one online relationship. Of those who indicated an online relationship, approximately 31% stated that they made one, 18% reported making two, 16% reported making three, 30% reported making four or more, with 5% missing. The most common nature of the online relationship was Friend (47%), with Acquaintance (37%), Romantic Partner (10%) and Close/Best Friend (5%) also represented. Approxi-

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mately 70% of those who made an online relationship indicated that a face-to-face meeting took place. The most common media used to maintain online relationships were IM (86%), and email (6%). Sixty-four percent of respondents indicated that they spoke on the telephone to the person with whom they had the online relationship.

**Relationship data**

Approximately 99% of the sample indicated that they had been on a date at some point in their lives, while 89.8% stated that they had been on a date in the last 6 months. Sixty-seven percent of women and 53% of men stated that they currently had a significant other. Twenty-five percent of respondents reported being in a relationship with their significant other for one to three years, while an additional 29% reported being in a relationship for more than 5 years. Only 2% of respondents stated that they had been in a relationship for more than 5 years.

**Chi-square analyses**

Chi-square tests were conducted to examine whether social and dating anxiety groups (high versus low) differed on demographic, relationship, and media use variables. Though demographic and relationship variables did not differ with regard to SPAI group, a significant difference was found between SPAI group and the use of blogs in online communication, \( \chi^2(1) = 6.083, p < 0.05 \). Individuals in the low SPAI group were more likely to report blog use.

In examining the group differences using the DAQ as a measure of dating anxiety, significant group differences were found between DAQ groups and the demographic variables of race and gender, \( \chi^2(4) = 18.714, p < 0.001 \). Minority individuals and female respondents were more likely to report dating anxiety symptoms. Though relationship variables did not differ with regard to DAQ group, a significant difference was found between DAQ group and webcam use, \( \chi^2(8) = 15.791, p < 0.05 \). Individuals in the high DAQ group were more likely to report webcam use.

In examining the group differences using the DAS as a measure of dating anxiety, significant group differences were found between DAS groups and gender, \( \chi^2(4) = 13.495, p < 0.01 \). Female respondents were more likely to report dating anxiety symptoms. Relationship and media use variables did not differ with regard to DAS group.

**Predicting social anxiety**

To examine predictors of social anxiety, binary logistic regression was conducted. Previous chi-square analyses revealed that demographic and relationship variables were not significant predictors of scores on the SPAI. Media use variables (email, chat rooms, IM, blogs, webcams, online dating services, telephone, and snail mail) were entered as predictors of social anxiety status. Fifty-seven percent were classified correctly. The overall model was significant, \( \chi^2(8) = 20.043, p < 0.01 \). Unique predictors were blog (\( \beta = -2.391 \), Wald = 4.631, OR = 0.092, 95% CI = 0.010–0.808, \( p < 0.05 \)) and webcam use (\( \beta = 2.181 \), Wald = 4.065, OR = 8.852, 95% CI = 1.063–73.740, \( p < 0.05 \)). Thus, individuals who were low in social anxiety symptoms were almost 9 times more likely to use blogs, while individuals who were high in social anxiety were more likely to use webcams.

**Predicting dating anxiety**

To examine the predictors of dating anxiety, binary logistic regression was conducted. Media use variables were entered as predictors of dating anxiety on the DAQ. Fifty-one percent were correctly classified, with 181 participants in the high group and 174 participants in the low group. The overall model was significant, \( \chi^2(8) = 15.791, p < 0.05 \). Webcam use was a unique predictor (\( \beta = 2.595 \), Wald = 4.841, OR = 13.400, 95% CI = 1.328–135.230, \( p < 0.05 \)); individuals who were high in dating anxiety on the DAQ were 13 times more likely to use webcams to maintain online relationships.

Using the 25th and 75th percentiles on the Dating Anxiety Survey, respondents were classified as “high” and “low” dating anxiety. Media use variables were then entered as predictors of dating anxiety on the DAS. Approximately 54% were correctly classified, with 179 participants in the high dating anxiety group and 167 in the low group. The overall model was not significant, \( \chi^2(8) = 4.998, p > 0.10 \).

**Predicting Internet use**

To examine predictors of Internet use, binary logistic regression was conducted. Scores on the SPAI, DAS, and DAQ were entered as predictors of whether the participant had used email, chat rooms, IM, blogs, webcams, or online dating services to maintain the online relationship. None of the overall models were significant.

**Predicting relationship status**

To examine predictors of relationship status, binary logistic regression was conducted. Scores on the SPAI, DAS, and DAQ were entered as predic-
tors of whether the participant had ever been on a date. The overall model was significant $\chi^2 (3) = 14.663, p < 0.01$. Approximately 99% were correctly classified. Results indicated that individuals who were low on the DAQ (indicating higher levels of dating anxiety) were less likely to report ever having gone on a date, $\beta = -0.362$, Wald = 11.481, OR = 0.693, 95% CI = 0.561–0.857, $p < 0.001$. Additionally, the SPAI, DAS and DAQ were entered as predictors of whether the participant had been on a date in the last 6 months. The overall model was significant, $\chi^2 (3) = 48.71, p < 0.001$. Approximately 90% were correctly classified. Results indicated that individuals who were low on the DAQ were less likely to report going on a date in the last 6 months, $\beta = -0.204$, Wald = 30.484, OR = 0.815, 95% CI = 0.758–0.877, $p < .001$. Finally, the SPAI, DAS, and DAQ were entered as predictors of whether a face to face meeting had taken place with the online relationship partner. The overall model was not significant, $\chi^2 (3) = 3.161, p > 0.10$.

**DISCUSSION**

This investigation into the use of the Internet by college students partially replicated and extended previous research. Results were similar to those of Donn and Sherman, Knox et al., and Ward and Tracey, with college students reporting using the Internet as a means to establish and maintain romantic and platonic relationships. This was one of the first studies to examine the association between social and dating anxiety and Internet use, as well as to examine specific media that may be likely to be utilized in the development and retention of online relationships.

**Social anxiety**

The majority of findings with respect to social anxiety severity were inconsistent with the hypotheses that individuals higher in social anxiety symptoms would report more use of the Internet and certain media to make and maintain relationships. Although individuals low in social anxiety reported using blogs significantly more than individuals who were high in social anxiety, use of webcams in relationship maintenance was almost 9 times more likely for those high in social anxiety. This may be due to an association between social anxiety and increased computer ability and interest, or as a result of the Internet acting as an intermediary between two individuals. Although communicating partners can see each other, there is a buffer of cyber-space between them and certain physiological characteristics (such as trembling or blushing) may not be as easily noted. Given that the majority of the sample reported using both email and IM daily, it is not surprising that there were no differences with respect to social anxiety. Social anxiety symptoms were not found to be predictive of media use or relationship variables.

**Dating anxiety**

Women and minorities were more likely to endorse symptoms of dating anxiety. Perhaps women may feel more pressure to be involved in a relationship than men. Sociobiological theory states that, since women can only have a limited number of offspring at one time, it is vital to couple with a partner who can provide stability and security for any offspring. Men, however, can have multiple partners and offspring, and are more likely to remain uncoupled longer. One possible explanation for higher dating anxiety among minority participants may be related to the relatively limited ethnic diversity of the college campus from which they were drawn. Future research is needed to clarify these results.

The majority of findings regarding dating anxiety were inconsistent with the hypotheses. Individuals high in dating anxiety symptoms, as assessed by the Dating and Assertion Questionnaire, were 13 times more likely to endorse using webcams to maintain relationships. This, again, may be due to the Internet acting as a buffer.

**SUMMARY**

The results of the current study extended, but were inconsistent with, previous literature. Individuals who reported high levels of social and dating anxiety were not more likely to use the Internet to make online relationships than those who reported lower levels of social or dating anxiety. However, the investigation extended the literature by demonstrating that certain online media were more likely to be used by individuals reporting social and dating anxiety symptoms, particularly the use of web cameras. This was one of the first investigations to examine the association between particular online media and scores on established measures of social and dating anxiety.

**Limitations and future directions**

Limitations of this study should be noted. First, a university sample was used, which may have in-
fluenced not only the level of Internet use but also the level of technological ability. Future research may benefit from using a larger community sample, comprised of a larger array of ages, backgrounds, and ability levels. Second, the sample primarily consisted of European-American individuals. Although representative of the racial make-up of both West Virginia University and the state of West Virginia, future research may benefit from inclusion of individuals from other ethnicities and racial backgrounds. It is important to note, however, that the sample did include a range of individuals with significant symptoms of social anxiety.

Implications

This investigation has several implications for intervention and identification of social and dating anxiety, as well as for dating relationships in general. The internet can be a vital tool for individuals living in areas where their particular racial/ethnic group, religion, or sexual orientation is not well represented. For individuals in remote or culturally homogenous areas, the Internet and online media can provide a link to similar others. Results suggest that individuals with social and/or dating anxiety are more likely to use certain online media (i.e., web cameras) to make and maintain relationships. Given this finding, clinicians may want to consider using the Internet and certain online media as therapeutic tools for clients in need of exposure to social or relational situations. Clients presenting with social and/or dating anxiety can be assessed as to their level of computer and media knowledge, experience, and use, and then given access to controlled webcams or chat rooms in which they can practice skills and interpersonal tasks. By using online media as a low to mid-level step in an exposure hierarchy, clinicians may have another potential environment for clients to practice the skills they learn in therapy sessions. Furthermore, the Internet may be an ideal forum for discussions about social/dating anxiety symptoms and treatment, or even a potential outlet for group therapy. Individuals in group therapy may find it helpful to have online forums on which they can discuss coping skills, practice methods, and provide support to others. Though the ultimate goal remains having successful and appropriate live social interactions, clients who are starting from an extremely low baseline may be served well by increasing any social interaction, live or in cyberspace.

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Address reprint requests to:
Dr. Tracy L. Morris
Department of Psychology
West Virginia University
1124 Life Sciences Building
Morgantown, WV 26506-6040

E-mail: Tracy.Morris@mail.wvu.edu