

**RISK FACTORS IDENTIFIED IN COLLEGE STUDENTS
EXHIBITING SOCIAL PHOBIA**

by

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ABSTRACT

College life is a unique experience in the life of many young adults that presents many challenges for which they might not be prepared, including living away from home and adapting to a new social and academic environment. In particular, these experiences may be particularly adverse for students with social phobia and may be predictors of academic and social problems, and may even predict dropout. The purpose of the present research is to identify possible connections between socially phobic tendencies and the social, emotional, and overall well-being of college students. Social phobia itself is an unnecessary and overwhelming fear of being scrutinized by others (National Institute of Mental Health 2009). By implementing the use of four psychological tests: the Social Phobia and Anxiety Inventory, Positive and Negative Affect Schedule, College Affiliation Questionnaire, and Life Orientation Test, this research sought to investigate the correlations existing between college students' self-reports on these measures through the use of the UCF Sona system. Students' personal characteristics and demographics were also examined correlationally along with their self-reports on all four measures. A total of 165 participants were used in this study. After gathering descriptive statistics from each test and their demographics, correlations were run between the four tests and then between demographic information and tests. The results showed social phobia having a positive correlation with negative affect and a negative relationship with positive affect. In turn, negative emotion was correlated with a lowered overall life orientation and a more pessimistic mindset. No strong correlations were identified between psychological tests and student characteristics as was previously thought. Overall, there are definite indicators that social anxiety has a negative impact on one's quality of life and emotions, however, more research needs to be done with more

diverse sampling and different methodology to see if there is a link between particular student characteristics and prevalence rates of social anxiety within those characteristic subsets.

DEDICATION

To my family,
who have supported me, pushed me to go further than I ever imagined,
and never let me give up

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INTRODUCTION

College students face many stressful and anxiety-provoking situations in not only their academic lives, but also in the realm of their careers and personal lives. In some individuals, anxiety issues may impact certain areas of day-to-day life, creating uncomfortable social situations, which can in turn influence the choices concerning their college experience. At such a crucial time in the lives of young adults, these choices can affect career decisions, interaction with peers and teachers, and most importantly the individual's wellbeing.

According to the National Institute of Mental Health (2009), social phobia or anxiety disorder "is diagnosed when people become overwhelmingly anxious and excessively self-conscious in everyday social situations" (p. 9). Scrutiny in social settings is the biggest fear of those suffering from social phobia. The negative effects of social anxiety have been well documented in both past and present research. A clear negative relationship exists between one's level of anxiety and their quality of life (Norouzi, 2012). Not only is quality of life diminished, but research by Bakhtiari, Ghaedi, Melyani, Sahragard, and Tavoli (2009) specifies this further when describing those with social phobia as being more prone to financial dependence and thoughts of suicide as well as a disconnected social support system and possibly lower education. With such potential problems, it is alarming to note that social anxiety disorder is under-diagnosed even though it is quite common, especially for Western countries, and has roughly a 2% to 13% lifetime rate of prevalence for any age group of the population (Alden et al., 2011). Additionally, a Canadian survey documented 1-year prevalence rates of those aged 15-24, which

showed females at 20% prevalence while men accounted for 11% (Farvolden, Mancini, & Van Ameringen, 2003).

An article by Strahan (2003) expands on those problems specific to college students, indicating that socially anxious college students consider the difficulty in interacting with faculty to be a component in decisions to dropout. However, building relationships with mentors and receiving guidance has been noted to increase students' confidence and overall satisfaction with their college life (Strahan, 2003). It has also been found that problems with social anxiety have the potential to trigger or exacerbate alcohol and substance abuse issues and may be comorbid with other conditions like depression (Roberson-Nay, Schry, White, 2012).

Due to the high prevalence of social anxiety disorders compounded with its under-recognition in the college-aged community and potential to negatively impact many areas of life, college students present a uniquely affected population group. It is also more difficult to pinpoint this disorder in college-aged persons due to the fact that it is much more likely to go unnoticed until very high levels of anxiety are elicited (Roberson-Nay et al., 2012). Until recently, the research on social anxiety and phobia in college students has focused on sample populations from non-Western countries such as China and typically only hones in on the fact that quality of life is impacted overall or that social anxiety is influencing a certain area of life such as ones' academics. However, this is not really representative of American college students at such a large and diverse campus like the University of Central Florida (2014) where nearly half the student population is made up of minority groups. This also does not give much insight into certain areas of student life such as classroom interactions or peer relations that may be directly influenced by socially phobic tendencies like withdrawal from class or extreme discomfort

during group assignments. Lastly, current research does not indicate how such high rates of social anxiety on college campuses proliferate and what types of situations or variables trigger it in certain subsets of the campus population.

The current study is an attempt to fill these gaps by examining American college students, in this case UCF. Specifically, on a very large and diverse American college campus, are the patterns of influence of social phobia on adjustment to college life the same as those reported in other countries? I wish to examine a variety of domains of college life including social, academic, and personal, to see how each is impacted by social anxiety.

Lastly, I wish to see if there are higher rates for responses concerning cognitive aspects of social phobia, i.e. a pessimistic or negative mindset as displayed through the Life Orientation Test, because I propose that a negative cognitive disposition will be the highest indicator of any instances of social anxiety in the UCF student population as a whole. This hypothesis arises from the research by Rapee & Heimberg (1997) that ties together the cognitive evaluations and appraisals of socially phobic individuals and their respective consequences. It has been shown that socially phobic individuals are higher self-monitors, highly sensitive to threatening or potentially threatening social situations, and are more likely to have distorted negative mental representations of themselves both physically and in regards to the adeptness of their social behaviors (Rapee & Heimberg, 1997). Thus, it makes sense to take cognitive perceptions into account as a dominant factor in the maintenance of social phobia. Meaning, while social phobia seems to increase negative mindset it is also important to note how negative emotion and social anxiety correlate. A complex dyadic relationship may exist between negative emotion and social phobia where both perpetuate each other.

In sum, I believe that by examining the specific and unique variables that may trigger or enhance social phobic tendencies in the students of UCF it will allow for a better understanding of what directly impacts the students and how certain subsets of the population perceive situations as more anxiety-inducing than others. As a result, campus awareness and treatment of social anxiety can be improved by targeting specific issues that students are experiencing and tailoring treatment towards a more culturally sensitive avenue in approaching these types of disorders.

REVIEW OF LITERATURE

Lack of American College-Based Population Samples

Research concerning social phobia over the last decade has uncovered insight into how this disorder impacts college students, but much of the research has dominated Asian study populations and does not give an idea of how a diverse population such as the United States, and more specifically UCF, experiences social anxiety. This is the first of several caveats that currently plague current research regarding social phobia in college students. One study that exemplifies this cultural divide is by Russell and Shaw (2009) which references prior research showing collectivistic cultures experience far less anxiety than individualistic cultures where it is much more characteristic.

A recent study on Brazilian college students within their native country sought to determine prevalence rates as well as academic impact of social phobia, specifically in female students. After Baptista et al. (2012) collected a large sample of roughly 2,000 eligible participants, individuals were administered the Social Phobia Inventory and a shortened version called the MINI-SPIN; those displaying scores of significant value were then given a structured clinical interview according to DSM-IV standards. Results showed that when accounting for the entire sample, 11.6% would be considered meeting requirements to be classified as having social phobia and more interestingly the women of the sample were reported to have significantly lower grades compared to the males (Baptista et al., 2012). Also, concurrent with recent research, the most common fear reported was public speaking; again this clearly indicates how students with

social phobia can suffer academically due to the nature and structure of certain classes conflicting with their anxieties (Baptista et al., 2012).

Public speaking skills are not being cultivated properly with socially phobic students and this can directly influence job opportunities. This study, however, does not explain any reasoning as to why the women's academic scores were so much lower than the men's or about how social phobia directly impacts their academics negatively as this may only be the case in some classes compared to others. Finally, only 2 out of the final 237 students that met criteria for diagnoses of social phobia had been previously diagnosed and undergoing treatment. However, the prevalence rates shown in the Baptista et al. (2012) sample may be a reflection of cultural teaching styles since Brazilian schools typically implement a more written and test-based approach whereas other cultures may use more interactive approaches within the classroom. These findings, coupled with the increase in online classes being offered, poses the possibility that socially phobic students may opt for this alternative more often instead of the traditional face-to-face approach. When considering the University of Central Florida and its culturally diverse student body, these kinds of variables such as classroom teaching style could have a significant impact on students' social phobic tendencies and ultimately their academics as a whole whether it be in certain classes or interacting with faculty.

Continuing this trend of mixed culture populations, a similar study by Rapee et al. (2011) took a sample of both Eastern and Western college students that used vignettes of shy and outgoing individuals to determine how likable or successful in a career the participants thought the fictional persons would be. Here is where cultural implications have been largely overlooked within diagnoses and treatment of social phobia and anxiety. The results indicated that

Westerners viewed those who appeared out-going as better off overall compared to those in the vignettes who were seen as shy while East Asians did not display this effect (Rapee et al, 2011). A study taking a cross-cultural look at differences on state versus trait anxiety by Leong and Xie (2008) found similar findings in that the Chinese students had reported higher anxiety than American students, but this was particularly observed for social anxiety. This examines the notion that Westerners are more outgoing than Easterners, specifically Asians, but since the samples are composed of native born participants this is not generalizable to Asian students in American or at UCF who are foreign born and move at a young age or those who are third generation children. Also, translation of psychological testing materials could have an impact in the resulting data whereas a culturally mixed American college sample is more likely better adept at interpreting the tests in English.

Cultural norms and reinforcement of shy or outgoing behavior both influence how Westerners and Easterners express these social characteristics. It is interesting to note the finding of how both groups equally expressed a negative relationship between level of social anxiety and its interference with their lives; however, the Western group displayed a much more significant correlation (Rapee et al., 2011). Unfortunately, due to this study not having a mixed cultural population sample, we cannot be sure that these results are very generalizable to students at UCF who have been immersed in the American culture for different periods of time and the cues these students gather from their peers on what is acceptable social behavior. In turn however, results from a study only comprised of the UCF population would not be generalizable to the population at large. This study also failed to include possible gender implications as well as any inclusion of

non-Western or non-Asian members incorporated into the sample, further lessening its generalizability.

Delving deeper into the supposed divide between Asian and European college students in regards to socially phobic tendencies and the situations that provoke them, Lee, Okazaki, and Yoo (2006) gathered from both Asian and European American college students to participate in a two-week long study in which participants entered daily diary excerpts involving times where they felt socially uncomfortable. Data was coded for social aspects like classroom interactions, dates, meetings, etc. (Lee et al., 2006). However, the event sampling method carries some issues like the possibility of participants trying to please the researchers with their diary content or that having to immediately write down and reflect on socially uncomfortable situations may distort the actual perceptions of the participant's emotions. Contrary to other published research on the subject of Asian versus European social anxiety, results showed no difference between the two groups in diary entry context or frequency of socially anxious situations. Some group differences did emerge such as Asian American students spent more time with students of other races and were found to be more anxious in two-person situations whereas European American students stuck more with their own race and were more anxious in group situations (Lee et al., 2006).

One problem with Lee et al.'s study is that the campus population from which the sample was drawn consists of a European student body majority while only 14% are Asian and not many other races were represented. Also, it does not take into account the types of social norms and contexts that are in place with a school that is not widely diverse which may account for the differences in student's socially anxious interactions. However, this does give some insight into the question of situational variables, dyadic groups versus larger groups, the issue of agoraphobic

tendencies, and how they influence American student's perceptions of an anxiety-provoking situation.

Overall, there is still a gap in regards to the generalizability of data since the majority of samples concerning social phobia in college students involves other countries. Population samples from collectivistic cultures such as South America and Asia are not as compatible with the individualistic ideals that the United States holds. Therefore, to increase generalizability and insight, a study examining large culturally diverse campuses such as UCF would be highly beneficial.

Socially-Phobic Behaviors that Impede Higher Education & Social Relationships

The implications that social phobia has on individuals' educational attainments have been documented and clearly shows negative effects on children, adolescents, and young adults as they move through the educational system in order to succeed. At the high school level, social phobia has been shown to negatively impact areas like GPA, school attendance, and if one will go on to pursue further education after high school. In fact, a study by Russell and Shaw (2009) speculates that when avoidance results from severe social anxiety it can particularly damage one's career options when interpersonal skills and knowledge are held equally important. Psychiatric disorders are implicated in 4.7% of college dropouts in the U.S (Farvolden, Mancini, & Van Ameringen, 2001). Evidently, social phobia can be associated with various indicative factors such as potentially dropping out of school. One such factor has been brought to light and this is the issue of public speaking or communication. About a quarter of high school students from previous research have admitted that communication apprehension was one of their sole

reasons for dropping out; furthermore, these students are also highly likely to avoid higher education all together because of these fears (Farvolden, Mancini, & Van Ameringen, 2001).

A study conducted by Van Ameringen et al. (2001) sought to test the claim that public speaking issues related to social phobia were a significant factor in participants' decisions to drop out. They found that nearly half (48.8%) of the total 201 respondents left school prematurely and 61.2% of those who left school prematurely were already diagnosed with generalized social phobia (Van Ameringen et al., 2001). Furthermore, nervousness in school was found to be the major reason, at 22.4%, for leaving prematurely. In addition, those who found school to be intimidating listed "problems speaking in front of the class (36.8%)" to be the main reason why they felt this way (Van Ameringen et al., 2001). Some limitations should be noted, however, such as the somewhat biased sampling method by gathering participants from an anxiety care clinic, the fact that the reports are retrospective in nature, and that the average age of participants was 35 at the time.

Obviously public speaking in the classroom has been shown to have a great impact on socially phobic students and their ambitions to pursue education and participate in classes, but we do not have much other research documenting clear cut "reasons or triggers" that directly impact college students' choices and reasoning behind the paths they might choose within the college community and how they may hinder them. However, another study by Strahan (2003) documents that persistence within one's college career may be a factor correlated with social anxiety and that students high or low on social anxiety may have differences in informational retention levels. The purpose of the study was to see what effect social anxiety had on 253 first year undergraduate students' academics, social ability, and college adjustment. Previous work

building off the topic of social integration and the transference to persistence in one's college career shows that the amount of social interaction a student engages in has a direct influence on whether or not they are persistent within the institution (Strahan, 2003). They found that 55 participants exhibited clinically recognizable social anxiety and identified significantly less control and social expressivity in those high on measures of social anxiety (Strahan, 2003). Despite this, no significant effect of social anxiety was found on academics, specifically GPA, but this may be due to the fact that it targeted only first year students who have not yet reached the level of having more intimate class structures that could foster such socially anxious behaviors. Also, since students' majors were not taken into account we do not know if certain disciplines harbor more socially anxious individuals than others (Strahan, 2003).

The significance of the Strahan (2003) study lies in the finding that high emotional controllers are more likely to dropout and that this may be due to them not forming actual meaningful relationships with others besides at surface level. Socially anxious persons would undoubtedly like control over their perceived anxiety provoking situations and thus would account for these correlations between the two variables. Again, this shows how multiple variables, whether they are external like public speaking or internal like one's ability to control emotions, can all have varying impacts on one's level of social anxiety and further influence both their social relationships as well as academic endeavors.

Cognitive-Behavioral Facets of Social Phobia

The definition of social phobia constructs the idea that those high in social anxiety inherently view social situations as scrutinizing and that they will be viewed critically. This by

itself has clear cognitive implications that point to one's perceptions as a key determiner of threatening or non-threatening stimuli. A study by Rapee and Heimberg (1997) applies the cognitive-behavioral model of psychopathology towards the issue of social phobia. The key focus of this model is on the negative evaluations perceived by socially phobic individuals in social situations, their relative mental representations in these interactions, and how aspects such as audience and attention to salient and non-salient features impact one's level of anxiety (Heimberg & Rapee, 1997).

For this model audience and mental representation go hand in hand, that is to say, a socially phobic individual's mental representation of themselves is likely to reflect their idea of how the audience at hand perceives them and not exactly how they truly perceive themselves. Also, those who are high in social anxiety evaluate their performances, social or otherwise, as more negative regardless of their actual merit and that actual poor performance reflects the individual's negative mental representation like a sort of self-fulfilling prophecy (Heimberg & Rapee, 1997). This has serious implications for college students because they constantly are in social situations on campus, in the classroom, and interacting with teachers, which can all have varying degrees of impact on a student's life if the student is so thoroughly absorbed with how others might evaluate them. It may lead to rumination after perceived negative interactions, which has been shown to be detrimental to psychological health, and is a maladaptive coping mechanism. It also may just lead some to pull away from social interactions to lessen the probability of negative interactions. Structure of social settings has been identified as a possible key factor in determining differing social efficacy between those who are socially phobic and those who are not; such that unclear situations like parties would appear more intimidating than

situations with clear social constructs like a class presentation (Rapee & Heimburg, 1997). Also, socially anxious individuals in the Heimberg and Rapee (1997) study showed some issues in regards to cognitive tasks like the Stroop test where negative and neutral words are presented in different colors and participants ignore the word and report the color as quickly as possible. Those high in social anxiety have shown to be significantly slower on this type of task. Anxiety produces physiological symptoms such as blushing and sweating and result when one believes a situation they will be in or are currently in will end up in them being negatively assessed. In turn, this continues to perpetuate the idea of an individual being scrutinized negatively.

Another study by Wong (2012) sought to uncover the effects that negative versus positive thinking has on an individual's well-being and mental health. In this case, negative thinking would lead to psychological problems while positive thinking would act as a barrier against harms to one's psyche. Multiple psychological tests including the Beck Anxiety Inventory, Oxford Happiness Questionnaire-Short, and Satisfaction with Life Scale were given to a sample of 398 Asian college students where the data was analyzed in correlation with variables like anxiety, stress, and happiness (Wong, 2012). The results that are pertinent to the issue of social phobia revealed that life satisfaction was positively correlated with positive thinking and that negative thinking produced significantly more anxiety along with other psychological issues (Wong, 2012). Wong (2012) believes this may be due to negative thinking having more of an impact than positive thinking on those psychological facets.

Social anxiety overall can be associated with less positive emotions increased amounts of negative emotions. In turn, these negative emotions can negatively influence students' life orientation as well as college adjustment. These studies also indicate cognition as an important

factor in the probability and fostering of social phobia and anxious tendencies. A positive disposition, healthy coping mechanisms, and an accurate realistic outlook on life have been shown to prevent social anxiety and combat its negative influences like avoidance and fear. Overall, a multiculturally representative sample obtained from a large American university would be highly beneficial to the continued dialogue on prevalence rates of social phobia in college students. In addition to this, uncovering specific variables that provoke social anxiety like public speaking or one's ability to have control of their surroundings would be extremely helpful in tailoring counseling practices to student's needs. And again a student's cognitive perspective, particularly an optimistic versus pessimistic disposition, should have a sizable impact on whether or not a student expresses socially phobic behavior due to the core tenet of social phobia arising from a mental fear of social scrutiny.

METHODOLOGY

Participants

Students currently enrolled in the University of Central Florida that are 18 years of age or above and are enrolled within a course that offers access to the Sona system comprised the participant population of this study. This included all undergraduates, graduates, transfer students, and both full and part-time enrollment status. Students were recruited for the study through word of mouth and through the secure Psychology research participation system known as Sona. Students may have been able to receive SONA credits to be used towards certain classes if the class permitted, for extra or partial course credit. Due to the nature of the study, the sample was collected by convenience. A total of 196 participants were initially recruited for this study.

Materials

The four tests used included the College Affiliation Questionnaire (CAQ), Life Orientation Test Revised (LOT-R), Positive and Negative Affect Schedule (PANAS), and the Social Phobia and Anxiety Inventory-23 (SPAI-23). An infrequency scale was also used to eliminate invalid or unreliable responses from the set. There were a total of 8 infrequency items, all true or false in nature, which would typically have a uniform pattern of answers for most all people. All surveys were compiled together into an online survey format to ensure anonymity of participants, avoid researcher influence, and allow flexibility and convenience.

College Affiliation Questionnaire (CAQ)

The College Affiliation Questionnaire includes 13-items which evaluate academic persistence in college students (Cabrera et al. 1993). It has 4 subscales: Institutional Commitment, Social Adjustment, Academic Adjustment, and College Adjustment. Scoring was on a 1 (Not at all like me) to 5 (Exactly like me) scale with higher numbers representing more positive attitudes. The four subscales were summed together due to how little items there were. Reliability alphas have only been documented for the subscales concerning Social Adjustment and Academic Adjustment, which range from 0.75 to 0.92.

Life Orientation Test Revised (LOT-R)

The LOT-R is a brief 10-item measure that evaluates personal differences in optimism and pessimism and the consequences it may pose towards areas of general health or behavioral issues (Carver, Scheier, Segerstrom, 2010). Scoring was determined on a 1 (I agree a lot) to 5 (I disagree a lot) scale with lower scores representing higher overall disposition. Test-retest reliability for the LOT-R has an internal consistency coefficient mean of 0.72 and robust validity.

Positive and Negative Affect Schedule (PANAS)

This is a 20-question scale that measures positive and negative affect in persons (Clark, Tellegen, Watson, 1988). Words are presented that represent different emotions and participants rate how closely it relates to them on a 1 (Very slightly/Not at all) to 5 (Extremely) Likert scale. The Positive Affect scale and Negative Affect scale each contained 10 items a piece and were summed separately. Scoring was determined on a 1 (Very slightly or Not at all) to 5 (Extremely)

scale where scores could range from 10-50. For the positive affect portion, higher scores indicate higher levels of positive affect. Inversely, lower scores on the negative affect portion would indicate lower levels of negative affect. The PANAS displayed Cronbach alpha coefficients for the Positive Affect Scale from 0.86 to 0.90 and for the Negative Affect Scale it was from 0.84 to 0.87. It has shown strong validity especially for such measures of general distress and anxiety.

Social Phobia and Anxiety Inventory – 23 (SPAI-23)

This is a condensed 23-item version of the SPAI, which measures social anxiety as well as fear. It has two subscales for agoraphobia and social phobia (Beidel et al. 1989). The Social Phobia portion of the SPAI-23 consisted of 16 items while the Agoraphobia portion consisted of 7. Both subscales were scored separately and used the same 1 (Not true of me at all) to 7 (Extremely true of me) method for scoring. Higher scores on either scale would represent higher levels of agoraphobia or social phobia. Test-retest reliability for the SPAI-23 shows a mean of $r=0.72$. It also displays strong convergent with similar measures and discriminant validity with dissimilar measures.

Design & Procedure

Participants were directed through the Sona system to a secure online survey website, Qualtrics.com, to complete a compilation of demographics information and several psychological tests to collect data. Demographics included age, gender, race/ethnicity, major, in or out of state residency, level of involvement in extracurricular activities, economic level,

employment status, and current living situation. Simple linear correlations and t-tests were run on the resulting data using statistical analysis software (SPSS).

RESULTS

Demographics

A total of 165 participants' data were used for the study. This final total was reached after removing those data that were discounted by the infrequency scale. The sample population consisted of 110 women and 54 men, ranging in age from under 18 (1.2%), 18 to 20 (50.9%), 21 to 23 (32.1%), 24 to 25 (3%), and 25 or older (11.5%). Seniors made up the majority of the sample (31.5%), followed by Juniors (24.8%), Freshman (22.4%), Sophomores (15.2%), and finally Graduate students (0.6%). The top three most represented races/ethnicities were Caucasian/White (61.2%), followed by African Americans (10.3%), and Hispanics (9.7%). Nearly all participants claimed in-state residency (96.4%) compared to a minute amount claiming to be from out of state (3%). Over half of the students did not have any involvement in extracurricular activities (52.1%) while those who did participate in extracurriculars accounted for roughly half of the population at 47.6%. Out of those who did participate in extracurriculars, the majority engaged in about 1-2 activities (35.8%). The most widely represented major was Psychology at 42.4% followed by Biomedical Sciences at 9.1% and Health Sciences/Pre-Clinical coming in as the third most declared major at 4.8%. Over a third of students (37%) reported having a part-time job in addition to school, which accounts for the fact that 81.2% of them estimated an income of under \$15,000. Finally, nearly half of the sample said they lived in some type of off-campus housing; however many also reported living at home with parents (32.1%).

This study was correlational in nature due to the main goal of examining how the variables of interest were associated with social anxiety. Simple linear correlations were run to

analyze the survey results. Some variables also considered in addition to demographics such as gender, race/ethnicity, and current major were aspects such as level of college adjustment (measured by the CAQ), feelings on quality of life, motivation (intrinsic vs. extrinsic), and level of dispositional optimism (measured by the LOT-R and PANAS).

Descriptive Statistics Regarding Psychological Tests

Descriptive statistics showed a high mean from the Social Phobia scale within the SPAI-23 ($M=50.96$, $SD=21.34$) as well as a largely varied standard deviation. The other means and standard deviations for all over subscales are as follows: College Adjustment scale from the CAQ ($M=35.98$, $SD=7.03$), Positive Affect score from the PANAS ($M=35.11$, $SD=6.46$), Institutional Commitment scale from the CAQ ($M=24.48$, $SD=5.05$), Negative Affect score from the PANAS ($M=19.76$, $SD=5.73$), Agoraphobia scale from the SPAI-23 ($M=14.54$, $SD=6.81$), LOT-R ($M=14.06$, $SD=4.88$), the Academic Adjustment scale from the CAQ ($M=11.38$, $SD=3.06$), and finally the Social Adjustment scale also from the CAQ ($M=6.41$, $SD=2.66$). Next, correlations between scales were assessed using Pearson's product moment correlation coefficient.

Correlations Existing Between the Psychological Tests

The strongest positive relationship emerged between the SPAI-23 and the Negative Affect portion of the PANAS ($r = 0.31$, $p < 0.01$). Similarly, SPAI-23 was negatively correlated with Positive Affect ($r = -0.25$, $p < 0.01$). Negative Affect scores were in turn correlated with the

overall College Adjustment Questionnaire ($r = 0.22, p < 0.01$) as well as the Life Orientation Test ($r = 0.50, p < 0.01$).

Correlations Existing Between Psychological Tests & Student Characteristics

Only three correlations were identified between student characteristics and the four psychological surveys. For one, the agoraphobia scale from the SPAI-23 was positively correlated with both gender ($r = 0.28, p < 0.01$) and age ($r = 0.17, p < 0.05$) overall. In addition, current employment status was positively correlated with the social phobia scale ($r = 0.19, p < 0.05$). However, it was also negatively correlated with positive affect scores ($r = -0.16, p < 0.05$).

Findings of Independent Samples T-tests and ANOVAs On Student Characteristics & Psychological Surveys

After correlations, independent samples t-tests were run between the student characteristics of gender, race, extracurricular involvement and the SPAI-23. ANOVAs were run between age, amount of extracurricular activities, living situation, employment and the SPAI-23. Out of every test, only gender was significant. All other tests yielded insignificant findings.

The sexes of the participants were coded as either “1” for male or “2” for female which resulted in significantly more females ($M = 69.69, SD = 27.86$) than males ($M = 57.02, SD = 19.85$). The independent samples t-test using the gender data and the SPAI-23 showed significant differences in means between the two, $t(162) = -2.99, p = .003$.

Correlations Run Between Surveys and the Sexes

After finding a significant difference between SPAI-23 and genders, linear correlations were used to further analyze the relationship between sex and social phobia. Surprisingly, there was not one single significant correlation between the SPAI-23 and any of the surveys regarding male students. However, when factoring for females, all the correlations between the SPAI-23 and other psychological surveys was found to be significant. Specifically, females had a significant negative correlation between the SPAI-23 and positive affect ($r = -0.34, p < 0.01$). Conversely in females, there were significant positive correlations between the SPAI-23 and negative affect ($r = 0.33, p < 0.01$). There was also a significant negative correlation between the SPAI-23 and the College Adjustment Questionnaire ($r = -0.25, p < 0.01$). Finally, a significant positive correlation was found between the SPAI-23 and the Life Orientation Test ($r = 0.28, p < 0.01$).

DISCUSSION

Due to the limited number of participants and perhaps due to the fact that recruitment practices were biased in that only those taking psychology courses were involved not many clear connections were found between participants' demographic data that indicated specifics such as major or school involvement and their levels of social phobia. Only gender, age, and current employment status accounted for the three out of ten characteristics that were somewhat significant. When broken down, gender by itself was the only characteristic significantly linked to the Social Phobia and Anxiety Inventory. Furthermore, when the sexes are figured separately alongside the survey, it shows that women are overwhelmingly experiencing more negative emotions and socially phobic behaviors compared to their male counterparts. This gives evidence to my hypothesis of identifying underlying predictors between student characteristics and social phobia. Current employment status having a weak negative correlation with positive affect score and a positive with social phobia indicates that in some way obtaining and maintaining a job could potentially alter one's emotions. However, these results seem to show contradictory relationships that do not make much sense according to research. For example, the Center for Disease Control (2013) claims that employment and income foster a notable amount of well-being as well as allowing access to resources and enhancing self-worth. This is clearly contradictory to the finding that employment correlates with a lower level of positive affect. This could be the result of population sample as college students may not necessarily need to work and it interferes with their school and social lives resulting in a more negative link. Also, individuals in college are disproportionately known to be working in low-paying jobs such as food service or retail. It appears that participant characteristics such as these, at least in this case,

did not impact overall quality of life either. It is, however, already known that certain aspects of social interaction (e.g., class groups, speeches, etc.) do have an exacerbating impact on those who are already socially anxious.

However, the fact that social phobia and anxiety are so positively correlated with negative emotions is not surprise considering the established evidence of negative mood fostering socially anxious behaviors. Positive emotion, in turn, would indicate lower instances of these socially disadvantageous behaviors such as dropping out or withdrawal from others. This falls in line with my hypothesis concerning the link between social anxiety and one's perception in regards to their life. This displays a connection between cognition or more specifically pessimism versus optimism and its important role in the expression of problematic behaviors such as withdrawal from others (Heimberg & Rapee, 1997). It gives evidence that either a negative or positive disposition could impact how students interact around their campus environment and peers. This was shown through the strong negative correlation between the LOT-R and negative affect because the high negative emotions coupled with low life orientation which can represent how situational emotions impact the quality of day to day life and perhaps in turn social interactions. The negative affect portion of the PANAS accounts for those emotions most often seen as pessimistic; therefore, this would mean the more pessimistic mindset of the student, the more apt they are to have fewer mental health benefits and the more likely they are to possess social phobia. The PANAS covers a variety of emotional states ranging from nervousness to enthusiasm and the SPAI-23 presents both those agoraphobic as well as socially phobic situational statements which in combination can account for the anxiety-provoking cognition in those predisposed to social phobia. There is already an established correlation

between a socially anxious individual's perceptions of neutral stimuli versus those who are not socially anxious. These people tend to have an inherent cognitive bias that reflects negatively on ambiguous social situations (Amir & Beard, 2009). This is especially true considering "state" anxiety or anxiety that arises from a particular social setting or interaction.

Although the Social Phobia and Anxiety Inventory did not directly correlate with overall quality of life scores presented in the Life Orientation Test, it is interesting to note that the Negative Affect scale did correlate negatively with Life Orientation, which may indicate a triadic relationship between the three separate scales. A multidimensional relationship may exist where some aspects of one scale interact with another, yet another portion of the same scale may be unrelated.

Limitations Regarding Situational Variables & Their Influence on Social Phobia

One particular reason that not many strong connections were identified between the students' demographic information and their reported levels of social phobia, positive or negative affect, and overall life satisfaction may be due to the fact that there was simply not enough data. By only having access through the Sona system to those students currently enrolled in a Psychology course, and nearly half of all participants reporting that they were Psychology majors, this could have impacted the variety of the data. Also, perhaps adding an additional type of model that employs the use of specific neutral social situations instead of those that are more obviously proposed as anxiety provoking scenarios it could show connections that exist between those specific situations that were not expressed with just the SPAI and participants' demographic characteristics.

Suggestions for Further Research into Social Characteristics & Their Connection to College Students' Social Phobia

A broader study utilizing more means for survey dissemination than the Sona system would offer a better picture of the diversity within the UCF campus. A better representation of the variety of majors at UCF would help in understanding social phobia across disciplines rather than just the majority being Psychology students.

For future research, a subset of neutral “state” anxiety statements tailored to social interactions college students would typically have at UCF could be presented to students in addition to the psychological surveys and demographics used here. These could be presented as short video clip or written scenarios given along with the surveys so participants could still be involved anonymously online. This could offer insight into some of the specific social situations like group class meetings, oral presentations, or mandatory club events that have the potential to induce socially anxious behaviors in college students compared to the greater population.

Lastly, further study needs to be made on the reasons why female students have shown such highly elevated levels of social phobia compared to males. Females may experience unique situations of their own or have differing viewpoints regarding social interaction that could account for these differences.

Contributions to the UCF Population: Plans for Awareness and Accommodations

Through the evaluation of social anxiety and its prevalence, cues, and impairments that specifically target college students, a better overall understanding of the issue as well as better-tailored services to combat it can arise. While no clear characteristics besides sex emerged as

signs of social phobia between testing, it is safe to say that negative emotions play an instrumental role in the expression of socially phobia behaviors and that they have the potential to influence one's overall life satisfaction. This was especially shown to be true with females and suggests that perhaps female students need to be specifically targeted in ways to address potential social phobia. If females are disproportionately being impacted by the negative effects of social phobia, then in turn they could be seen as more likely to experience the negative outcomes associated with social phobia such as dropping out. I believe that, as espoused in the Clark & Wells article (1995), that cognition plays a role in the maintenance of social phobia in that individuals who have experienced many different types of social situations still manage to experience fear in similar situations because they are still so internally focused and judge other's evaluations based on their own thoughts. It appears in a cycle where the individual believes social environments will only bring negative outcomes, overestimates the situation, and underestimates their ability to be socially adept.

More awareness concerning the harmful impacts of social anxiety on class performance, peer interactions, and involvement could help inform the campus community and make it more likely that students will reach out to one another. For example, perhaps an informal optional seminar offered to all first year students when making their transition into college. In addition to a seminar, creating a more accessible system where students and faculty can meet collaborate within their disciplines in order for students to receive the confidence-building benefits that come with mentorship (Strahan, 2003). If individuals are equipped with the tools to modify their beliefs about social situations, manage their self-image realistically, and to shift their focuses externally then they will be better able at combatting social phobia early (Clark & Wells, 1995).

Also, making accommodations for those students who do have anxiety issues would be helpful such as offering more options for online classes or creative ways, such as video collaboration, for group projects to be conducted online as well as in person.

CONCLUSION

In sum, social anxiety can be a unique and complex cognitive illness that has the ability to negatively influence college students' emotions and in turn these negative emotions manifest in an overall diminished quality of life. One's sex presents a unique linkage between reported levels of social phobia and mentality as well as their emotions towards college in general; females disproportionately experience more pessimism and negative views towards college experiences. College represents such diverse populations as well as a turning point in life and therefore students' mental health and comfort in their surroundings should be highly regarded through campus awareness efforts. However, more research should be conducted in order to gain a better varied population sample where students are asked to do self-report surveys in addition to the presentation of ambiguous social scenarios, like in the form of video clips, that participants can rank order. Social anxiety's rampant increase in years, especially in today's youth, is cause for concern ultimately in the future after these behaviors have had time to settle from not being given the necessary therapeutic cognitive and behavioral strategies to bring themselves out of these fears.

APPENDIX A: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Daniel S. McConnell and Co-PI: Kasie Wallace**

Date: **September 11, 2013**

Dear Researcher:

On 9/11/2013, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination
Project Title: Risk Factors Identified in College Students Exhibiting Social Phobia
Investigator: Daniel S. McConnell
IRB Number: SBE-13-09579
Funding Agency:
Grant Title:
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 09/11/2013 01:31:19 PM EDT

IRB Coordinator

**APPENDIX B: POSITIVE AND NEGATIVE AFFECT
SCHEDULE (PANAS)**

POSITIVE AND NEGATIVE AFFECT SCHEDULE (PANAS): SELF

We are interested in some of the ways you feel, on the average. Following is a list of words that describe different feelings and emotions. Please read each item and then circle the appropriate number to indicate to what extent you generally feel this way—that is, how you feel on the average.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1. Interested	1	2	3	4	5
2. Distressed	1	2	3	4	5
3. Excited	1	2	3	4	5
4. Upset	1	2	3	4	5
5. Strong	1	2	3	4	5
6. Guilty	1	2	3	4	5
7. Scared	1	2	3	4	5
8. Hostile	1	2	3	4	5
9. Enthusiastic	1	2	3	4	5
10. Proud	1	2	3	4	5
11. Irritable	1	2	3	4	5
12. Alert	1	2	3	4	5
13. Ashamed	1	2	3	4	5
14. Inspired	1	2	3	4	5
15. Nervous	1	2	3	4	5
16. Determined	1	2	3	4	5
17. Attentive	1	2	3	4	5
18. Jittery	1	2	3	4	5
19. Active	1	2	3	4	5
20. Afraid	1	2	3	4	5

APPENDIX C: LIFE ORIENTATION TEST – REVISED (LOT-R)

LOT-R

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

- 1 = I agree a lot
- 2 = I agree a little
- 3 = I neither agree nor disagree
- 4 = I disagree a little
- 5 = I disagree a lot

1. In uncertain times, I usually expect the best.

1 - 2 - 3 - 4 - 5

2. It's easy for me to relax.

1 - 2 - 3 - 4 - 5

3. If something can go wrong for me, it will.

1 - 2 - 3 - 4 - 5

4. I'm always optimistic about my future.

1 - 2 - 3 - 4 - 5

5. I enjoy my friends a lot.

1 - 2 - 3 - 4 - 5

6. It's important for me to keep busy.

1 - 2 - 3 - 4 - 5

7. I hardly ever expect things to go my way.

1 - 2 - 3 - 4 - 5

8. I don't get upset too easily.

1 - 2 - 3 - 4 - 5

9. I rarely count on good things happening to me.

1 - 2 - 3 - 4 - 5

10. Overall, I expect more good things to happen to me than bad.

1 - 2 - 3 - 4 - 5

**APPENDIX D: SOCIAL PHOBIA AND ANXIETY INVENTORY –
23 (SPAI-23)**

Based on your personal experience, please indicate how frequently you experience these feelings and thoughts in social situations. A social situation is defined as a gathering of two or more people. For example: a meeting, a lecture, a party, a bar or restaurant, conversing with one other person or group of people, etc. **FEELING ANXIOUS IS A MEASURE OF HOW TENSE, NERVOUS, OR UNCOMFORTABLE YOU ARE DURING SOCIAL ENCOUNTERS.** Please use the scale below and circle the number which best reflects how frequently you experience these responses.

Social Phobia subscale

Not true of me at all - 1 - 2 - 3 - 4 - 5 - 6 - 7 - Extremely true of me

1. I feel anxious when entering social situations where there is a small group.

1 - 2 - 3 - 4 - 5 - 6 - 7

2. I feel anxious when entering social situations where there is a large group.

1 - 2 - 3 - 4 - 5 - 6 - 7

3. I feel anxious when I am in a social situation and I am expected to engage in some kind of activity.

1 - 2 - 3 - 4 - 5 - 6 - 7

4. I feel anxious when speaking in a small informal meeting.

1 - 2 - 3 - 4 - 5 - 6 - 7

5. I feel anxious when making a speech in front of an audience.

1 - 2 - 3 - 4 - 5 - 6 - 7

6. I feel anxious when in a small gathering with other people.

1 - 2 - 3 - 4 - 5 - 6 - 7

7. I feel anxious when in a large gathering with other people.

1 - 2 - 3 - 4 - 5 - 6 - 7

8. I feel anxious when in a bar or restaurant with others.

1 - 2 - 3 - 4 - 5 - 6 - 7

9. I feel anxious and I do not know what to do when in a new situation with other people.

1 - 2 - 3 - 4 - 5 - 6 - 7

10. I feel anxious when stating an opinion to others.

1 - 2 - 3 - 4 - 5 - 6 - 7

11. I feel anxious when talking about business with people.

1 - 2 - 3 - 4 - 5 - 6 - 7

12. I feel anxious when approaching and/or initiating a conversation with other people.

1 - 2 - 3 - 4 - 5 - 6 - 7

13. I feel anxious when having to interact for longer than a few minutes with other people.

1 - 2 - 3 - 4 - 5 - 6 - 7

14. I feel anxious when speaking in front of others.

1 - 2 - 3 - 4 - 5 - 6 - 7

15. I feel anxious before entering a social situation.

1 - 2 - 3 - 4 - 5 - 6 - 7

16. I experience troublesome thoughts when I am in a social setting.

1 - 2 - 3 - 4 - 5 - 6 - 7

Agoraphobia subscale

17. I feel anxious when I am on any form of public transportation (i.e., bus, train, airplane).

1 - 2 - 3 - 4 - 5 - 6 - 7

18. I feel anxious when crossing streets.

1 - 2 - 3 - 4 - 5 - 6 - 7

19. I feel anxious when I am in crowded public spaces (i.e., stores, church, movies, restaurants).

1 - 2 - 3 - 4 - 5 - 6 - 7

20. Being in a large open space makes me feel anxious.

1 - 2 - 3 - 4 - 5 - 6 - 7

21. I feel anxious when I am in enclosed places (i.e., elevators, tunnels, etc.).

1 - 2 - 3 - 4 - 5 - 6 - 7

22. I feel anxious when riding in a car.

1 - 2 - 3 - 4 - 5 - 6 - 7

23. There are certain places I do not go because I may feel trapped.

1 - 2 - 3 - 4 - 5 - 6 - 7

APPENDIX E: COLLEGE AFFILIATION QUESTIONNAIRE (CAQ)

Appendix. College Affiliation Questionnaire (CAQ)

Read each statement carefully and decide which response best applies to you.

A	B	C	D	E
Not at all like me	A little like me	Like me	Very much like me	Exactly like me

1. It is important for me to get a college degree.
2. I am confident I have made the right decision in choosing to attend _____.
3. My close friends rate _____ as a quality institution.
4. I have performed academically as well as I anticipated I would at _____.
5. I am satisfied with my course curriculum here at _____.
6. My education at _____ will help me secure future employment.
7. I am satisfied with the amount of financial support (grants, loans, family, jobs) I have received while attending _____.
8. I am satisfied with my academic experience.
9. It is very important for me to graduate from _____ as opposed to graduating from some other school.
10. Since coming to _____ I have developed close personal relationships with other students.
11. It is important for me to finish my program of study.
12. It has been easy for me to meet and make friends with other students at _____.
13. I feel I belong at _____.

Subscales Used in this Study:

a. Institutional Commitment: Includes items 1, 2, 3, 6, 9, and 11.

b. Social Adjustment: Includes items 10 and 12

c. Academic Adjustment: Includes items 4, 5, and 8

d. College Adjustment: Includes items 1, 2, 3, 4, 5, 6, 8, 9, 11

APPENDIX F: INFREQUENCY SCALE

Infrequency Scale

Note: These are all True/False.

There have been a number of occasions when people I know have said hello to me.

I cannot remember a single occasion when I have ridden on a bus.

I find that I often walk with a limp, which is the result of a skydiving accident.

There have been times when I have dialed a telephone number only to find that the number was busy.

I visited Easter Island last year.

I go at least once every two years to visit either northern Scotland or some parts of Scandinavia.

Sometimes I feel sleepy or tired.

On some occasions I have noticed that some other people are better dressed than myself.

**APPENDIX G: DESCRIPTIVE STATISTICS & CORRELATIONS
FOR PSYCHOLOGICAL SURVEYS**

TABLE A1

Descriptive Statistics

	Mean	Std. Deviation	N
Positive Affect Score	35.1091	6.45530	165
Negative Affect Score	19.7576	5.73410	165
Life Orientation Test Revised	14.0606	4.88239	165
Social Phobia Scale	50.9576	21.34455	165
Agoraphobia Scale	14.5394	6.80701	165
Institutional Commitment	24.4848	5.04807	165
Social Adjustment	6.4121	2.66410	165
Academic Adjustment	11.3818	3.05732	165
College Adjustment	35.9758	7.03125	165

Descriptive statistics for psychological surveys

TABLE A2

Correlations

		Positive Affect Score	Negative Affect Score	Life Orientation Test Revised	Social Phobia Scale	Agoraphobia Scale	Institutional Commitment	Social Adjustment	Academic Adjustment	College Adjustment
Positive Affect Score	Pearson Correlation	1	-.226**	-.457*	-.245**	-.115	.317**	.196*	.306*	.341*
	Sig. (2-tailed)		.003	.000	.002	.141	.000	.012	.000	.000
	N	165	165	165	165	165	165	165	165	165
Negative Affect Score	Pearson Correlation	-.226**	1	.501*	.289**	.278**	-.147	-.066	.295*	.231*
	Sig. (2-tailed)	.003		.000	.000	.000	.060	.402	.000	.003
	N	165	165	165	165	165	165	165	165	165
Life Orientation Test Revised	Pearson Correlation	-.457**	.501**	1	.203**	.163*	-.114	-.114	.170*	-.149
	Sig. (2-tailed)	.000	.000		.009	.036	.147	.143	.029	.056
	N	165	165	165	165	165	165	165	165	165
Social Phobia Scale	Pearson Correlation	-.245**	.289**	.203*	1	.607**	-.036	.269*	-.059	-.064
	Sig. (2-tailed)	.002	.000	.009		.000	.650	.000	.455	.413
	N	165	165	165	165	165	165	165	165	165
Agoraphobia Scale	Pearson Correlation	-.115	.278**	.163*	.607**	1	-.037	.212*	-.100	-.084
	Sig. (2-tailed)		.003	.036	.000		.650	.012	.000	.000
	N	165	165	165	165	165	165	165	165	165

	Sig. (2-tailed)	.141	.000	.036	.000		.638	.006	.200	.283
	N	165	165	165	165	165	165	165	165	165
Institutional Commitment	Pearson Correlation	.317**	-.147	-.114	-.036	-.037	1	.384*	.594*	.901*
	Sig. (2-tailed)	.000	.060	.147	.650	.638		.000	.000	.000
	N	165	165	165	165	165	165	165	165	165
Social Adjustment	Pearson Correlation	.196*	-.066	-.114	.269**	-.212**	.384**	1	.330*	.427*
	Sig. (2-tailed)	.012	.402	.143	.000	.006	.000		.000	.000
	N	165	165	165	165	165	165	165	165	165
Academic Adjustment	Pearson Correlation	.306**	.295**	-.170*	-.059	-.100	.594**	.330*	1	.849*
	Sig. (2-tailed)	.000	.000	.029	.455	.200	.000	.000		.000
	N	165	165	165	165	165	165	165	165	165
College Adjustment	Pearson Correlation	.341**	.231**	-.149	-.064	-.084	.901**	.427*	.849*	1
	Sig. (2-tailed)	.000	.003	.056	.413	.283	.000	.000	.000	
	N	165	165	165	165	165	165	165	165	165

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

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

**APPENDIX H: DESCRIPTIVE STATISTICS OF
STUDENT CHARACTERISTICS**

TABLE B1

Current living situation

		Frequency	Percent	Valid Percent	Cumulative Percent
	On-campus housing/Residence hall	28	17.0	17.1	17.1
	Off-campus housing	79	47.9	48.2	65.2
Valid	Living at home with family	53	32.1	32.3	97.6
	Fraternity/Sorority house	4	2.4	2.4	100.0
	Total	164	99.4	100.0	
Missing	System	1	.6		
Total		165	100.0		

TABLE B2

Current employment status

		Frequency	Percent	Valid Percent	Cumulative Percent
	Full Time	15	9.1	9.1	9.1
	Part Time	61	37.0	37.2	46.3
	Unemployed/Looking for work	29	17.6	17.7	64.0
Valid	Full Time Student	54	32.7	32.9	97.0
	Other	5	3.0	3.0	100.0
	Total	164	99.4	100.0	
Missing	System	1	.6		
Total		165	100.0		

TABLE B3

2013 expected income after taxes

		Frequency	Percent	Valid Percent	Cumulative Percent
	Under \$15,000	134	81.2	82.7	82.7
	\$15,000-\$25,000	18	10.9	11.1	93.8
	\$25,000-\$35,000	7	4.2	4.3	98.1
Valid	\$35,000-\$45,000	1	.6	.6	98.8
	\$55,000+	2	1.2	1.2	100.0
	Total	162	98.2	100.0	
Missing	System	3	1.8		
Total		165	100.0		

TABLE B4

Amount of extracurricular activities in which they participate

		Frequency	Percent	Valid Percent	Cumulative Percent
	1-2	59	35.8	36.0	36.0
	2-3	15	9.1	9.1	45.1
	3-4	2	1.2	1.2	46.3
Valid	4-5	3	1.8	1.8	48.2
	5+	1	.6	.6	48.8
	N/A	84	50.9	51.2	100.0
	Total	164	99.4	100.0	
Missing	System	1	.6		
Total		165	100.0		

TABLE B5

Involvement in extracurricular activities

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	78	47.3	47.6	47.6
Valid	No	86	52.1	52.4	100.0
	Total	164	99.4	100.0	
Missing	System	1	.6		
Total		165	100.0		

TABLE B6

In or Out of state resident

		Frequency	Percent	Valid Percent	Cumulative Percent
	In state	159	96.4	97.0	97.0
Valid	Out of state	5	3.0	3.0	100.0
	Total	164	99.4	100.0	
Missing	System	1	.6		
Total		165	100.0		

TABLE B7

Racial/Ethnic classification

		Frequency	Percent	Valid Percent	Cumulative Percent
	Arabic	2	1.2	1.2	1.2
	Asian/Pacific Islander	10	6.1	6.1	7.3
	African American	17	10.3	10.4	17.7
	Caucasian/White	101	61.2	61.6	79.3
Valid	Hispanic	16	9.7	9.8	89.0
	Latino	5	3.0	3.0	92.1
	Multiracial	9	5.5	5.5	97.6
	Would rather not say	3	1.8	1.8	99.4
	Other	1	.6	.6	100.0
	Total	164	99.4	100.0	
	Missing	System	1	.6	
Total		165	100.0		

TABLE B8

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	54	32.7	32.9	32.9
Valid	Female	110	66.7	67.1	100.0
	Total	164	99.4	100.0	
Missing	System	1	.6		
Total		165	100.0		

TABLE B9

Year of residency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshman	37	22.4	23.7	23.7
	Sophomore	25	15.2	16.0	39.7
	Junior	41	24.8	26.3	66.0
	Senior	52	31.5	33.3	99.4
	Graduate Student	1	.6	.6	100.0
	Total	156	94.5	100.0	
Missing	System	9	5.5		
Total		165	100.0		

TABLE B10

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 18	2	1.2	1.2	1.2
	18-20	84	50.9	51.5	52.8
	21-23	53	32.1	32.5	85.3
	24-25	5	3.0	3.1	88.3
	Over 25	19	11.5	11.7	100.0
	Total	163	98.8	100.0	
Missing	System	2	1.2		
Total		165	100.0		

APPENDIX I: GENDER – CORRELATIONS & T-TEST

Correlations^a - Males & Social Phobia

		Positive Affect Score	Negative Affect Score	Life Orientation Test Revised	Social Phobia Total	College Adjustment Total
Positive Affect Score	Pearson Correlation	1	-.081	-.386**	.126	.391**
	Sig. (2-tailed)		.559	.004	.363	.004
	N	54	54	54	54	54
Negative Affect Score	Pearson Correlation	-.081	1	.302*	.179	-.241
	Sig. (2-tailed)	.559		.027	.196	.080
	N	54	54	54	54	54
Life Orientation Test Revised	Pearson Correlation	-.386**	.302*	1	.015	-.228
	Sig. (2-tailed)	.004	.027		.912	.097
	N	54	54	54	54	54
Social Phobia Total	Pearson Correlation	.126	.179	.015	1	.122
	Sig. (2-tailed)	.363	.196	.912		.379
	N	54	54	54	54	54
College Adjustment Total	Pearson Correlation	.391**	-.241	-.228	.122	1
	Sig. (2-tailed)	.004	.080	.097	.379	
	N	54	54	54	54	54

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

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

a. Sex of Participant = 1.00 (Male)

Correlations^a – Females & Social Phobia

		Positive Affect Score	Negative Affect Score	Life Orientation Test Revised	Social Phobia Total	College Adjustment Total
Positive Affect Score	Pearson Correlation	1	-.268**	-.477**	-.344**	.428**
	Sig. (2-tailed)		.005	.000	.000	.000
	N	110	110	110	110	110
Negative Affect Score	Pearson Correlation	-.268**	1	.567**	.327**	-.302**
	Sig. (2-tailed)	.005		.000	.000	.001
	N	110	110	110	110	110
Life Orientation Test Revised	Pearson Correlation	-.477**	.567**	1	.280**	-.230*
	Sig. (2-tailed)	.000	.000		.003	.016
	N	110	110	110	110	110
Social Phobia Total	Pearson Correlation	-.344**	.327**	.280**	1	-.249**
	Sig. (2-tailed)	.000	.000	.003		.009
	N	110	110	110	110	110
College Adjustment Total	Pearson Correlation	.428**	-.302**	-.230*	-.249**	1
	Sig. (2-tailed)	.000	.001	.016	.009	
	N	110	110	110	110	110

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

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

a. Sex of Participant = 2.00 (Female)

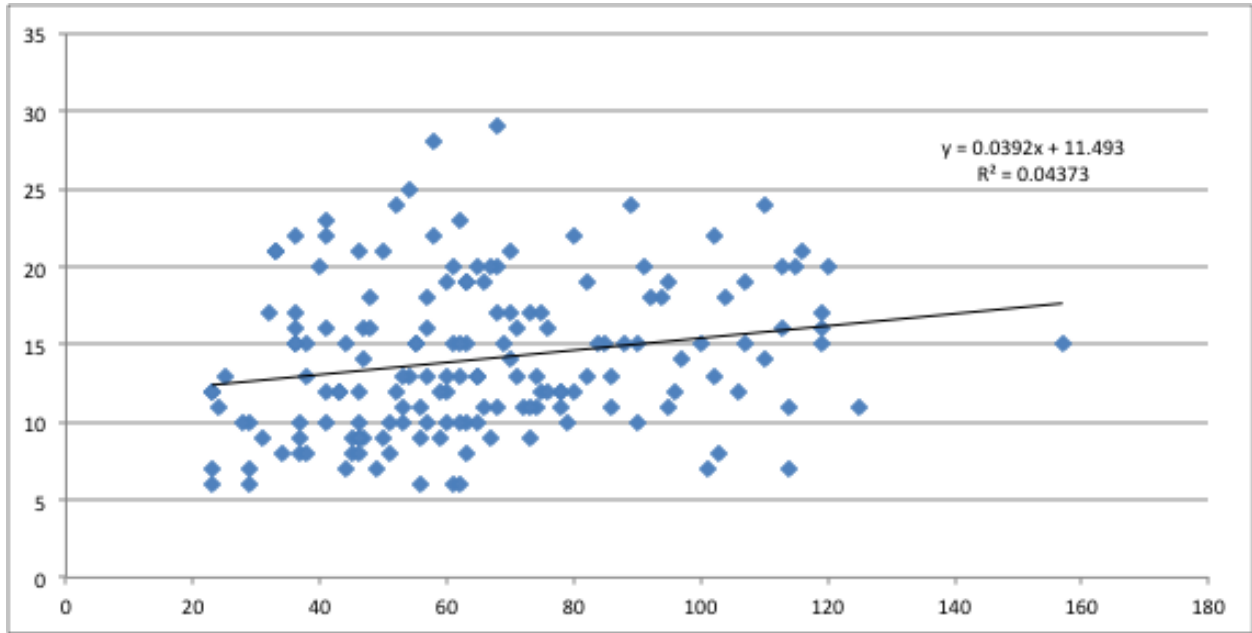
Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Social Phobia Total	1.00	54	57.0185	19.85085	2.70136
	2.00	110	69.6909	27.85043	2.65543

Independent Samples Test

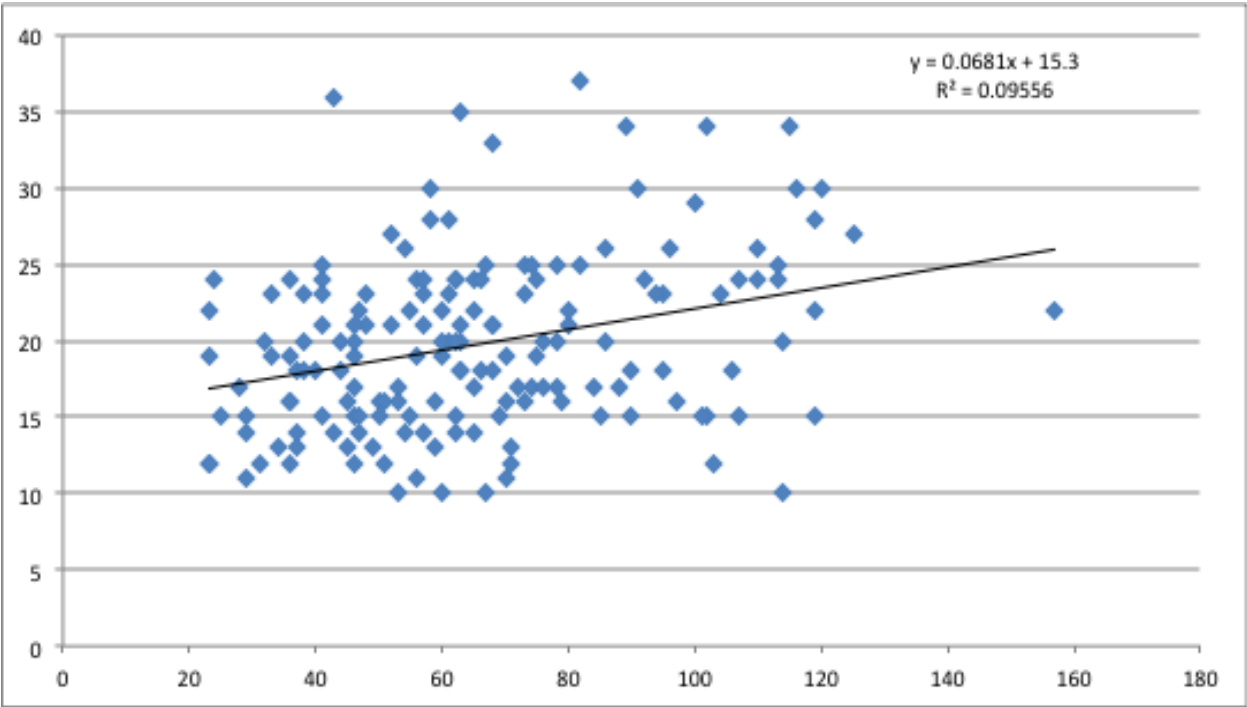
		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Social Phobia Total	Equal variances assumed	7.345	.007	-2.990	162	.003	-12.67239	4.23891	-21.04303	-4.30175
	Equal variances not assumed			-3.345	140.930	.001	-12.67239	3.78796	-20.16097	-5.18381

APPENDIX J: FIGURE 1



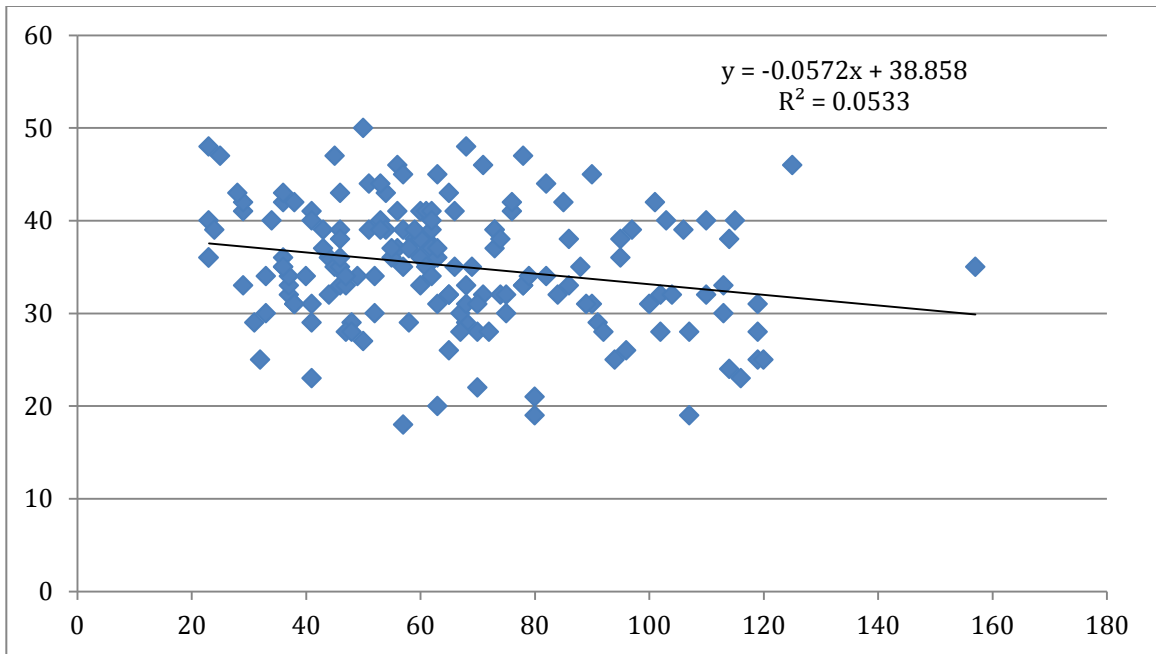
SPAI-23 vs. LOT-R: $r = 0.21$, $p < 0.01$

APPENDIX K: FIGURE 2



SPAI-23 vs Negative Affect subscale $r = 0.31, p < 0.01$

APPENDIX L: FIGURE 3



SPAI vs Positive Affect, $r = -0.25$, $p < 0.01$

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