Easing the Transition to College: Understanding the Mediating Factors of Trait Anxiety

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Abstract

Trait anxiety is known to influence attention, such that those with greater trait anxiety focus more of their attention on items or situations in the environment they view as a stressor. When making the transition to college, either as a traditional student or non-traditional student, being able to cope with the stresses of starting a new school/starting school again, as well as becoming more independent from ones family of origin or maintaining ones independence, can take its toll physically, mentally, and emotionally. Understanding the mediating factors might help predict who is at an increased risk of experiencing trait anxiety. In this study we examine the effects of age, social support, gender, group, marital status, social desirability, stress, family separation, loneliness, and depression as they relate to trait anxiety, in a path analysis model. It was hypothesized that family separation, loneliness, and depression would have direct effects on trait anxiety with the other variables having indirect effects on trait anxiety. In a model only including the significant paths of the full model, family separation did not directly contribute to trait anxiety while, loneliness, depression, social desirability and stress did. The hypothesized model did not perform as well as the full model. Better understanding the variables that contribute to trait anxiety will aid in interventions with the goal of reducing trait anxiety.

Easing the Transition to College: Understanding the Mediating Factors of Trait Anxiety

Adjusting to college can be a difficult time for students transitioning from a routine that is familiar to one that is hard to replicate outside of a university setting. For some it is the first time they are able to live on their own and be responsible for themselves while still involved in academics; for others who have already established themselves as independent from their family of origin and have decided to return to school, they may not struggle to establish their independence, but may struggle with the return to school after taking several years off. Those who actively manage emotions tend to adjust to college better than those who do not (Johnson, Gans, Kerr, & LaValle, 2010).

The purpose of this study is to examine the variables believed to be related to trait anxiety illustrated in a temporal sequence. State and trait anxiety are commonly measured together using the State-Trait Anxiety Inventory (STAI), however in this study we will only be examining trait anxiety because trait anxiety is a measure of personality and state anxiety measures anxiety in specific situations (Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983). Reducing trait anxiety would hopefully translate into a long term change in behavior. Trait anxiety is related to strategies and attitudes people have in general as opposed to state anxiety that occurs in response to events of a particular situation (Pacheco-Unguetti, Acosta, Callejas, & Lupianez, 2010). It is important to note that trait anxiety as measured by the STAI is focused on individual differences in anxiety, and thus a measure of personality: not a measure used to diagnose anxiety disorders (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). Anxiety was found to be significantly and negatively correlated to GPA and one of the major predictors of academic performance (Vitasari, Wahab, Othman, Herawan, & Sinnadurai, 2010). Ideally aiding the transition to

college would reduce anxiety which in turn will increase academic performance and the student's ability to stay in school.

It has been theorized that anxiety affects attention, such that the source of the anxiety will receive more attention than if it was not deemed a threat (Eysenck, Derakshan, Santos, & Calvo 2007). Those with higher trait anxiety are more likely to view items or situations in their environment as threats: and in turn devote attention to them. With more attention to "threats" in the environment, less attention is being given to important topics to college and success in school such as, studying, paying attention in lecture, and organizing house hold chores.

In this study we examine how family separation, loneliness, depression, group (traditional and non-traditional students, marital status (grouped as single, widowed, divorced, separated, vs married), social desirability, stress, age, total social support, and gender directly and indirectly effect trait anxiety. Moving away from the family of origin can be a time full of anxiety. For traditional students the first time they move away from home is typically when they attend college (Patiniotis & Holdsworth, 2005), even though some decide to remain at home and attend college the choice may reflect different levels of college preparedness or financial situations (Turley, 2006). A study by Lee and Robbins (1998) found a negative relationship between social connectedness (which was used to measure loneliness) and trait anxiety. Depression and anxiety are commonly comorbid (Aina & Susman, 2006).

Age and time spent separated from family of origin would be expected to be positively related to each other, the longer someone has been alive, the greater likelihood that they will have spent a longer time away from their family of origin. In this study, by definition, age is related to group because traditional status and non-traditional status is defined by age; those who are of typical college student age (18-22) are considered traditional students and those who are

older are considered non-traditional students. It is expected that age is related to marital status

such that those who are older are more likely to be married than those that are younger (Lehrer,

2008).

It has been found that greater social support is related to less loneliness (Chalise, Saito,

Takahashi, & Kai, 2007). Social support has also been found to relate to depression such that

those with more social support are less likely to have depression (Stice, Ragan, & Randall,

2004). A study examining the relationship between social support and the experience of stress

found that those with greater social support had greater life satisfaction which was defined as

lower stress (Haslam, O'Brien, Jetten, Vormedal, & Penna 2005).

Gender differences have been found when examining social desirability response bias in

ethics research such that, women appear to be more ethical based on self-report data, but after

controlling for social desirability men and women are equivalently ethical (Dalton & Ortegren,

2011). Also, gender differences were found in tactics used to manage the impression one gives to

others. Women tend to be more feminine in nature and submissive when managing their

impression, while men on the other hand tend to behave in ways that are seen as independent and

autonomous and masculine in nature (Guadagno & Cialdini, 2007). Gender differences were

found when examining stress; women were more likely to report being more affected by life

stressors than men (Matud, 2004). Men were also more likely to take an active approach in

dealing with stress. Women, however, were more likely to take passive roles and not address the

source of the stressor directly, and in turn end up being affected by the stressor more greatly.

Those that are non-traditional students are expected to have greater loneliness than

traditional students. The main reasoning behind this prediction is that traditional and non-

traditional students have been found to engage in university life differently (Gilardi &

Gugliemetti, 2011). Traditional student tend to be present more on campus and invest more energy in forming relationships with other students and faculty, while non-traditional students tend to have less of a presence on campus (i.e. attending fewer lectures and on campus activities) and do not put forth as much effort in forming relationships with students and faculty. Being a nontraditional student commonly involves commitments that traditional students do not encounter, such as a full time job or a part time job that is related to their career and takes a significant amount of time and energy on the non-traditional students part (Wyatt, 2011).

A significant part of total social support is significant other social support (total social support is comprised of family, friend, and significant other social support) (Zimet, Dahlem, Zimet, & Farley, 1988). It makes sense that those that are married will tend to have greater significant other social support than those that are single/without a spouse, even if the spouse does not greatly contribute to significant other social support. As mentioned above total social support is related to loneliness such that those with greater social support have less loneliness; significant other being a subscale of total social support it is logical to conclude if marital status is significantly related to loneliness such that those who are married will be less lonely than those that are not married.

Those who have a greater desire to be socially acceptable are expected to be less lonely than those that that do not have a desire to be socially accepted. Those with a high desire of social acceptance are more likely to engage in activities that put them around people resulting in less loneliness, while those who have a low desire to be socially accepted do not feel the need to engage in activities that would introduce them to people. Stress and loneliness have been found to be positively and negatively correlated with one another, such that as stress increases so does loneliness (Yaacob, Juhari, Talib, & Uba, 2009). This is perhaps due to an increase in external

locus of control and a decrease in internal locus of control resulting in one to feel as if they are in less control of their life so do not attempt to fix problems by implementing changes in their behavior or environment (Laursen & Hartl, 2013), including not believing they have the power to alleviate feelings of loneliness. The transition in to university life tends to increase stress for traditional and non-traditional students (Dyson & Renk, 2006). It has been found that stress is associated with depression in the undergraduate population (Sherina, Rampal, & Kaneson, 2004).

It is hypothesized that time spent separated from family, loneliness, and depression will have direct effects on trait anxiety while age will have an indirect effect on trait anxiety via family separation, group and loneliness, and marital status and loneliness; total social support will have an indirect effect on trait anxiety via stress and loneliness, stress and depression, loneliness, and depression; gender will have an indirect effect on trait anxiety via social desirability and loneliness, stress and loneliness, and stress and depression. We expect the hypothesized model to work as well as the full model.

Methods

Participants

A total of four-hundred and five participants took part in the current study, 94.1% (n=381) Caucasian, with the remaining 5.9% (n=24) consisting of black, Asian, native American, Latino, and other; 44.4% (n=180) male, mean age of 28.48 (SD=10.885, R=18-62). Of the 405 participants 50.4% (n=204) were considered "traditional students," that being enrolled at the University of Nebraska-Lincoln and between the ages of 18-20 (Mean age 18.74, SD=0.720). The other 49.6% (n=201) were considered "non-traditional students," that being 30 years of age or older undergraduates enrolled at the University of Nebraska Lincoln (Mean age 38.36,

SD=6.630, R=29-62. Single participants accounted for 59.8% (n=242) of the subjects; married 29.9% (n=121), divorced 9.1% (n=37), separated 0.5% (n=2), and widowed 0.7% (n=3).

Materials

Demographic Information Sheet Participants completed a questionnaire that asked about demographic information which included age, gender, marital status, and number of years they have spent separated from their family.

Multidimensional Scale of Perceived Social Support (MSPSS) The Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, Farley, 1988) was used to measure total social support. The different types of social support that combine to form the total social support score are family social support, friend social support, and significant other social support with 4 items pertaining to each of the three different kinds of social support for a total of 12 items. Participants respond to each item on a 7-point Likert scale ranging from "1-very strongly disagree" to "7-very strongly agree." The scores from each of the subscales are then combined to calculate the total amount of perceived social support, higher score indicative of greater perceived social support.

Marlowe-Crowne Scale of Social Desirability (MCSD) The Marlowe-Crowne Scale of Social Desirability (Crowne & Marlowe, 1960) is designed to measure a person's desire to give the impression they are socially acceptable. The MCSD consists of 33 items (18 in the true direction, 15 in the false direction) with a range of 0-33, and higher scores being indicative of a greater desire of acceptance.

Life Experiences Survey (LES) The Life Experiences Survey (Sarason, Johnson, & Siegel, 1978) is a survey designed to record common stressful events a participant may have encountered in the past year. The LES is comprised of two sections. The first section seeks to

identify common life changes, for example "marriage," "death of a family member" (i.e. grandfather, mother, brother, etc.), "Major change in type or amount of recreation." The second section is designed for students and includes items such as "Beginning a new school experience at a higher academic level (college, graduate school, professional school, etc.)," "Academic probation," "Failing a course." Items are scored on a 7-point scale ranging from "-3 extremely negative" to "+3 extremely positive." Scores can range from -180 to +180 with lower score being indicative of experiencing more stress from life events. To score the LES the items that were answered with a negative number are summed which produces the negative events score; the negative events score is considered one of the best representations of the amount of stress a participant is experiencing (Sarason et al., 1978).

Revised UCLA Loneliness Scale (RULS) The Revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) was used to measure loneliness, and was original developed for use by college students. Twenty statements related to one's subjective thoughts and feelings of loneliness make up the RULS. Examples of the items included are "There is no one I can turn to," and "I have no one to talk to." Participants rate each of the 20 items on a 4 point scale "1-I Have never" to "4- I have felt this way often." Higher score are indicative of greater loneliness.

Beck Depression Inventory (BDI) The Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was used to measure depression. The BDI consists of 21 items that are structured in such a way that participants must select one of four options that best describes them. For example "0-I do not feel like a failure, 1- I feel like I have failed more than the average person, 2- As I look back on my life, all I can see are a bunch of failures, 3- I am a complete failure as a person," and "0- I don't have any thoughts of killing myself, 1- I have thoughts of killing myself, but I would not carry them out, 2- I would like to kill myself, 3- I

would kill myself if I had the chance." To score the BDI the number associated with each answer

selected is summed, higher scores are indicative of greater depression. Scores range from 0-63;

different scores on the BDI are associated with different levels of depression, 1-10 (These ups

and downs are considered normal), 11-16 (Mild mood disturbances), 17-20 (Border line clinical

depression), 21-30 (moderate depression), 31-40 (severe depression), over 40 (Extreme

depression).

State-Trait Anxiety Inventory (STAI) The State-Trait Anxiety Inventory (Spielberger,

Gorsuch, Lushene, Vagg, & Jacobs, 1983) was used to measure trait anxiety. The STAI consists

of 40 total items, 20 of which are related to trait anxiety. Examples of items that target trait

anxiety include, "I am a content; steady person," and "I worry too much over something that

really doesn't matter." Items are answered using a4-point scale "1-almost never," to "almost

always." Trait anxiety scores range from 20-80, with higher scores being indicative of greater

levels of trait anxiety.

Procedure

Participants were recruited based on their status as a "traditional student" (an

undergraduate at the University of Nebraska-Lincoln, enrolled in introduction to psychology, and

were 18-20 years of age) or "non-traditional student" (an undergraduate student at the University

of Nebraska-Lincoln, 30 years or older in age). Traditional students signed up for a meeting with

a researcher to complete collection of questionnaires. Nontraditional students were mailed a

letter stating that they had been selected for a study, and emphasized voluntary participation. A

few days later the collection of questionnaires were mailed to the participant along with a

prepaid envelope, by sending the completed packets back to the researchers the participant

consented to voluntary participation in the study.

Results

A series of regression analyses were run to examine the direct and indirect relationships between trait anxiety and age, total social support, gender, group, marital status, social desirability stress, family separation, loneliness, and depression. Figure 1 shows the full model with the regression weights and residual error, and Table1 shows correlations of the variable in the model. The full model accounted for 56.1% of the variance in trait anxiety with social desirability, stress, loneliness, and depression having significant direct effects and depression having the major contribution. Age had an indirect effect on trait anxiety via group and loneliness, social desirability, social desirability and loneliness, social desirability and depression, stress, stress and loneliness, and stress and depression. Total social support had an indirect effect on trait anxiety via loneliness, stress, stress and loneliness, depression, and stress and depression. Gender had an indirect effect on trait anxiety via depression

The hypothesized model includes a direct effect of family separation, loneliness, and depression, in addition to an indirect effect of age on trait anxiety via family separation, group and loneliness, and marital status and loneliness; an indirect effect of total social support on trait anxiety via loneliness, depression, stress and loneliness, and stress and depression; and an indirect effect of social desirability on trait anxiety via loneliness. The hypothesized model accounted for 52.4% of the variance in trait anxiety, see Figure 2. As hypothesized family separation, loneliness and depression had significant direct effects on trait anxiety with depression having the largest contribution. Total social support had an indirect effect on trait anxiety via loneliness, depression, stress and loneliness, and stress and depression; age had an indirect effect on trait anxiety via family separation, and group and loneliness. However, contrary to the research hypothesis gender was not significantly related to social desirability or

stress, as well as marital status not significantly contributing to loneliness. However this model

did not perform as well as the full model, $Q=0.703$, $W=133.397$, $p<.001$.

A trimmed model that only included significant paths from the full model was also tested.

The trimmed model accounted for 55.0% of the variance in trait anxiety, see Figure 3. All

significant pathways from the full model remained significant after removing non-significant

pathways and the trimmed model performed as well as the full model, $Q=0.946$, $W=21.442$,

$p=.432$.

Discussion

As mentioned above the hypothesized model did not perform as well as the full model.

The paths that were hypothesized to be significant but were not include the paths from marital

status to loneliness, gender to social desirability, and gender to stress. Paths that were significant

but were not hypothesized include the paths of age to social desirability, age to stress, total social

support to marital status, gender to family separation, gender to depression, group to family

separation, marital status to family separation, social desirability to trait anxiety, and stress to

trait anxiety.

When all the significant predictors from the full model are included in the trimmed model

family separation is not significantly related to trait anxiety in the trimmed model, but is

significantly relate to trait anxiety in the hypothesized model. This is most likely due to family

separation being collinear with other predictors in the trimmed model as they relate to trait

anxiety, however, in the hypothesized model the collinear predictors are removed allowing

family separation to significantly contribute to the model. The predictor that contributed the most

to trait anxiety in all three models was depression. This is not surprising due to the high rate of

comorbidity between depression and anxiety (Aina & Susman, 2006).

Contrary to the findings of Matud (2004), no difference in stress was found between males and females. A possible explanation as to why this discrepancy in results occurred may be due to the measures that were used to record stress. In Matud's study the Life Event Stressful Success Questionnaire (LESSQ) designed by Roger and Meadows, Chronic Stress Questionnaire designed by Matud, and Minor Daily Stressor Questionnaire also designed by Matud were used to measure different aspects of stress. In the current study, The Life Experiences Survey (LES) designed by Sarason, Johnson, & Siegel was used to measure stress. Also, no gender differences were found in social desirability. Impression management differences, between males and females, do not directly transfer over to social desirability. Gender differences in depression have been found in previous literature (Parker & Brotchie, 2010), however it was not predicted in this model because it was expected to be collinear with other variables (stress, social desirability, and total social support) and was expected to not be significantly related. Similar to gender and depression, it was expected that stress and social desirability would be collinear other variable in the model as they relate to trait anxiety, thus not contribute uniquely to the model (those other variables being loneliness and depression).

It is worth mentioning a path that was significant but in the opposite direction that was expected. The path of group and family separation indicates a significantly negative relationship between those two variables. It was expected that those who were traditional students would have been separated from their family for a less amount of time than those that are nontraditional students. One possible explanation to this unexpected result is that those who are nontraditional students answered the question, "How long have you been separated from your family?" differently than those who are traditional students. Nontraditional students would have had the

time to start a family of their own, so in answering the question of how long they have been

separated from their family they would have answered "0, no time away from family."

Total social support would seem to be one of the most important variables in the model

that does not directly affect trait anxiety. Trait anxiety is significantly related to stress,

loneliness, and depression. Stress directly affects trait anxiety, as well as indirectly trait anxiety

via loneliness and depression. Several of the variables are unable to be changed by intervention

efforts such as, age, group, family separation, gender, and to an extent marital status. However,

several variable that are directly and indirectly have the possibility of being changed for the

better and ultimately lower trait anxiety by focusing on the mediating variables, such variables

would include total social support, social desirability, stress, loneliness and depression (marital

status may also be included with this group of variables do the persons chose to stay or leave a

relationship). In the developmental of an intervention for trait anxiety social support would be a

recommended place to begin due to its relationship with variable that indirectly and directly

affect trait anxiety, and the ability for those variables to be changed. Social support is known to

lessen the effects of stress, be largely related to depression such that those that have less social

support tend to be more depressed, and has a large role in overall mental health (Turner &

Brown, 2010)

Future research should focus on the unique contributions that the different subscales of

social support (family, friend, and significant other social support) have on the relationship

between predictors and trait anxiety. A major component of this study was separation of

traditional students from non-traditional students. It is possible that the amounts of the different

kinds of social support could vary between the groups such that traditional students would have

greater friend and family social support, Spitzer (2000) found that social support as a whole did

not differ between traditional students and nontraditional students. This does not mean that the

subscales of social support do not differ between traditional and nontraditional students, and as a

result significantly contribute to trait anxiety directly and indirectly in different ways from each

other.

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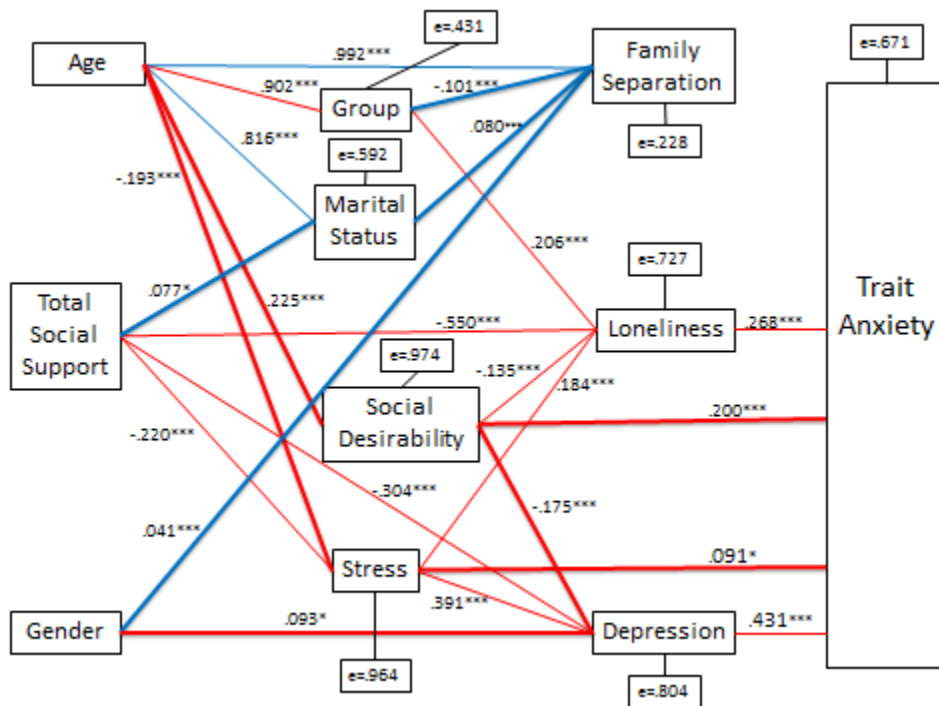
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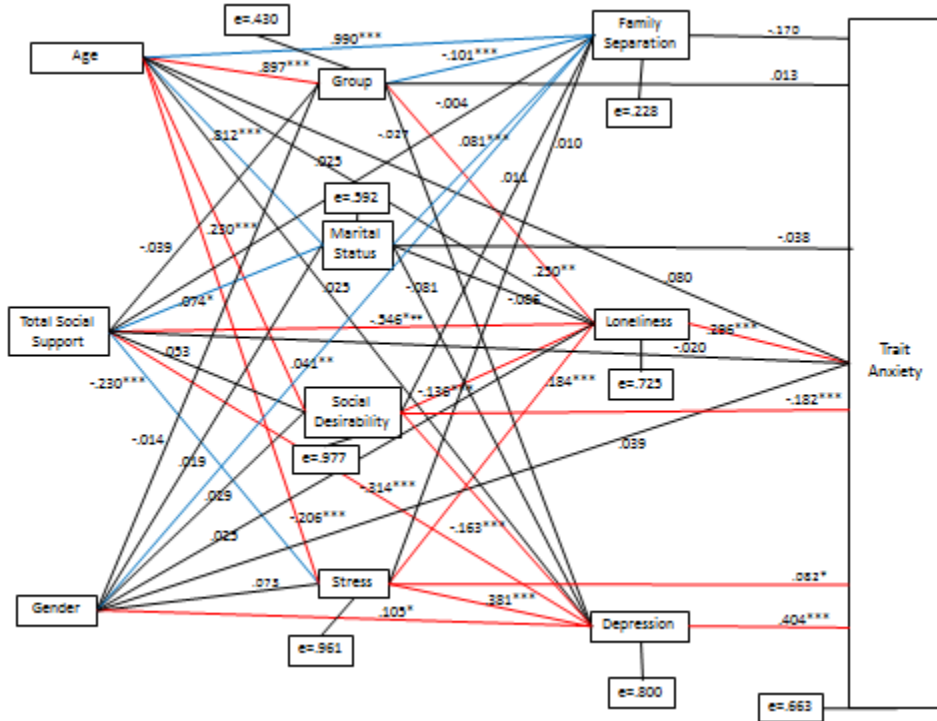
^Red paths significantly contribute to the criterion directly or indirectly

^^Blue paths show significant paths between predictors but do not directly or indirectly

affect the criterion

^^^ Black paths do not significantly contribute to the model

Figure 2
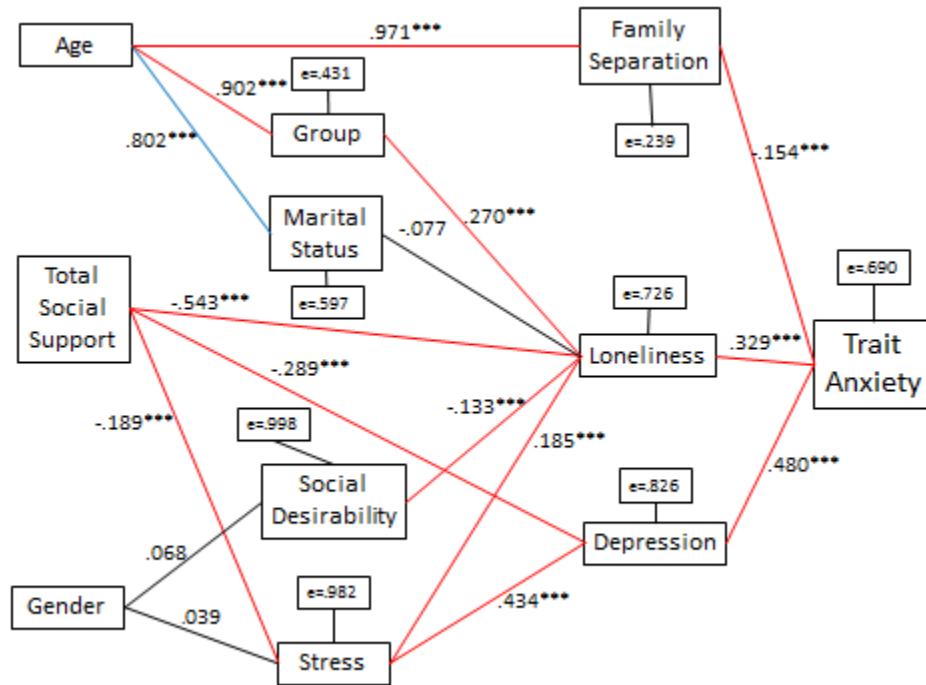
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Figure 3

^Red paths significantly contribute to the criterion directly or indirectly

^^Blue paths show significant paths between predictors but do not directly or indirectly

affect the criterion

^^^ Bolded paths indicate significant paths that were not hypothesized

Table1

Correlations of model variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Trait Anxiety	---										
2. Family Separation	-.127*	---									
3. Loneliness	.554***	.214***	---								
4. Depression	.671***	-.090	.537***	---							
5. Group^	-.089	.863***	.262***	-.084	---						
6. Marital Status^^	-.151**	.800***	.128*	-.127*	.807***	---					
7. Social Desirability	-.369***	.229***	-.142**	-.258***	.202***	.190***	---				
8. Stress	.421***	-.139**	.285***	.487***	-.148**	-.132**	-.217***	---			
9. Age	-.117*	.971***	.225***	-.088	.902***	.802***	.225***	-.154**	---		
10. Total Social support	-.355***	-.164**	-.628***	-.369***	-.201***	-.069	.015	-.185***	-.179***	---	
11. Gender^^^	.018	.186***	-.021***	.055	.113*	.146**	.068	.018	.146**	.109*	---

*p<.05, **p<.01, ***p<.001
^coded as 1=traditional and 2= nontraditional
^^ coded as 1=without spouse (single, divorced separated, widowed) and 2=with spouse (married)
^^^coded as 1=male and 2=female