

THE EFFECTS OF PRIOR SCHOOLING ON THE TRANSITION TO COLLEGE

by

Linley Garofalo

Submitted in partial fulfillment of the
requirements for Departmental Honors in
the Department of Psychology
Texas Christian University
Fort Worth, Texas

May 2, 2014

THE EFFECTS OF PRIOR SCHOOLING ON THE TRANSITION TO COLLEGE

Project Approved:

Supervising Professor: Naomi Ekas, Ph.D.

Department of Psychology

Jamie Hurst, Ph.D.

Department of Psychology

Ronald Pitcock, Ph. D.

John V. Roach Honor's College

ABSTRACT

Many types of schooling are available for students across the United States. However, little is known about the psychological effects of each type of schooling in relation to the transition to college. This study examined relationships between social, emotional, and academic success of students during their transition to college. One hundred thirty eight college sophomores from public school, private school, and homeschool backgrounds were recruited. Students completed the study during the first semester of their sophomore year of college. Each survey contained items that assessed the student's depression and anxiety levels, quality of friendships, academics, and participation in extracurricular activities. Results found that differences between schooling types were absent, but students reported more mental health issues when expressing loneliness, lack of friendships, and low academic success.

TABLE OF CONTENTS

INTRODUCTION	1
REVIEW OF LITERATURE	2
Transition to College.....	2
Academic Success.....	3
Extracurricular Involvement	4
Friendship Quality	6
The Effects of Homeschooling	7
Research Questions and Hypothesis	8
METHOD	9
Participants.....	9
Procedures.....	9
Measures	10
Emotional Well-Being	10
Academics.....	11
Extracurricular Activities.....	12
Friendship	12
RESULTS	14
Descriptives and Correlations.....	14
Differences Based on Prior Schooling Type.....	18
Predictors of Mental Health Status	18
DISCUSSION	20
Differences Between Prior Schooling Types	21

Predictors of Depression and Anxiety	21
Limitations and Future Directions	23
REFERENCES	26

INTRODUCTION

In recent years, choosing the educational setting for a child has become a prevalent topic in the media and among parents. Parents can choose to send their children to prestigious private schools or opt to homeschool their children. Most commonly, parents elect to send their children to public schools. In 2007, approximately 89% of parents chose public school, 9% chose private school and 1.8% elected to homeschool their child (US Department of Education, 2009). Homeschooling, in particular, has increased in prevalence, with researchers estimating that approximately 1.5 million parents selected this path of education in recent years (Martin-Chang, Gould, & Meuse, 2011); however, there is little research examining the effects on children's social and emotional development as the result of being homeschooled. Children who are homeschooled may not have the same academic and extracurricular opportunities that students from traditional educational environments have (Carbonaro & Covay 2010). Therefore, it is important for researchers to examine the long-term effects associated with this educational style, including how children transition to college.

The transition to college is a time of great change for the child, and their prior educational setting may have a strong influence on how students will cope once placed in a structured, and yet very independent, college environment (Cleary, Walter, & Jackson, 2011; Mounts, Valentiner, Anderson, & Boswells, 2006). Although there are many factors that influence parents' decisions on where to educate their children, parents often place more emphasis on opportunities for academic success since it is especially important when applying for a college education. For example, higher grades in high school often lead to greater opportunities to attend a university (Sparkman, Maulding, &

Roberts, 2012). However, the different educational settings (i.e., public, private, and homeschooling) also differ in the emphasis they place on fostering children's social and emotional development. These all combine to influence how well the child transitions academically, socially, and emotionally to college. There have been no studies comparing the transition to college for children from private school, public school, and those who were homeschooled. In addition, although separate studies have focused on examining academic success (Martin-Chang et al., 2011; Smith & Zhang, 2009), extracurricular activities (Baker 2008; Peck, Roeser, Zarrett, & Eccles, 2008), friendships (Mounts, Valentiner, Anderson, & Boswell, 2006; Pittman and Richmond, 2008; Ranney & Troop-Gordon, 2012), and emotional well-being (Cleary, Walter, & Jackson, 2011; Kenyon and Koerner, 2009; Mounts, Valentiner, Anderson, & Boswell, 2006) during the college years, there have been no studies examining the relative contribution of each of these factors.

REVIEW OF LITERATURE

Transition to College

The transition to college can put a large strain on any student, as they are experiencing a vast array of new situations and decisions. First, researchers must examine the emotional well-being of the young adults, as it is pivotal when examining a student's social life and academic success. Kenyon and Koerner (2009) studied college students' mental health in relation to the relationship with their parents. College freshmen took an initial survey upon beginning their college career and took a follow-up survey three months later. Results found that students who were comfortably separated from their parents but maintained a connection displayed the least amount of mental

health problems. In contrast, those who scored low on separateness and connectedness exhibited more symptoms of depression and an overall negative affect.

Although the relationship with parents can affect a student's mental health during the transition to college, many other factors should be noted that could lead to poor mental health during this time. Cleary, Walter, and Jackson (2011) examined research on the mental health of college-age students and the factors that could exacerbate predisposition to poor mental health. College students in general appeared to have more mental disorders than those who were not in college but of the same age group. As can be inferred, academic pressure can lead to students becoming more stressed than usual, which can manifest in anxiety and depression. In short, the present study analyzed these factors as well as expanded upon previous research by analyzing social constructs, such as friendships and extracurricular activities, as well to determine reasons for why college age students exhibit elevated levels of depression and anxiety.

Academic Success

At times, academic success can have less to do with personal characteristics and more to do with how the child is educated. Carbonaro and Convey (2010) studied academic differences between public and private schools after a reform was developed to help close the academic gap between the two. Researchers acquired data from both a private and a public high school and compared scores on various academic achievements, such as math level and scores in that level. Results showed that private school students excelled at mathematics, but were also more likely to take more challenging math classes from the beginning, leading to higher achievements. It appears that private schools may be promoting greater academic achievement, which could carry over into college.

However, there have been no studies examining this important issue. In the present study, I examined the academic ability of the students in both high school (i.e., SAT scores) and their freshman year of college (i.e., freshman GPA), and extended my study to examine whether students' feelings of academic efficacy influenced their adjustment to college.

Extracurricular Involvement

Students' extracurricular involvement often predicts their academic achievement. Broh (2002) studied the academic success of high school students in relation to their extracurricular involvement. Data were collected in 1988 on students ($n=1,052$) in the eighth grade. Students from public, private, and parochial school backgrounds took surveys over relationships, attitudes and schoolwork, and were evaluated two and four years later on academic abilities. Results show that participation in extracurricular activities, ranging from sports, music, student council and other clubs, can both enhance and hinder academic performance based on the extracurricular activities the student is involved in. Interscholastic sports, in particular, had a positive impact on academics.

Because the college experience includes more than just academics, researchers must also analyze factors that can influence academic success other than prior schooling. Baker (2008) examined the relationship between levels of extracurricular involvement and academic success using data from the National Longitudinal Survey of Freshmen (NLSF), a survey that studied students throughout their college years. Participants were of either African American or Latino descent and attended one of 27 colleges. Researchers randomly selected students based on ethnicity and gender who then took the

NLSF five times throughout their college experience: once at the beginning and end of freshman year and once at the end of their sophomore, junior, and senior years. Results were analyzed to compare academic success with level and type of involvement in extracurricular activities. Results differed between racial groups and gender, but consistently showed that academic performance was not affected when students were members of an athletic team. However, academic performance was negatively affected when students were members of a Greek organization across all races and genders. Although extracurricular participation seems to be related to academics, the present study addressed other factors as well, such as quality of mental health, in relation to this involvement.

Since the transition to college can be particularly difficult for some students, it is possible that participation in extracurricular activities can help buffer some of those negative psychological effects. Peck, Roeser, Zarrett, and Eccles (2008) studied extracurricular involvement in relation to resiliency in educationally at-risk teenagers. Researchers interviewed just over 1,000 students during their freshman and junior years of high school, and twice during college. Participants were asked a variety of questions analyzing topics such as personal and social factors, demographic information, and extracurricular involvement. Results showed that participants were much more likely to attend college if they participated in activities at least once per week. Quality of extracurricular activities, rather than quantity, was also relevant in that participants in high quality extracurricular activities showed higher rates of pursuing a college education. Therefore, it is possible that extracurricular activities in college could also promote positive functioning among college students. The current study examined

whether extracurricular activities predicted friendship quality in college as well as decreased mental health problems.

Friendship Quality

Often, students join extracurricular activities to make friends in college; however, some choose to remain friends with those they made in high school in addition to making new friends. Ranney and Troop-Gordon (2012) studied the effects of online friendships on college students and how well these friendships replaced face-to-face friendships in the area of psychological well-being. Participants consisted of a sample of undergraduate students attending a 4-year university. These students completed the Friendship Quality Questionnaire (FQQ), which is a questionnaire about quality of friendships. In addition, the participants completed both the Beck Anxiety Inventory and the Beck Depression Inventory to assess overall mental health. Results showed that students with low-quality friendships in college who also had computer-mediated communication (CMC), or communication with friends online rather than in person, had lower stress, depression, and anxiety levels than those without CMC. However, if the CMC relationships were unsupportive or negative, participants adjusted to college far worse than those with supportive CMC relationships. Friendship quality can affect psychological well-being, and thus was relevant when analyzing the students in my study on levels of anxiety and depression.

Friendship quality can also be highly associated with feelings of loneliness, in addition to the aforementioned elevated levels of depression and anxiety. Pittman and Richmond (2008) studied friendship quality in relation to internal psychological problems (i.e., feelings of low self-worth) during the first year of college. The main focus of the

study was to test for a positive relationship between high levels of friendship and high levels of university belonging and self-esteem. Results partially supported the researchers' hypothesis, high friendship quality simply showing a decrease in internalizing problem behaviors rather than heightened self-esteem or academic competence. Mounts, Valentiner, Anderson and Boswell (2006) assessed similar constructs, finding that loneliness in college freshman was related to higher levels of depression and anxiety. Although researchers did focus on psychological effects of friendships, the present study had a heavier focus on the schooling background of the participant in relation to their quality of friendships and feelings of belonging rather than the relationship between these two constructs.

The Effects of Homeschooling

Although an abundance of research is available on private and public schooling and how these schooling types affect later coping (e.g., Carbonaro & Covey, 2010), homeschooling is an area far less studied. Martin-Chang et al. (2011) examined both homeschooled and traditionally schooled students to compare academic success between the two groups. Prior research in this area typically focused on one of the two sub groups rather than comparing the two groups simultaneously (e.g., Carbonaro & Covey, 2010). Participants consisted of homeschooled children and traditionally schooled children ranging from ages 5 and 10 years old. Mothers of homeschooled children were asked to provide details about their style of schooling. For the purpose of the study, researchers used the more structured homeschooling group in the comparison, but analyzed the less structured group for future research opportunities. Results showed that the structured homeschool children scored highest on all seven subtests, followed by public school

children and unstructured homeschool children respectively. The present study expanded upon this work by examining the social and emotional outcomes associated with previous schooling type.

Research Questions and Hypothesis

The present study hoped to address many of the shortcomings of the previous works. In particular, I addressed the following set of research questions:

1. Does previous schooling type have an impact on a student's academic success, likelihood to join extracurricular activities, and ability to initiate and maintain healthy friendships once they are in college? I hypothesized that differences would be present between the three schooling types. Specifically, I hypothesized that private school students would excel academically and public school students would be more social and have more healthy friendships. In addition, I predicted that homeschool students would lack in social aspects, as they are not as consistently in an environment with many people to socialize with.
2. Does prior schooling impact the student's mental health (e.g., depression) during the transition to college? I hypothesized that private school students would have the least severe mental health problems due to experience with high work load and the stress that often accompanies pressure to succeed academically. I also predicted that homeschool students would possess more mental health problems due to the severe contrast between their previous and current schooling environment.
3. Among the sample of college students, what are the factors that impact a student's mental health status? It was hypothesized that lack of substantial

friendships and low academic success would negatively impact a student's mental health. In contrast, I predicted that joining extracurricular activities would positively impact a student's mental health due to increased socialization and participating in enjoyable activities outside of academia.

METHOD

Participants

The study included 138 students, 41 from private school backgrounds, 89 from public school backgrounds, and seven from homeschooled backgrounds. The majority of the sample consisted of students entering their second year of school, but four of the homeschool students were in different years (two in their freshman year, one in their junior year, and one in their senior year). The study targeted sophomores because of the desire to analyze the college transition, and sophomores were thought to be more likely to recall these details easier than those later in college. The participants included 44 males and 94 females. The ethnicities of the participants were 88.3% Caucasian, 3.6% African American, 4.4% Hispanic, and 3.6% Asian/Asian American. The majority of the sample ($n=124$) was recruited through an online psychology experiment website that allows students to complete surveys for class credit. Students outside of the psychology department ($n=14$) were recruited by way of flyers stating that students who participate will be entered into a drawing to win gift cards. Parental consent was unnecessary, as all participants were of consenting age.

Procedure

Participants signed up for the study through a website through which they could earn credit in their psychology classes for participating. The system screened students for

their year level, as only sophomores or second year students, or students who indicated “other” when responding to schooling type, were eligible to participate. Students who signed up were given a time limit to complete the study. All portions of the study were completed online.

To recruit students outside of psychology classes, flyers containing information about the current study were posted at various locations around campus. Again, only students in their sophomore or second year were eligible to participate. Flyers indicated that participants would be placed into a drawing for gift cards, creating an incentive for students to take the time to complete the survey. Students were required to e-mail the experimenter to determine eligibility (i.e., to make sure they have not received credit for psychology courses through prior participation), and once granted, received the link to the survey. Participants were then able to complete the study online at their own convenience.

Measures

Emotional Well-Being. Participants completed the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). This scale has been shown to be valid and reliable, and is used often to assess depression levels (Price & Macho, 2013; Rutledge, La Guardia, & Bluestein, 2013). Students were asked to reflect on and rate how they felt the previous week. The scale consists of 20 questions with answer choices as follows: 0 = Rarely or none of the time (less than 1 day) , 1 = Some or a little of the time (1-2 days), 2 = Occasionally or a moderate amount of time (3-4 days), and 3 = Most or all of the time (5-7 days). Scores from each column will be added together to produce an overall score. A high score indicates higher levels of depressive symptomatology, a

score of 16 or higher indicating a clinical level of depression. Sample questions include: “I was happy,” “I felt lonely,” and “I enjoyed life.” Internal consistency in this study was high (Cronbach’s $\alpha = .93$).

To assess anxiety, participants completed the State Trait Anxiety Inventory, state version (STAI; Spielberger, Edwards, Montuori, & Lushene, 1973). This measure has been used often to test for anxiety, and is reliable and valid (Wright & Hardy, 2012; Mohiyeddini & Semple, 2013). Participants answered 20 questions on the state scale, scoring each as follows: 1 = not at all, 2 = a little, 3 = somewhat, and 4 = very much so. Higher scores indicate higher levels of anxiety. Sample questions include: “I am presently worrying over possible misfortunes,” “I feel jittery,” and “I feel steady.” A high score indicates heightened levels of anxiety. Internal consistency in this study was high (Cronbach’s $\alpha = .93$).

Academics. In order to measure the students’ academic success, students provided a total Grade Point Average (GPA) for their freshman year. They also provided their SAT/ACT scores upon entering the university. All scores were converted to SAT scores using a conversion table provided by the ACT website (citation?). In addition, the students completed a short survey called the Self-Perception Profile (SPP) for College Students (Neemann & Harter, 1987). This survey contains four questions assessing the student’s perception of how well they are doing or should be doing in school. The student is given two scenarios in each question and is told to choose the description of the student more like his or herself. Then, the student must decide if this description is (a) really true for me, or (b) sort of true for me. Sample items include: “Some students question whether they are very intelligent BUT other students feel they are intelligent” and “Some

students feel like they are just as smart or smarter than other students BUT Other students wonder if they are as smart.” Internal consistency in this study was poor (Cronbach’s $\alpha = .42$).

Extracurricular Activities. Participants were asked to list all extracurricular activities they were involved in during their freshman year and currently in their sophomore year. Once collected, each student’s list was classified based on number of activities and whether or not those activities included an academic or social Greek life activity. Academic Greek life includes organizations that are affiliated with a high GPA in a major or high academic skill.

Friendship. Students completed the R-UCLA Loneliness Scale questionnaire developed by Russell, Peplau, and Ferguson (1978). This survey tested for the amount of loneliness the student had experienced, which could indicate whether or not they feel like they have steady relationships. This questionnaire has high reliability and validity, and has been used many times in relation to friendships (Koc, 2012; Vassar & Crosby, 2008). The scale consists of 20 questions scored on a 4-point scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often). Higher scores indicate higher levels of loneliness. Sample questions include: “I lack companionship,” “My interests and ideas are not shared by those around me,” and “My social relationships are superficial.” Internal consistency in this study was high (Cronbach’s $\alpha = .93$).

The Interpersonal Competence in Peer Relationships Questionnaire (ICQ; Buhrmester, Furman, Wittenberg, & Reis, 1988) was also administered. This scale is comprised of five domains, which include Initiation, Negative Assertion, Disclosure, Emotional Support, and Conflict Management. For the purpose of this study, only the

Initiation subscale was used to assess whether or not students feel as though they are personally seeking out friendships. This measure tested for the participant's ability to initiate friendships, in addition potentially indicating their ability to make friends. The measure is reliable and valid when testing for interpersonal competence (Cacciotti, 2010; McCosker & Moran, 2012). This questionnaire has a total of eight questions scored on a 5-point scale (1 = I'm poor at this to 5 = I'm extremely good at this). A high score indicates better skills at initiating friendships. Sample items include: "Finding and suggesting things to do with new people whom you find interesting and attractive," "presenting good first impressions to people you might like to become friends with (or date)," and "going to parties or gatherings where you don't know people well in order to start up new relationships." Internal consistency in this study was high (Cronbach's $\alpha = .90$).

The final measure of friendship used in the current study was the Inventory of Parent and Peer Attachment (IPPA) questionnaire (Armsden & Greenburg, 1987). This scale consists of three sections, asking participants to rate his or her mother, his or her father, and his or her close friend or friends. For the purpose of this study, participants only answered questions relating to a friend. This measure is reliable and valid and has been used on numerous occasions when assessing feelings of attachment to a friend (Gullone and Robinson, 2005; Essau, 2004). This scale consists of 25 questions and is scored on a 5-point scale (1 = almost never or never true to 5 = almost always or always true). Higher scores indicate a higher level of attachment. Sample items include: "I can count on my friends when I need to get something off my chest," "if my friends know

something is bothering me, they ask me about it,” and “I feel alone or apart when I am with my friends.” Internal consistency in this study was high (Cronbach’s $\alpha = .90$).

RESULTS

The primary goal of this study was to determine if there were differences in mental health status, academics, extracurricular involvement, and friendships based on prior schooling type. However, I was unable to attain an adequate sample of homeschool students ($n=7$) entering their sophomore year of college. Therefore, the results of the analysis of homeschool students were exploratory in nature and I have concentrated on examining differences between students from public and private school backgrounds. Nonetheless, I have included exploratory analyses pertaining to homeschool students, as there are few studies that have analyzed these variables in association with homeschooling.

Descriptives and Correlations

As shown in Table 1, anxiety levels varied between groups. Private school students presented the highest amount of anxiety followed closely by public school students and finally homeschool students. In contrast, depression levels were relatively consistent between groups; however, homeschool and private school students presented slightly more depressive symptoms when compared to public school students. Homeschool students possessed the most symptoms of loneliness and the least amount of friendship quality followed by private school and public school. However, private school students felt the most comfortable initiating friendships followed closely by public school, leaving homeschool to feel the least able. Interestingly, the homeschool population displayed the highest GPA followed by public school and private school

respectively. Finally, public school students on average joined 2.27 extracurricular activities during their freshman year while private school students joined an average of 1.95 activities and homeschool students joined an average of 1.43 activities.

Table 1

Descriptive Statistics for All Dependent Measures: Means and Standard Deviations for Continuous Variables

Variable	Public (n=89)	Private (n=42)	Homeschool (n=7)
	Mean (SD)	Mean (SD)	Mean (SD)
Anxiety	38.31 (12.08)	40.90 (10.53)	34.57 (8.18)
Loneliness	14.78 (10.80)	16.17 (9.99)	17.86 (9.08)
Academic competence	2.81 (0.67)	2.76 (0.53)	2.92 (0.49)
Depression	14.79 (10.46)	16.38 (12.41)	16.43 (11.63)
Friendship quality	68.64 (9.85)	65.14 (19.98)	62.29 (7.99)
Friendship initiation	26.73 (7.38)	27.02 (5.37)	24.71 (6.58)
GPA	3.36 (0.56)	3.25 (0.59)	3.61 (0.51)
Extracurricular	2.27 (1.76)	1.95 (1.72)	1.43 (1.62)

Table 2 shows the correlations between study variables for all students in the study. Loneliness and anxiety were strongly correlated, $r = .46, p < .01$, as were loneliness and depression, $r = .62, p < .01$, and being a member of a social Greek organization, $r = .30, p < .01$. However, feelings of having strong friendships produced a strong negative correlation with loneliness $r = -.62, p < .01$. Anxiety correlated strongly with depression, $r = .62, p < .01$. However, anxiety correlated negatively with feelings of academic competence, $r = -.29, p < .01$, and feelings of having strong friendships, $r = -.32, p < .01$. Interestingly, depression also correlated negatively with feelings of academic competence, $r = -.24, p < .01$, friendship quality, $r = -.48, p < .01$, and friendship initiation, $r = -.19, p < .05$. Academic competence was negatively correlated

with SAT score, $r = .26, p < .01$, GPA, $r = .35, p < .01$, and extracurricular involvement, $r = .29, p < .01$. Being a member of a Social Greek organization correlated positively with depression, $r = .23, p < .01$. Friendship quality positively correlated with friendship initiation, $r = .22, p < .05$, and negatively correlated with social Greek affiliation, $r = -.20, p < .01$. Friendship initiation correlated positively with SAT score, $r = .32, p < .01$, and negatively with being a member of a social Greek organization, $r = -.27, p < .01$. SAT scores correlated positively with GPA, $r = .29, p < .01$. SAT scores correlated positively with extracurricular involvement, $r = .26, p < .01$. Both being a member of an academic, $r = -.28, p < .01$, and social Greek organization, $r = -.20, p < .01$, correlated negatively with extracurricular involvement.

Table 2:

Pearson correlation coefficients for study variables

	1	2	3	4	5	6	7	8	9	10	11
1. Anxiety	-										
2. Loneliness	.46**	-									
3. Academic competence	-.29**	-.18	-								
4. Depression	.62**	.62**	-.24**	-							
5. Friendship quality	-.32**	-.62**	.13	-.48**	-						
6. Friendship initiation	-.16	-.41**	.03	-.19*	.22*	-					
7. SAT Score	-.18*	-.08	.26**	-.11	.09	.32**	-				
8. GPA	-.12	-.11	.35**	-.13	.15	-.05	.29**	-			
9. Extracurricular	-.06	-.16	.29**	-.04	.12	.05	.15	.26**	-		
10. Academic Greek	.04	.01	-.13	-.02	-.003	.03	-.07	-.05	-.28**	-	
11. Social Greek	.07	.30**	-.02	.23**	-.20*	-.27**	-.07	-.09	-.20*	-.10	-

* $p < .05$; ** $p < .01$

Differences Based on Prior Schooling Type

In order to address the first research question, I conducted an Analysis of Variance (ANOVA) to test whether students' academic success, involvement in extracurricular activities, and friendship quality differed as a function of their prior schooling type. As seen in Table 3, only one marginally significant difference was found in feelings of strong, healthy friendships (IPPA). Public school students were significantly more likely to report engaging in healthy friendships as compared to private school and homeschool students. Next, I examined whether students differed on their levels of anxiety and depression in college. An ANOVA was conducted to test this research question. Contrary to my hypotheses, there were no significant differences between the groups.

Table 3

Comparison of Means of Public, Private, and Homeschool Students

Variable	F	df	p
Anxiety	1.25	(2, 135)	.289
Loneliness	0.46	(2, 135)	.632
Academic competence	0.18	(2, 110)	.839
Depression	0.32	(2, 135)	.725
Friendship quality	2.59	(2, 135)	.079*
Friendship initiation	0.35	(2, 135)	.707
GPA	1.32	(2, 127)	.271
Extracurricular involvement	1.07	(2, 135)	.347

Predictors of Mental Health Status

My final research question examined the factors that predict depression and anxiety among all of the students in the sample. Therefore, I conducted separate linear regression analyses with depression as the dependent variable and academic success, extracurricular involvement, and friendship quality as the predictors (see Table 4).

Results showed a significant relationship between three of the variables and depression:

loneliness, $b = .66, p < .01$, academic competence, $b = -4.61, p < .01$, and friendship quality, $b = -.52, p < .01$. These results suggest that for every one unit of depression, loneliness increases, whereas academic competence and friendship quality. A marginally significant relationship was present between depression and feelings of competence in friendship initiation, $b = -.31, p < .05$.

A second set of linear regressions was performed predicting students' anxiety levels (see Table 5). Results showed four variables had significant relationships with anxiety: loneliness, $b = .50, p < .01$, academic competence, $b = -5.58, p < .01$, friendship quality, $b = -.36, p < .01$, and GPA, $b = -6.14, p < .01$. These results suggest that for every one unit of depression, loneliness increases and academic competence, friendship quality, and GPA decrease. The direction of effects were similar to the findings with depression. However, unlike depression, anxiety was related to overall GPA. In both linear regressions, extracurricular involvement did not significantly predict depression or anxiety levels.

Table 4

Linear Regression Table - Depression

Variable	Unstandardized Coefficient		<i>t</i>	<i>p</i>	<i>R</i> ²
	<i>B</i>	<i>SE</i>			
Loneliness	.66	.07	9.29	.00**	.39
Academic competence	-4.61	1.74	-2.65	.01**	.06
Friendship quality	-.52	.08	-6.39	.00**	.23
Friendship initiation	-.31	.14	-2.28	.02*	.04
GPA	-3.93	2.04	-1.92	.06	.03
Extracurricular involvement	-.26	.54	-.47	.64	.00

** $p < .01$; * $p < .05$

Table 5

Linear Regression Table - Anxiety

Variable	Unstandardized Coefficient		<i>t</i>	<i>p</i>	<i>R</i> ²
	<i>B</i>	<i>SE</i>			
Loneliness	.50	.08	6.03	.00**	.21
Academic competence	-5.58	1.74	-3.21	.00**	.09
Friendship quality	-.36	.09	-3.98	.00**	.10
Friendship initiation	-.26	.144	-1.83	.07	.02
GPA	-6.14	2.12	-2.90	.00**	.06
Extracurricular involvement	-.37	.56	-.65	.52	.00

***p* < .01

DISCUSSION

The main goal of this study was to determine whether the transition to college was different for students from different schooling backgrounds (i.e., public, private, and homeschool). In addition, I examined mental health and how this is affected by the transition to college and whether there were specific factors that affect mental health within the first year of school. Mental health during the transition to college has been found to be negatively affected (Cleary, Walter, and Jackson, 2011; Kenyon & Koerner, 2009), and the findings of this study were consistent with previous research. The findings expand on previous research, particularly in the homeschool group, by including many social and academic factors and examining differences between the three school types. Overall, the results of this study suggest that there are no differences between students based on their prior school. However, several interesting findings emerged when examining the predictors of mental health status for all of the students.

Differences Between Prior Schooling Types

The current study did not find significant differences on any of the variables of interest between the three school types. There are several possible reasons for these findings. There is a possibility that a stigma is present among types of schooling, which could lead both students and parents to select a schooling type based on how others view the students. For example, people might assume that private school students would perform the best academically, a thought supported by Carbonaro and Convey (2010). However, empirical evidence in the present study suggests that there are no differences between the three types of schooling across many factors, including academic success. Having noted this, the results lead me to a few important questions. First, should parents be concerned if, for example, they do not have the funds to send their children to private school? The average private school costs about \$8,500 per year (Council for American Private Education), a price many parents cannot fathom paying. My study suggests that public school children fare just as well as private school children in many areas of functioning. Additionally, should parents be concerned about their child's social growth if they choose to homeschool? A recent study shows that 35% admissions counselors indicated that homeschool graduates would not cope as well socially as typical high school students without being presented with any empirical evidence (Jones & Gloeckner, 2004). Although homeschool students might be perceived as "socially awkward," results from this study show that this group is just as capable of having quality friendships and feels comfortable initiating them. In summary, this stigma is merely a perception, not necessarily a fact.

Predictors of Depression and Anxiety

Just as stigmas are present with schooling type, stigmas also appear when discussing mental health. The present study also examined the predictors of mental health status, including academics, extracurricular involvement, and friendship quality. According to research, the transition to college is a period of great stress for students (Cleary, Walter, & Jackson, 2011; Kenyon & Koerner, 2009). Therefore, I sought to examine the factors that predict elevated levels of depression and anxiety in students. Loneliness, low friendship quality, and feelings of poor friendship initiation skills predicted depression. It can be inferred that having either low quality friendships or simply a lack of friendships could lead a student into a place of feeling inadequate or perhaps unworthy of friends and ultimately lead to depression. Surprisingly, being a member of a social Greek organization predicted elevated levels of depression. It is possible that depression could arise from the pressure to conform. Conformity is commonly observed in social Greek organizations as seen in a study conducted by Huchting et. al. (2011) that examined why Greek affiliated members consume alcohol. A student might desperately want to fit in, and perceive that by joining a fraternity or sorority, he or she would then be a part of something. However, it is possible that the student might feel a lack of individualization, which would cause him or her to feel depressed. Feelings of depression might also arise due to unmet expectations of joining a fraternity or sorority. A student, who feels a strong desire to “fit in,” but does not, might expect to suddenly be popular and have an abundance of new friends. If and when this expectation is not met, the student might feel hopeless, leading to depressive symptoms.

Like depression, anxiety was associated with many factors, some identical to those that predicted depression. In particular, loneliness predicted elevated levels of anxiety as did low friendship quality. If a student feels like he or she has no high quality friendships, it is logical to think that anxiety would increase. It is possible that this student does not have a close friend to talk with when he or she is feeling stressed and overwhelmed, causing his or her anxiety to increase not only from the stress but also from feeling so alone and not being able to process through their problems with others. Additionally, ill feelings of academic competence and low SAT scores and GPA predicted anxiety. It is possible that a student would feel more anxious if he or she did not feel that their academic performance was adequate, as much of the stress in college is weighted in academics.

As discussed above, friendship quality can heavily affect mental health outcomes. Research shows that students with higher-quality friendships have fewer symptoms of depression and anxiety (Ranney & Troop-Gordon, 2012). My study supported these results, with quality friendships predicting lower levels of depression and anxiety. Probably most puzzling is that students who indicated that they had weaker friendships showed a relationship with being in a social Greek organization. These results indicate the possibility of these organizations unintentionally fostering lower quality friendships, even though their purpose is often perceived to be in the interest of promoting friendship and social growth. In addition, members of social Greek organizations reported less confidence in initiating friendships. It is possible that students join these organizations to improve these skills, and when this wish is not fulfilled, mental health can decrease.

Limitations and Future Directions

Although this study found several interesting results, there are limitations that merit discussion. Although researchers were interested in homeschooling, due to the low number of students who are homeschooled during high school, I was unable to obtain an adequate sample. Therefore, it is possible that the lack of differences between groups is due to the small number in the homeschool group. Nonetheless, this preliminary data provides an important first look at this overlooked population. Future research should also consider differences between types of homeschooling. As outlined in a study by Martin-Chang, Gould, and Meuse (2011), homeschooling can be divided into two groups: structured and unstructured homeschooling. Structured homeschooling follows strict criteria typically prepared by an outside source. Unstructured homeschooling allows students to make up their own criteria and learn what they want. Studies are lacking in analyzing the effects of these less common types of schooling.

In addition to small sample size, reliability of measures can affect results. The Self-Perception for College Students produced low reliability (Cronbach's $\alpha = .42$), possibly due to the fact that many participants did not complete the survey correctly, and therefore, their results on this measure were removed. In the future, it would be wise to alter the online quiz to not allow participants to proceed without properly filling out the survey instead of producing an incomplete or incorrect survey result. Alternatively, selecting a different questionnaire may be appropriate for an online study.

Socioeconomic status (SES) among my sample was potentially another factor that could have affected results. My sample was derived from a four-year private university, and it can be inferred that the SES of these students is higher than, for example, a student

attending a two-year community college. Having high SES can lead to better opportunities to gain higher education as well as attain emotional and mental health resources such as counseling (e.g., An, 2013). In the future, it would be advised to gain a sample from many different types of universities as well as students from many different high school backgrounds.

Finally, my sample was composed of sophomores, and this might not be the right age to fully capture the immediate transition to college; rather, I am relying on students to remember how they were feeling months prior to the survey. In the future, a longitudinal study would be highly beneficial in tracking the changes during the college transition. This way, the researcher can collect data on feelings during the transition rather than after, as exemplified in this study. Research should begin during the final year of high school and then question students again throughout their first year in college.

After analyzing the results of this study, it is important to realize that this study was performed in anticipation of finding differences between the three schooling types. However, the present study shows that no differences occurred. While these results are significant in many ways, the anticipation is also equally important. Research is not abundant in analyzing differences in schooling type, which has lead researchers to make hypotheses about what other research could lead to in the future. It is possible that these hypotheses were the result of stigma surrounding schooling type. Perhaps the stigmas that are presently surrounding schooling type (i.e., private school students are smartest, homeschool students cannot adapt well in a social setting) are there due to a lack of research conducted to counteract those ideas. Research in these areas is crucial to education nationwide, as negative stigmas can become part of a person's identity and lead

to problems in their future. If differences are truly present, it is upon us to make accommodations to provide an equal playing field for students across America.

REFERENCES

- An, B. P. (2013). The influence of dual enrollment on academic performance and college readiness: Differences by socioeconomic status. *Research In Higher Education, 54*(4), 407-432. doi:10.1007/s11162-012-9278-z.
- Armsden, G.C. & Greenberg, M.T.. (1987) Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 1987, 16*, 427-454.
- Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education, 11*(3), 273-298.
- Broh (2002). Linking Extracurricular Programming to Academic Achievement: Who Benefits and Why? *Sociology of Education, 75* (1). 69-95.
- Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology, 55*(6), 991-1008.
- Cacciotti Sherburne, S. (2010). College athletes' perceptions about relational development, communication and interpersonal competence. Dissertation Abstracts International Section A, 70.
- Carbonaro, W., & Covay, E. (2010). School sector and student achievement in the era of standards based reforms. *Sociology of Education, 83*(2), 160-182.
doi:10.1177/0038040710367934

- Cleary, M., Walter, G., & Jackson, D. (2011). 'Not always smooth sailing': Mental health issues associated with the transition from high school to college. *Issues In Mental Health Nursing*, 32(4), 250-254. doi:10.3109/01612840.2010.548906
- Council for American Private Education. (n.d.). Retrieved from <http://www.capenet.org/facts.html>
- Essau, C. A. (2004). The Association between family factors and depressive disorders in adolescents. *Journal of Youth and Adolescence*, 33(5), 365-372.
- Gullone, E., & Robinson, K. (2005). The Inventory of Parent and Peer Attachment--Revised (IPPA-R) for Children: A Psychometric Investigation. *Clinical Psychology & Psychotherapy*, 12, 67-79.
- Huchting, K. K., Lac, A., Hummer, J. F., & LaBrie, J. W. (2011). Comparing Greek-Affiliated Students and Student Athletes: An Examination of the Behavior-Intention Link, Reasons for Drinking, and Alcohol-Related Consequences. *Journal Of Alcohol & Drug Education*, 55(3), 61-81.
- Jones, P., & Gloeckner, G. (2004). Perceptions of and Attitudes Toward Homeschool Students. *Journal Of College Admission*, (185), 12-21.
- Kenyon, D., & Koerner, S. (2009). College student psychological well-being during the transition to college: Examining individuation from parents. *College Student Journal*, 43(4, PtA), 1145-1160.
- Koc, Z. (2012). Determination of older people's level of loneliness. *Journal Of Clinical Nursing*, 21(21-22), 3037-3046.
- Martin-Chang, S., Gould, O. N., & Meuse, R. E. (2011). The impact of schooling on academic achievement: Evidence from homeschooled and traditionally schooled

- students. *Canadian Journal Of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 43(3), 195-202.
- McCosker, B., & Moran, C. C. (2012). Differential effects of self-esteem and interpersonal competence on humor styles. *Psychology Research and Behavior Management*, 5. 143- 150.
- Mohiyeddini, C., & Semple, S. (2013). Displacement behaviour regulates the experience of stress in men. *Stress: The International Journal on the Biology of Stress*, 16(2), 163-171.
- Mounts, N. S., Valentiner, D. P., Anderson, K. L., & Boswell, M. K. (2006). Shyness, Sociability, and Parental Support for the College Transition: Relation to Adolescents' Adjustment. *Journal of Youth and Adolescence*, 35(1), 71-80.
- Neeman, J. (1986). Self-concept in college students: Theory and measurement. Unpublished honors thesis, University of Denver.
- Peck, S. C., Roeser, R. W., Zarrett, N., & Eccles, J. S. (2008). Exploring the roles of extracurricular activity quantity and quality in the educational resilience of vulnerable adolescents: Variable- and pattern-centered approaches. *Journal of Social Issues*, 64(1), 135-155.
- Pittman, L. D., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *Journal of Experimental Education*, 76(4), 343-361.
- Price, S., & Masho, S. W. (2013). What does it mean when we screen? A closer examination of perinatal depression and psychosocial risk screening within one

mch home visiting program. *Maternal And Child Health Journal*, 17(5).

doi:10.1007/s10995-013-1317-7

Radloff, L.S. (1977) The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.

Ranney, J. D., & Troop-Gordon, W. (2012). Computer-mediated communication with distant friends: Relations with adjustment during students' first semester in college. *Journal of Educational Psychology*, 104(3), 848-861.

Russell, D , Peplau, L. A.. & Ferguson, M. L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, 42, 290-294.

Rutledge, C. M., La Guardia, A. C., & Bluestein, D. (2013). Predictors of self- efficacy for sleep in primary care. *Journal of Clinical Nursing*, 22(9-10), 1254-1261.

Smith, W. L., & Zhang, P. (2009). The academic ethic and the transition to college. *College Student Journal*, 43(1), 86-98.

Sparkman, L. A., Maulding, W. S., & Roberts, J. G. (2012). Non-Cognitive Predictors of Student Success in College. *College Student Journal*, 46(3), 642-652.

Spielberger, C.D., Edwards, C.D., Montuori, J., & Lushene, R. (1973). State-Trait Anxiety Inventory for Children. Palo Alto, CA: Consulting Psychologist Press.

US Department of Education. (n.d.). Retrieved from
<http://nces.ed.gov/fastfacts/display.asp?id=91>

Vassar, M., & Crosby, J. W. (2008). A reliability generalization study of coefficient alpha for the UCLA Loneliness Scale. *Journal of Personality Assessment*, 90(6), 601-607.

Wright, L., & Hardie, S. M. (2012). Are left-handers really more anxious?. *Laterality: Asymmetries Of Body. Brain and Cognition, 17(5)*, 629-642.